

**National Park Service
US Department of the Interior**



**Everglades National Park
Florida**

**General Management Plan / East Everglades Wilderness Study /
Environmental Impact Statement**

Record of Decision

Recommended:

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Date:

10/20/2015

Approved:

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Date:

10/23/15

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

RECORD OF DECISION

GENERAL MANAGEMENT PLAN / EAST EVERGLADES WILDERNESS STUDY /
ENVIRONMENTAL IMPACT STATEMENT

Everglades National Park
Florida

The Department of the Interior, National Park Service (NPS), has prepared this “Record of Decision” (ROD) on the *Final General Management Plan / East Everglades Wilderness Study / Environmental Impact Statement* (Final Plan) for Everglades National Park (park). This record of decision includes a background description of the project, a statement of the decision made, a listing of mitigation measures to avoid or minimize environmental harm, a synopsis of other alternatives considered, the basis for the decision, a determination of nonimpairment of park resources and values for the preferred alternative, a description of the environmentally preferable alternative, and an overview of public and agency involvement in the decision-making process.

BACKGROUND OF THE PROJECT

Everglades National Park, encompassing 460,000 acres, was dedicated in 1947. As a result of various boundary changes and additions, the park now comprises 1,509,000 acres, including the largest legislated wilderness area (1,296,500 acres) east of the Rocky Mountains.

The last comprehensive planning effort for the park was completed in 1979. Much has occurred since then—patterns and types of visitor use have changed, the *Comprehensive Everglades Restoration Plan* was approved, and in 1989, the East Everglades Addition (109,600 acres) was added to restore Northeast Shark River Slough and enhance freshwater flows from the northern end of the park to Florida Bay. Recent studies have enhanced NPS understanding of resources, resource threats, and visitor use in the park. This General Management Plan (GMP) is intended to provide updated management direction for the entire park, including the East Everglades Addition. The plan is needed to:

- Confirm the purpose, significance, and special mandates of the park.
 - Clearly define resource conditions and visitor uses and experiences to be achieved in the park.
 - Provide a framework for park managers to use when making decisions about how to best protect resources, how to provide quality visitor opportunities, how to manage visitor use, and what kinds of facilities, if any, to develop in and near the park.
 - Ensure that the foundation for decision making has been developed in consultation with interested stakeholders and adopted by NPS leadership after an adequate analysis of the benefits, impacts, and economic costs of alternative courses of action.
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The Final Plan presents and analyzes four alternative ways of managing the park—alternative 1 (no action) and three action alternatives: the NPS preferred alternative, alternative 2, and alternative 4. (Alternative 3 was dismissed from detailed analysis as explained later in this document.) Alternative 1 provides a baseline for evaluating changes and impacts of the three action alternatives. No wilderness is proposed for the East Everglades Addition in alternative 1. The NPS preferred alternative supports restoration of natural systems while providing improved opportunities for quality visitor experiences. It proposes about 42,200 acres for designation as wilderness and about 43,100 acres for designation as potential wilderness within the East Everglades Addition. Alternative 2 would strive to maintain and enhance visitor opportunities and protect natural systems while preserving many traditional routes and ways of visitor access. It proposes 39,500 acres for designation as wilderness within the East Everglades Addition. Alternative 4 would provide a high level of support for protecting natural systems while improving opportunities for certain types of visitor activities. Alternative 4 would eliminate commercial airboat tours within the park. It proposes 42,700 acres for designation as wilderness and 59,400 acres for designation as potential wilderness within the East Everglades Addition.

STATEMENT OF DECISION MADE (SELECTED ACTION)

Summary

With the selected action, labeled as the “NPS preferred alternative” in the Final Plan, the park will be managed to support restoration of natural systems and protection of cultural resources while providing improved opportunities for a quality visitor experience. Maps depicting zones and other features of the selected action are contained in Attachment 3. Desired resource conditions and visitor experiences will be achieved through the use of management zoning and collaborative techniques such as adaptive management, user education, and a national park advisory committee focused on shallow-water marine resources and use. This concept is represented in management zoning by establishing pole/troll and pole/troll/idle zones over most of the most shallow areas of Florida Bay (submerged marine wilderness); establishing frontcountry and backcountry zones as well as identifying proposed wilderness and proposed potential wilderness in portions of the East Everglades Addition to provide a variety of visitor experiences; and identifying certain segments of the newly identified Everglades Paddling Trail with seasonal backcountry (nonmotorized) and slow-speed zones, to provide an enhanced range of experiences in the gulf coast area of the park (see attachment 3).

Adaptive management will be used to improve success at achieving desired conditions for natural and cultural resources and visitor experiences. The National Research Council, part of the Academy of Sciences, defines adaptive management as

[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 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.

Adaptive management focuses on learning and adapting through partnerships of managers, scientists, and other stakeholders who learn together how to create and maintain sustainable ecosystems and the desired conditions identified in the plan.

MANAGEMENT STRATEGIES OF THE SELECTED ACTION

PARKWIDE PROGRAMS AND PROCESSES

- An adaptive management program will be developed to evaluate the success of management actions in achieving desired resource and visitor use conditions and modify management strategies as needed to improve success in achieving desired conditions.
- An Everglades National Park Advisory Committee, composed of diverse stakeholders, will be established to help park managers consider various perspectives on park issues associated with its vast shallow-water marine resources, particularly adaptive management and the efficacy of the boater education and zoning strategies.
- A user capacity program will be implemented to assist in managing the levels, types, and patterns of visitor use to preserve park resources and the quality of the visitor experience.
- A comprehensive cultural resource management program will be established, focusing on efforts to inventory, document, and protect all types of cultural resources; regularly monitor archeological sites and other historic resources; interpret selected cultural sites for the public; and interpret and protect ethnographic resources in consultation with federally recognized American Indian tribes and other organizations and entities traditionally associated with the park.
- A strong natural resource management program will be developed to support implementation of desired conditions described in the General Management Plan, implement natural resource components of the plan, and contribute to the adaptive management and user capacity components of the plan.
- A mandatory boater education and permit program will be implemented to provide all boaters with information, not only on boat safety in the park, but also on the key element of the plan related to use of the park's marine areas. This information will help them avoid harming shallow sea bottom, seagrass, and wildlife, and operate watercraft in a manner that respects other users. This program will encourage boaters to become partners in resource stewardship. Operators of all boats—motorized and nonmotorized—using park waters will receive program information, which could be tailored to type of use and/or type of trip (motorboat vs. paddler, short- vs. long-term trips, guided trips, etc.). The education course will be made as widely accessible and convenient as possible (e.g., on the Internet, web-based applications, at visitor contact stations, at marinas, at gateway communities, and possibly in mobile learning centers). Details of this education and permitting system will be developed separately from the management plan with input from the public. The education program will take advantage of the lessons learned from the National Parks and Conservation Association-led Eco-Mariner Program, launched in 2009, with a broad range of program partners.
- ~~A wilderness stewardship plan will be developed to support long-term management of the Marjory Stoneman Douglas Wilderness.~~

- A boating safety and resource protection plan will be developed, addressing boating in the marine waters of Florida Bay, the Gulf Coast, and Ten Thousand Islands in more detail regarding visitor safety and resource protection.

PARKWIDE VISITOR EXPERIENCE AND FACILITIES

- As funding permits, Flamingo Visitor Center and other facilities will be improved or upgraded while preserving the historic integrity of the Mission 66 District as outlined in the *Flamingo Concession Services Plan*. The concession operation at the Gulf Coast Visitor Center in Everglades City will offer expanded opportunities to visit Ten Thousand Islands, Gulf Coast, and Wilderness Waterway through boat tours and canoe/kayak rentals. Other commercial services will be investigated to provide visitors with more opportunities such as interpretive, fishing and paddling tours. Additional land-based interpretive programs and activities will link the park and neighboring communities.
- A new Marjory Stoneman Douglas Visitor Center will replace the existing visitor and administrative facilities at Everglades City and include concessions operations.
- Small facilities will be constructed to provide visitors with orientation information and will likely be operated in partnership with other agencies and organizations in the Homestead/Florida City area, along Tamiami Trail, and in the Key Largo area.
- New campsites or camping platforms (chickees) will be established in Florida Bay, the East Everglades Addition, and in Ten-thousand Islands and the backcountry along the Gulf Coast. Guidance from the wilderness stewardship plan will identify the most suitable locations and ensure that their development and maintenance occurs in a manner that protects wilderness character.
- The collections management center, where museum items and artifacts are stored, will be relocated to a new facility in the park, providing an opportunity for the public to view these items.

PARK OPERATIONS AND FACILITIES

- A new East Everglades administration/operations center will be established near but outside the park on land near Chekika, a former state recreation area.
- The National Park Service will strive to consolidate facilities in a more central location along Tamiami Trail, and will coordinate with other land management agencies to share equipment and resources for improved operational efficiency.
- An additional 35 full-time equivalent (FTE) employees throughout the park will be needed to implement this alternative.

AREA-SPECIFIC MANAGEMENT ACTIONS

A variety of specific actions will be taken under the selected action throughout the park. Several of the key actions are listed below. For more details, see attachment 3 and the “NPS Preferred Alternative” in the *Final General Management Plan / East Everglades Wilderness Study / Environmental Impact Statement*.

Florida Bay

- New idle-, slow-speed, and on-plane corridors will be added to the existing network of channels/access routes to improve visitor enjoyment and safety, while protecting shallow-water resources. In addition, several changes to the existing channels/access routes have been made to enhance resource protection and visitor safety and enjoyment in light of the newly added corridors in the preferred alternative. These changes are depicted in the preferred alternative maps¹ and include: (1) Dump Keys Channel moved slightly to the south, (2) North Jimmy Channel moved slightly to the north, (3) Twisty Mile Channel changed from on-plane to idle-speed corridor, (4) removal of Twin Key Channel (similar access is provided at nearby Barnes and Gopher Key Channels), (5) removal of Ramshorn Cut, and (6) adding Bob Allen Pass as on-plane corridor while removing nearby Pollock Key Channel and Bob Allen South Cut.
- Approximately 102,800 acres in the shallows of the bay (26% of Florida Bay waters within the park) will be managed as a pole/troll zone and approximately 24,600 acres (6% of Florida Bay waters) will be managed as pole/troll/idle zones. The designation of these zones will change the way visitors access and use these areas.
- Portions of the waters along the north shoreline of Florida Bay will be managed as idle speed, no-wake areas. A 300-foot-wide idle speed, no-wake area will be designated along the mainland shoreline from Middle Cape eastward to Shell Creek (west end of Long Sound) to reduce shoreline erosion from motorboat wakes, improve safety and experiences for those on the shoreline or boating close to the shoreline, and better protect wildlife.
- Shoreline pole/troll zones in eastern Florida Bay as shown in the “Florida Bay Management Zones – NPS Preferred Alternative” map are specific to shorelines along Blackwater Sound, Little Blackwater Sound, Shell Key, the Boggies, and Little Buttonwood Sound. The pole/troll zone for these areas would extend out 300 feet from the shorelines of these areas (with the boat access zone beyond that).
- Long Sound will be in the boat access zone with an idle speed-no wake buffer along its shorelines to improve paddling experiences. Additional paddling access will be provided via a car-top boat launch along the 18-mile stretch of US 1, in partnership with the Florida Department of Transportation and others.
- All areas of Crocodile Sanctuary (Little Madeira Bay and numerous other connected ponds and creeks), except Joe Bay and Snag Bay, will remain closed to public use and managed as a special protection zone.
- Joe Bay and Snag Bay will be reopened for paddling use and catch and release fishing only. Access to this area will be via Trout Creek and Trout Lake (which connects directly to Joe Bay via four small creeks, which are in the backcountry zone and where paddling only use will begin). The southern portion of Trout Creek will have on-plane access and the northern portion will have idle speed into the Trout Lake mooring area. The rest of Trout Lake will be managed as a pole/troll zone.
- A formal seagrass restoration program for submerged marine wilderness resources and sites damaged by groundings and propeller scarring will be established.

¹ The maps for the (1) NPS Preferred Alternative, and (2) NPS Preferred Alternative- Florida Bay Management Zones contained in attachment 3 have been updated from the versions published in the Final Plan to show more accurately and completely how a small number of channels or access routes have been relocated or eliminated under the preferred alternative to provide better resource protection and visitor safety and enjoyment. These changes reflect the decisions reached by the National Park Service based on comments received and analysis conducted on the draft General Management Plan.

East Everglades Addition

- About 27,300 acres in the northwest portion of the East Everglades Addition (zoned frontcountry) will provide a variety of visitor opportunities, including motorized activities, while the remainder of the area will provide nonmotorized opportunities.
- Private airboating (subject to provisions in the East Everglades Expansion Act) will be allowed in the 27,300-acre frontcountry zone on designated routes and under other conditions necessary for the protection of the park's biological resources. A private airboat permit system will be implemented.
- Commercial airboats (consistent with the provisions of the East Everglades Expansion Act) would operate within a 16,400-acre portion of the frontcountry zone on designated routes and under other conditions described in NPS concession contracts. All existing commercial airboat properties will be acquired by the United States.
- About 42,200 acres of the East Everglades Addition will be proposed as designated wilderness, and about 43,100 acres will be proposed as potential wilderness.
- Canoe/kayak launches will be provided along Tamiami Trail, allowing both short- and long-distance paddling opportunities. The locations of these access points will be coordinated with Tamiami Trail Modifications: Next Steps. Permits will be required for overnight use in the East Everglades Addition. Long-distance paddling routes (unmarked) will allow visitors to connect through Shark River Slough to the main park road, Everglades Paddling Trail, or Whitewater Bay / Gulf of Mexico.
- Tree islands in both the frontcountry and backcountry zones will be identified for day and camping use.
- Chekika will be open at least seasonally as a day use area with enhanced education and recreation programs. Borrow pits/ponds in and around Chekika will be filled in and restored to provide more natural conditions.
- Education and recreational opportunities (e.g., hiking, bicycling, wildlife viewing, and learning about Everglades restoration and history) will be expanded along Tamiami Trail, around SW 237th Avenue near Chekika, at some tree islands, and along the park's eastern boundary.

Everglades Paddling Trail

- A new 120-mile Everglades Paddling Trail will be established to provide enhanced backcountry experiences that are more consistent with wilderness values and offer a less-traveled option to the existing wilderness waterway. To provide these experiences, a few segments will be treated as seasonal backcountry (nonmotorized) and slow-speed zones. These segments are depicted in the preferred alternative map and include: (1) Turner River from the Big Cypress National Preserve boundary to confluence with Hurdles Creek as a slow-speed segment, (2) a portion of the Wood River as a backcountry segment, (3) the Shark River chickee to Watson River chickee as a backcountry segment, and (4) the Hells Bay Canoe Trail extending as a backcountry segment from Lard Can campsite to Pearl Bay and Hells Bay chickee. The route will be minimally marked.

- The Hells Bay canoe trail from the main park road to Lard Can Chickee will be managed as a year-round paddling only trail. The trail from Lard Can Chickee to the Pearls and Hells Bay Chickee will be managed as a seasonal backcountry (nonmotorized) paddling trail.²

MANAGEMENT ZONES

The building blocks for a general management plan are the management zones (discussed in this section) and the alternatives (discussed in the next section). All are developed within the scope of the park's enabling legislation, purpose, significance, subsequent legislation, and special mandates.

Management zones are descriptions of desired conditions for park resources and visitor experience in different areas of the park. Each management zone description includes desired conditions for natural and cultural resources, visitor opportunities and experiences, appropriate facilities, and management/research activities. Important or sensitive natural and cultural resources are found parkwide and therefore occur in multiple zones. The management approach identified for these resources can vary as indicated in the desired resource conditions presented for each zone. The management zones for the park were first presented to the public in May 2007 in GMP Newsletter 4—they were then revised based on public comment and further consideration. The following seven management zones have been defined for the park. See chapter 2 of the Final Plan for more details on management zones, including desired resource conditions and visitor amenities. See attachment three for the application of zones within the selected action.

Developed Zone

This zone contains the main visitor facility and service areas, including facilities and services related to visitor orientation and information. This zone also accommodates NPS operational facilities. This zone does not occur in designated wilderness.

Frontcountry Zone

This zone contains easily accessible attraction areas that provide opportunities for many visitors to enjoy and learn about the park. This zone does not occur in designated wilderness.

Boat Access Zone

This water zone provides access to various types of recreational watercraft, including motorboats. This zone may occur on surface waters above (or overlying) designated, submerged marine wilderness.

² The preferred alternative map contained within the Final Plan erroneously depicted the trail segment between the main park road and Lard Can Chickee as a seasonal backcountry trail. This segment of trail will continue to be managed as a paddling only (nonmotorized) trail as in the no-action alternative and as was described in the draft General Management Plan. These changes reflect the decisions reached by the National Park Service based on comments received and analysis conducted in the draft General Management Plan.

Pole/Troll/Idle Zone

This water zone protects sensitive shallow marine areas while allowing watercraft propelled by paddles, poles, trolling motors, and combustion engines operating at idle speed when there is sufficient water depth. This zone occurs in areas of the bay with variable water depths that can occasionally accommodate combustion engine motors operating at idle speeds. This zone occurs on surface waters above (or overlying) designated submerged marine wilderness.

Pole/Troll Zone

This water zone protects vulnerable shallow marine areas while allowing watercraft propelled by paddles, poles, or trolling motors. This zone may occur on surface waters above (or overlying) designated submerged marine wilderness.

Backcountry (Nonmotorized) Zone

This is the wildest zone, providing opportunities for tranquil, nonmotorized wilderness experiences on land and water. This zone may occur in designated wilderness (land) or above (overlying) submerged marine wilderness.

Special Protection Zone

This land or water zone protects key sensitive wildlife areas or areas serving as long-term ecological benchmarks for research. They are managed to protect the physical structure of habitats and ecological processes. This zone may occur in designated wilderness (land) or above (overlying) submerged marine wilderness.

EAST EVERGLADES ADDITION WILDERNESS STUDY

As part of the general management planning process, a wilderness study was conducted for the 109,600-acre East Everglades Addition. A study was needed because the Wilderness Act of 1964, Secretarial Order 2920, and NPS *Management Policies 2006* require the National Park Service to study roadless and undeveloped areas within the national park system, including new areas or expanded boundaries, to determine whether they should be designated as wilderness. The wilderness study evaluated these lands for possible recommendation to Congress for inclusion in the national wilderness preservation system.

The first step in the wilderness study was to evaluate the eligibility of lands within the East Everglades Addition for wilderness designation. The wilderness eligibility assessment was initially prepared in 2006, and then amended in 2015 based on continued internal staff analysis of existing conditions and wilderness characteristics, along with public comment received on the draft plan. The final wilderness study was then completed. Of the 109,600 acres in the East Everglades Addition, the final wilderness study determined that approximately 85,300 acres were eligible for wilderness designation, and about 24,300 acres were determined to be ineligible because of long-term nonconforming uses (e.g., an area historically used for commercial airboating) or the presence of

infrastructure (e.g., improved roads and/or structures expected to be in place for many years to support priority park management needs).

Using the best available information about wilderness character, the overall vision for each action alternative, public comments, and practical considerations, a range of possibilities for proposed wilderness was developed in the wilderness study and included in the GMP alternatives. Under the selected action (NPS preferred alternative), all of the eligible acreage, approximately 78% of the total acreage of the East Everglades Addition, will be proposed for wilderness or potential wilderness designation (see attachment 3). These lands will be managed as wilderness until such time as Congress specifically decides whether to include them in a formal wilderness designation. Lands identified as potential wilderness will be managed as wilderness to the extent that existing nonconforming conditions allow.

More specifically, as noted earlier in the “Area-Specific Management Actions” section, approximately 42,200 acres of the East Everglades Addition will be proposed by the National Park Service for wilderness designation. This acreage is generally described as the majority of lands south of Grossman’s Ridge and west of SW 237th Avenue. About 43,100 acres will be proposed as potential wilderness—an area that has wilderness characteristics but temporary nonconforming conditions or uses. These nonconforming conditions and uses primarily consist of private airboat use, lands still in private ownership, and widespread land management and monitoring activities related to ecosystem restoration efforts and projects to restore disturbed sites. The majority of these lands are north of Grossman’s Ridge and east of SW 237th Avenue, including the north-south corridor owned by Florida Power & Light Company, and lands where private airboat use (but not lands for airboat concessions, which were determined ineligible as wilderness) will likely continue beyond the life of the Final Plan.

The potential wilderness area is one of the most critical locations in the interagency effort to restore the Everglades ecosystem, which will require a substantial amount of research, monitoring, use of mechanized equipment, motorized vehicle access, and other activities normally prohibited under the Wilderness Act. Ultimately, these activities will restore wilderness character, natural habitats, and resource conditions not only in this area, but throughout the East Everglades, and will benefit other areas of the park as well. Although it will likely take many years, the potential wilderness eventually will be converted to designated wilderness after the nonconforming uses end, private lands comes into federal ownership, restoration efforts are successful, and wilderness character is sufficiently improved.

The National Park Service anticipates forwarding this wilderness proposal to the Secretary of the Interior, who then will be responsible for reviewing the proposal and either approving or revising it before forwarding it on to the president, who then will formally transmit a wilderness recommendation to Congress for action.

MITIGATION (MEASURES TO AVOID OR MINIMIZE ENVIRONMENTAL HARM)

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 evaluates and implements 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 and the quality of the visitor experience, a consistent set of mitigation measures will be applied to actions proposed in the plan, especially for construction-related projects. The National Park Service will prepare appropriate environmental compliance (i.e., that required by the National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA), the Endangered Species Act (ESA) and other relevant legislation) for these future actions if they are not sufficiently covered under the Environmental Impact Statement (EIS). As part of the environmental compliance, the National Park Service will avoid, minimize, and mitigate adverse impacts when practicable. The implementation of a compliance monitoring program will be within the parameters of NEPA and NHPA compliance documents, US Army Corps of Engineers section 404 permits, etc. The compliance monitoring program will oversee these mitigation measures and will include reporting requirements.

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

NATURAL RESOURCES

General

The park's resources, including air, water, soils, vegetation, and wildlife, will 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 will be managed according to NPS policies.

Whenever possible, new facilities will 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 will identify areas to be avoided and monitor activities.

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

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

Visitors will be informed of the importance of protecting the park's natural resources and leaving them undisturbed for the enjoyment of future generations.

Air Quality

Standard dust abatement measures will be applied, if necessary, and could include watering sprinkling or otherwise stabilizing soils, covering haul trucks, employing speed limits on unpaved roads, minimizing vegetation clearing, and revegetating after construction.

Soils

New facilities will be built on soils suitable for development. Soil erosion will 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 is completed, construction areas will be revegetated with native plants in a timely manner.

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

A portion of the Gulf Coast Visitor Center site includes an area previously used as a landfill site. The landfill site comprises approximately 1 acre (based solely on visual and shovel observation) and will require additional site analysis during future site redevelopment. All proposed activities that occur in or adjacent to the old landfill and a 200-foot buffer, which may affect the integrity of any environmental protection measures at the site, are regulated by the Florida Department of Environmental Protection and require meetings with them to discuss the proposed improvements and the potential impacts to the landfill.

Water Resources

Everglades National Park, as it implements projects identified in the GMP, will comply with and provide reference to all applicable state and federal water quality laws, regulations, and policies including those administered by the Florida Department of Environmental Protection. The State of Florida has promulgated and U.S. EPA has approved numeric nutrient criteria (NNC) for the park's surface waters, estuaries, and coastal waters to protect the ecosystem from anthropogenic sources of nutrients from agriculture and urban runoff. The NNC will support these Class III waters as defined under the Clean Water Act to meet their designated use and their designation as Outstanding Florida Waters by maintaining their health and well-balanced flora and fauna. Through ongoing water quality and quantity monitoring, the NPS is committed to ensuring that future implementation-level planning efforts within the context of the GMP are compliant with the NNC and all State of Florida, Florida Department of Environmental Protection regulations and policies regarding water resources.

To prevent water pollution during construction, erosion control measures will be used, discharges to water bodies will be minimized, and construction equipment will be regularly inspected for leaks of petroleum and other chemicals.

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

Caution will 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 will 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 will 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 National Park Service spill prevention and pollution control program for hazardous materials will 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; (2) limitation of refueling and other hazardous activities to upland/nonsensitive sites.

Wetlands

Wetlands will be avoided if possible, and protection measures will be applied during construction. Wetlands will be delineated by qualified NPS staff or certified wetland specialists and clearly marked before construction work. Construction activities will be performed in a cautious manner to prevent damage caused by equipment, erosion, siltation, etc. If it is determined that wetlands will be adversely impacted by construction or other activities, wetland losses will have to be compensated and appropriate compliance documentation, such as a wetlands statement of findings, will be required.

Vegetation

Areas used by visitors (e.g., areas near trails) will be monitored for signs of native vegetation disturbance. Public education, revegetation of disturbed areas with native plants, erosion control measures, and barriers will be used to control potential impacts on plants from trail erosion or social trailing.

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

As appropriate, revegetation plans will 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, will be used to the greatest extent possible. To maintain genetic integrity, native plants that grow in the project area or the region will be used in restoration efforts whenever possible. Use of invasive nonnative species or genetic materials will be considered only where deemed necessary to maintain a cultural landscape or to prevent severe resource damage. This use must be approved by the NPS resource management staff. Restoration activities will be instituted immediately after construction is completed. Monitoring will occur to ensure that revegetation is successful, plantings are maintained, and unsuccessful plant materials are replaced.

Invasive Nonnative Species

Special attention will be devoted to preventing the spread of invasive nonnative plants. Standard measures will 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 invasive nonnative plants before construction, treat nonnative plants or nonnative infested topsoil before construction (e.g., topsoil segregation, storage, herbicide treatment), and revegetate with appropriate native species. Under special circumstances, the use of noninvasive, nonindigenous species (e.g., sterile hybrids) may be considered.

Wildlife

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

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

Measures will be taken to reduce the potential for wildlife to have access to human food. Wildlife-proof garbage containers will be required at sites such as visitor centers, picnic areas, trails, and interpretive waysides. Signs will continue to educate visitors about the need to refrain from feeding wildlife.

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

Special Status Species

Conservation measures will occur during normal operations as well as before, during, and after construction to avoid or minimize long-term, immediate impacts on special status species where they are identified in the national park. These measures will vary by specific project and the affected area of the park. Many of the measures listed above for vegetation and wildlife will also benefit special status species by helping to preserve habitat. Conservation measures specific to special status species will include the following actions:

- Surveys will be conducted for special status species, including rare, threatened, and endangered species, before deciding to take any action that might cause harm. In consultation with the US Fish and Wildlife Service, National Marine Fisheries Service, and Florida Fish and Wildlife Conservation Commission, appropriate measures will be taken to protect any sensitive species whether identified through surveys or presumed to occur.
 - Breeding or nesting areas for threatened and endangered species will be protected from human disturbance.
 - New facilities and management actions will be positioned and designed to avoid adverse effects on rare, threatened, and endangered species. If avoidance of adverse effects on rare, threatened, and endangered species is infeasible, appropriate conservation measures will be taken in consultation with the appropriate resource agencies.
 - Restoration or monitoring plans will be developed as warranted. Data analyses and plans should include methods for evaluating impacts to species from plan implementation activities and identify performance standards. Given the GMP's focus on improved management and protection of marine and coastal shallow-water areas, an example could be the development of an aquatic habitat suitability assessment to evaluate changes to fish and wildlife species over time from plan implementation. Plans should include methods for implementation, performance standards, monitoring criteria, and adaptive management techniques.
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- Measures will be taken to reduce the adverse effects of invasive nonnative plants and wildlife on rare, threatened, and endangered species.

Sea Turtles and Smalltooth Sawfish. For all in-water construction projects, the supervisor shall comply with the following protected species conditions for these species:

- The construction supervisor shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.
- The project manager shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.
- Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service Protected Resources Division (NMFS/PRD), St. Petersburg, Florida.
- All vessels associated with the construction project shall operate at idle speed-no-wake speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a 4-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channel/access routes) whenever possible.
- If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-foot radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.
- Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the NMFS/PRD (727.824.5312) and the local authorized sea turtle stranding / rescue organization.
- Any special construction conditions required of a specific project outside these general conditions, if applicable, will be addressed in the primary consultation.

Other mitigation measures will be implemented for these species, as identified through consultation with the NMFS/PRD.

- The park will reduce the likelihood of injury or mortality resulting from hook-and-line capture or entanglement in the park through prominently displaying educational signs providing information about hook-and-line captures of sea turtles and smalltooth sawfish, and through placing monofilament recycling bins at public boat ramps, mooring sites such as the Flamingo Marina, and other locations frequently used by park anglers. The park will continue to include the NMFS/PRD in the development and maintenance of any educational materials provided to park visitors regarding listed marine species. The March 12, 2015, Biological Opinion SER-2014-14671 provides more detail about procedures (appendix J).

Additionally, all in-water projects will comply with the project design criteria identified by NMFS/PRD in Biological Opinion SER-2014-14671. The nature of the in-water activities involved in a proposed project will dictate which of the project design criteria will be applicable to future

projects covered by the Biological Opinion. A list of each of the activities that are covered and the required project design criteria necessary to complete the action are described below.

All projects and activities shall meet the following conditions:

- No work shall be authorized that may have direct or indirect adverse effects on the essential features of loggerhead sea turtle critical habitat (e.g., block the migratory pathway of sea turtles).
- For projects in waters accessible to sea turtles and smalltooth sawfish, follow the National Marine Fisheries Service Sea Turtle and Smalltooth Sawfish Construction Conditions, dated March 23, 2006. Under these guidelines, all construction personnel shall watch for the presence of ESA-listed species and construction activities will cease if sea turtles or smalltooth sawfish are observed in the area.
- Turbidity barriers shall be used to minimize the effects of turbidity during in-water construction.
- To the extent possible, new or rehabilitated facilities will be sited to avoid sensitive wildlife habitats, including feeding and resting areas, major travel corridors, nesting areas, and other sensitive habitats. Specifically, projects must be designed to minimize impacts to seagrasses (i.e., no more than 10 acres of impact per structure).
- Construction activities will be timed to avoid sensitive periods such as nesting or spawning seasons. Ongoing visitor use and NPS operational activities could be restricted if their potential level of damage or disturbance warranted doing so.
- Breeding or nesting areas for threatened and endangered species will be protected from human disturbance.
- All vessels associated with construction projects shall operate at idle speeds, no-wake speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a 4-foot clearance to the bottom.
- Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to NMFS/PRD at 727.824.5312 and the local sea turtle stranding / rescue organization.

Installation, maintenance, and removal of aids to navigation, chickees, mooring pilings, boardwalks, tie-up docks and other minor pile-supported structures must meet the following project design criteria:

- Piles are limited to wood piles not greater than 14 inches in diameter or smaller.
- New overwater structures do not exceed 500 ft² in size.
- No impacts to red mangroves are authorized.

Boat ramps must meet the following project design criteria:

- Repair and replacement of existing boat ramps within the park are limited to the same size and location as the existing boat ramp. No impacts to red mangroves are authorized.

The park shall coordinate with NMFS/PRD to develop and maintain educational materials provided to park visitors as part of their park pass. These materials shall, at a minimum, include the following

information to boaters and anglers regarding how to handle incidental captures of listed species by hook and line:

- handling procedures for listed marine species incidentally captured
- reporting requirements and contact information for the sea turtle and smalltooth sawfish hotlines
- requirements for anglers to have line-cutting equipment and a dehooking instrument available during fishing
- instructions for hook-and-line captures, which must be reported to the Everglades National Park Creel Survey and the Sea Turtle Stranding and Salvage Network or National Sawfish Encounter Database

Educational and outreach materials must meet the following project design criteria:

- Educational signs must be posted providing procedures to address potential hook-and-line captures of sea turtles and smalltooth sawfish. These signs must be posted in high traffic areas wherever park visitors enter the water to fish (e.g., marinas, boat ramps, popular shore fishing locations). The park will work with NMFS/PRD on content approval for posted signs. The park may supplement the signs with additional relevant information.
- Develop a means to encourage park visitors to photograph hook-and-line captures of protected species if photos can be taken safely without further harming the animal.

SOUNDSCAPE

Standard noise abatement measures will be followed during any construction. Standard noise abatement measures will include the following: 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 will be positioned 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 will be used to route people away from sensitive natural and cultural resources while still permitting access to important viewpoints.
- Facilities will be designed, sited, and constructed to avoid or minimize visual intrusion into the natural environment or landscape.
- Vegetation screening will be provided, where appropriate.

CULTURAL RESOURCES

- All projects with the potential to affect cultural resources will 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 will 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 federally recognized American Indian tribes. In addition to adhering to the legal and policy requirements for cultural resources protection and preservation, NPS staff will also undertake the measures listed below to further protect park resources.
- All areas selected for construction (including any trail improvements) will be surveyed to ensure that cultural resources (i.e., archeological, historic, ethnographic, and cultural landscape resources) in the area of potential effects are adequately identified and protected by avoidance or, as appropriate, mitigation.
- Compliance with the Native American Graves Protection and Repatriation Act of 1990 will apply in the unlikely event that human remains believed to be American Indian are discovered during construction or other activities in the park. Prompt notification and consultation with the federally recognized tribes traditionally associated with the park will occur in accordance with the act. If such human remains are believed to be non-Indian, standard reporting procedures to the proper authorities will be followed, as will all applicable federal, state, and local laws.
- Archeological documentation will be handled in accordance with *The Secretary of the Interior's Standards for Archeology and Historic Preservation* (1983, as amended and annotated) and Director's Order 28A: *Archeology*.
- If during construction previously unknown archeological resources are discovered, all work in the immediate vicinity of the discovery will be halted until the resources can be identified and documented and, if the resources cannot be preserved in situ, an appropriate mitigation strategy will be developed in consultation with the state historic preservation officer, associated federally recognized American Indian tribes, and others, as appropriate.
- Ethnographic resources will be protected and mitigated by such means as identifying and maintaining access for recognized and associated groups to traditional, spiritual/ceremonial, resource gathering, and other activity areas. As practical, new developments will be screened from these areas and conflicting uses will be relocated or timed to minimize disruptions.
- Further background research, resource inventories, and National Register of Historic Places evaluation of historic properties will be carried out where management information is lacking. The surveys and research necessary to determine the eligibility of a site, structure, district, or landscape for listing in the national register are a prerequisite (under section 110 of the National Historic Preservation Act) for understanding the resource's significance, as well as the basis of informed future decision making regarding how the resource should be managed. The results of these efforts will be incorporated into site-specific planning and compliance documents.
- The park will strive to protect and preserve historic properties in accordance with all applicable laws, policies, and guidelines. However, instances may occur in which the park cannot reasonably preserve a historic structure because of safety concerns or other conflicting and/or compelling management considerations (e.g., ecosystem restoration requirements). In those instances, the decision to remove or allow a structure to "molder" (benign neglect) will only be carried out following review and approval by the regional director and consultation conducted in accordance with NHPA section 106. NPS staff will consult as appropriate with the Florida state historic preservation officer, federally recognized tribes, and other interested parties. As part of the mitigation, adversely affected

properties will be documented and recorded as appropriate to the standards of the Historic American Buildings Survey (HABS) / Historic American Engineering Record (HAER) / Historic American Landscape Survey (HALS) program.

- All historic structures and cultural landscapes maintained as park assets will follow an approved preservation prescription identified in a historic structure report or cultural landscape report that follows *The Secretary of Interior's Standards for the Treatment of Historic Properties*.
- All treatment of historic structures and cultural landscapes will be handled in accordance with *The Secretary of the Interior's Standards for the Treatment of Historic Properties* including the standards and guidelines for the treatment of cultural landscapes. Properties that have been determined to be national historic landmarks will be protected to the highest standards and every effort will be made to avoid, not just mitigate, any adverse effect.
- Visitors will be educated on the importance of protecting the park's historic properties and leaving these undisturbed for the enjoyment of future visitors.

VISITOR SAFETY AND EXPERIENCE

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

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

SOCIOECONOMIC ENVIRONMENT

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

CLIMATE CHANGE

New facilities development in coastal areas:

- All alternatives in the plan propose some development in coastal areas, including at Flamingo and the Gulf Coast District in Everglades City. All development in the park will adhere to the following guidelines during actual development within the park. Development will consider the potential impacts that could result from changes in intensity or frequency of tropical storm events (including hurricanes), sea level change, variations in precipitation (droughts or more extreme rain events), and changes in groundwater levels, etc. When the National Park Service considers development within the park, managers must consider changes to sea level, hardened construction, and mobility of structures in addition to best construction practices.
- For the purposes of the plan, park managers should consider, review, and include the following items when proceeding with design and/or construction:

- **Temporary Structures.** This construction type is temporary in nature and is not designed to resist high intensity storm events, which makes them susceptible to failure and could further damage park resources in a high intensity storm event. This type of construction could be used for short durations, if needed, to meet a temporary park management need, but this construction method is generally not recommended in the park.
- **Mobile Structures.** Mobile construction must be easily moved within a short time period to a predetermined site of relative safety. Over the life of the structure, it must remain code compliant. It must be clear that this structure is meant to be moved during an expected hazard event. Intact mobile structures, such as trailers and recreational vehicles, fit this description. Although this type of construction is permissible to meet park needs as defined in the plan, it will not withstand a high intensity storm surge event (as defined by code and park). All such mobile structures will be removed to a predetermined safe location.
- **Elevated/Hardened/Relocatable Structures.** These structures shall be designed and sited to withstand hurricane-force winds (category 4) and storm surges, but could be relocated to a new site at such time as coastal conditions warrant (long-term climate change, for example).
- **Structures.** This construction type is considered permanent and nonmovable. At a minimum, this construction type will meet nationally recognized codes.
- Building codes provide guidance on how to appropriately deal with wind, flooding, and storm surge, but current codes do not provide guidance on sea level change. Any new construction at the park will be required to appropriately consider the finished floor elevation of structures using the formula below, which takes into account variables such as predicted sea level change and the wave effect due to sea level change.
- $\text{Finished Floor Elevation} = \text{Base Flood Elevation} + \text{Predicted Sea Level Change} + \text{Wave Effect Due to Sea Level Change} + \text{Insurance Risk Adjustment} + \text{Floor Structure Height}.$
- The finished floor elevation will change depending on the flood hazard zone in which the structure was built, as delineated on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps. As of this writing, and based on a structure with a 50-year life, the finished floor height will be 12.2 feet above sea level in the A-zone and 16.1 feet above sea level in the V-zone.
- **Flood Hazard Zone.** A and V zones are delineated on FEMA Flood Insurance Rate Maps.
- **Base Flood Elevation.** One hundred-year flood elevation determined by FEMA for the area of construction. Obtained from FEMA Flood Insurance Rate Maps delineating the base flood elevation(s) in the area of construction.
- **Predicted Sea Level Change.** Current predictive information regarding anticipated sea level change for the life of the structure (for most permanent structures this is 50 years, the sum of the maximum 40-year life for life-cycle cost calculations as prescribed by the Energy Independence and Security Act of 2007, plus 10 years assumed to account for the process of planning, funding acquisition, design, and construction). This is obtained by researching authoritative sources providing sea level change data local to the project site.
- **Wave Effect Due to Sea Level Change** (applies to V-zone construction). The additional height of storm surge-induced waves due to the predicted sea level change. Obtain guidance from the FEMA Flood Insurance Study for the area including the structure to obtain the relationship between still water depth and wave height in storm surge wave-prone areas (V-zones).
- **Insurance Risk Adjustment** (applies to V-zone construction). A height adjustment to the proposed finished floor elevation in V-zone construction designed to equalize the financial risk to that of construction in an A-zone. Obtain actuarially based flood

- insurance premiums from FEMA's flood insurance program for construction in flood-prone areas (A and V-zones). Adjust the V-zone finished floor height upwards, until the insurance premium for that construction is equal to or lower than the insurance premium for flood insurance program compliant construction in the A-zone.
- **Floor Structure Height** (applies to V-zone construction). The difference between the finished floor height and the height of the FEMA-mandated element prescribed to be at or above the base flood. Obtain current guidance from FEMA's *Coastal Construction Manual* regarding building element's relationship to design flood level. For instance, the current FEMA *Coastal Construction Manual* requires the bottom of the lowest horizontal structural member to be at or above flood level in V-zones.
 - **Examples.** The finished floor elevation would change depending on the flood hazard zone in which the structure was built. As of the publication of this document and based on a structure with a 50-year life, the finished floor height would be 12.2 feet above sea level in the A-zone and 16.1 feet above sea level in the V-zone. The actual finished floor elevation would be subject to changes in current code, current scientific data, and best practices in construction.

OTHER ALTERNATIVES CONSIDERED

Other alternatives were considered during the planning process. The paragraphs below describe the concept and key features of these alternatives. More detailed information on these alternatives can be found in chapter 2 of the Final Plan.

ALTERNATIVE 1 (NO ACTION)

The no-action alternative (alternative 1), provides a baseline for evaluating changes and impacts of the three action alternatives. This baseline is characterized primarily by conditions at the park as of December 2009, with continuation of current management practices into the future (i.e., business as usual). This alternative assumes implementation of some approved and funded facility improvements via the concessioner and other improvements via the National Park Service, as well as currently unfunded improvements at Flamingo Visitor Center such as rebuilding visitor lodging and rehabilitating the visitor center as outlined in the *Flamingo Commercial Services Plan / Environmental Assessment*. It is anticipated that the most financially feasible and viable approach to restore many facilities and services at Flamingo will be defined and implemented via the Flamingo concessions prospectus process that was open for proposals by concession companies in summer 2015.

Otherwise, the built environment would remain at its current level. Existing facilities at the park headquarters area, Royal Palm, Long Pine Key, Key Largo, Shark Valley, and Gulf Coast would be maintained and continue to serve operational needs and visitors—in some cases at less than desired levels.

Management activities would continue to conserve natural resources and processes while accommodating a range of visitor uses and experiences.

Visitors would continue to have access to a wide variety of land- and water-based opportunities and programs, including concessioner trips at Gulf Coast, Shark Valley, and Flamingo, plus self-guided opportunities and guided trips throughout the park.

ALTERNATIVE 2

Alternative 2 would strive to maintain and enhance visitor opportunities and protect natural systems while preserving many traditional routes and visitor access. This concept is represented in management zoning by the boat access zone in Florida Bay and a large (56,000 acres) frontcountry zone in the East Everglades Addition. This alternative would rely more on boater education and enhanced ranger patrols to provide some measure of increased protection for seagrass beds, banks, and other submerged marine wilderness values. Like the NPS preferred alternative, alternative 2 would continue commercial airboat tours. A modest portion of the East Everglades Addition (the southern portion, where airboat use would not occur) would be proposed for wilderness designation.

ALTERNATIVE 3

Alternative 3 was created during an early phase of alternatives development and closely resembled what is now the preferred alternative with some elements of alternative 4. It was eliminated from detailed consideration following the development of the preferred alternative due to these similarities to reduce redundancy in the analysis and public reviews. Eliminating alternative three resulted in four more distinct alternatives that still maintained a broad range of ideas for public consideration and analysis. See the “Alternatives and Actions Considered but Dismissed from Detailed Evaluation” section in chapter 2 of the *Final General Management Plan / East Everglades Wilderness Study / Environmental Impact Statement* for more information.

ALTERNATIVE 4

Alternative 4 would provide a high level of support for protecting natural systems while improving opportunities for certain types of visitor activities. This concept is represented in management zoning by establishing pole/troll zones over shallow areas of Florida Bay and managing 21,600 acres in the northwest portion of the East Everglades Addition as the frontcountry zone (where private airboating by eligible individuals would continue). Commercial airboat tours in the park would be discontinued in this alternative. Nearly all of the East Everglades Addition would be proposed for eventual wilderness designation.

BASIS FOR DECISION

In analyzing the alternatives in the Final Plan, a variety of factors or goals were considered in deciding which alternative to implement, including the following:

1. allows natural conditions and processes to be maintained and restored
2. preserves cultural resources (archeological and ethnographic resources, historic structures, and cultural landscapes)
3. provides an appropriate range of visitor opportunities
4. establishes/maintains wilderness character
5. improves operational efficiency
6. provides other advantages to Everglades National Park, partners, and/or stakeholders

The preferred alternative in the Final Plan was determined to best meet all of these goals. The alternative best meets the purpose and need for the plan/wilderness study and has been determined

to be the environmentally preferable alternative. The preferred alternative will provide a high level of protection of natural and cultural resources, maintain an environment that supports a diversity and variety of individual choices, and integrate resource protection with an appropriate range of visitor use. Extensive NPS analysis found that the preferred alternative will have beneficial effects on many park resources, such as the vegetation and submerged wilderness in Florida Bay and other marine waters, and the wilderness character of East Everglades Addition, while enhancing opportunities for future visitors throughout the park.

The decision is also based on comments made during public meetings or official comments submitted by the public or partner agencies on the draft plan / wilderness study. No significant concerns were raised that could not be addressed by minor modifications to the final plan / wilderness study. Most of these comments offered suggestions on ways to improve or strengthen the NPS preferred alternative. Where appropriate, recommended changes were made to the preferred alternative to provide more clarity, expand on proposed management strategies, or provide factual corrections, and are reflected in the Final Plan.

Therefore, the preferred alternative has been selected by the regional director to be implemented.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

Under the National Environmental Protection Act, the National Park Service is required to identify the environmentally preferable alternative in its environmental documents. The environmentally preferable alternative is the alternative that best promotes the national environmental policy expressed in NEPA section 101[b]. In other terms, it is that alternative developed and analyzed during the NEPA process that “causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources” (43 CFR 46.30).

NEPA 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 national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choices;
5. achieve a balance between population and resource use that 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.

After the environmental consequences of the alternatives were analyzed, each alternative was evaluated as to how well the six goals listed above would be met. The following discussion highlights how each alternative would meet or not meet these goals.

Two of the goals listed above did not make a difference in determining the environmentally preferable alternative. Goal number 1 is satisfied by each of the alternatives because Everglades is a national park and as the steward of these units, the National Park Service would continue to fulfill its mandate to protect the resources of the park and provide opportunities for enjoyment of those resources for future generations. Goal 6 addresses the quality of renewable resources and recycling of depletable resources, which are not applicable in the scope of a general management plan. However, conservation and resource recycling is encouraged throughout the National Park Service and, therefore, would be implemented under any alternative.

Alternative 1 (no action) represents a continuation of the present course of park management. Under alternative 1, park staff would continue to respond to resource impacts, visitor demands, and facility maintenance needs as they arise according to existing management direction. Without an updated general management plan, alternative A would lack the range of diversity and individual choices found in the other alternatives. It also does not provide as much resource protection and active, beneficial management as the other alternatives. Thus, the no-action alternative would not meet goal 3, goal 4, and goal 5 to the same extent as the other alternatives.

The NPS preferred alternative would support a high level of both science-based resource restoration activities and visitor experience opportunities, thus fully meeting goals 3, 4, and 5. A comprehensive cultural resource management program would be implemented that would help address goal 4 objectives for preserving important historic and cultural resources. Implementing user capacity and the mandatory boater education and permit program under this alternative would also contribute to meeting goals 2, 3, and 5. Establishing the pole/troll and pole/troll idle zones in Florida Bay and a large area of proposed wilderness in the East Everglades Addition would help meet goals 2, 3, and 4.

Alternative 2 would provide a high level of visitor experience opportunities, fully meeting goals 2 and 5. Implementing user capacity and boater education programs under this alternative would contribute to meeting goals 2, 3, and 5. This alternative would continue protection of undeveloped areas of the park, but not to the extent of alternatives 4 and the preferred, so goal 4 would be only partially met.

Alternative 4 would support the highest level of resource protection and active, beneficial management of any of the alternatives. Alternative 4 would provide the highest comparative level of protection for Florida Bay (based on the extent of pole/troll zones) and the most proposed and potential wilderness in the East Everglades Addition, so it would best meet goal 4. Implementing user capacity and boater education programs under this alternative would contribute to meeting goals 2, 3, and 5. However, the resource protection elements of this alternative would come at some cost to visitor opportunities and flexibility, so goals 3 and 5 would only be partially met.

After evaluation of all the alternatives in the General Management Plan, the environmentally preferable alternative was determined to be the NPS preferred alternative.

PUBLIC AND AGENCY INVOLVEMENT

The Final Plan is the culmination of years of work and input by the public and NPS staff. Consultation with various agencies and entities and with the public was vitally important throughout the planning process. Primary avenues to participate in development of the plan were public meetings, focus group / stakeholder meetings, meetings with other agencies, briefings with elected officials, responses to newsletters, and comments submitted over e-mail or the Internet.

PUBLIC MEETINGS, INTERNET, AND NEWSLETTERS

Public meetings, Internet (GMP webpage link on the park's website) updates, and newsletters were used to keep the public informed and involved in the planning process.

Public Scoping

The public involvement process began with a "Notice of Intent" to prepare an environmental impact statement for the General Management Plan; this notice was published in the *Federal Register* on October 25, 2002.

The first newsletter, mailed to about 5,000 addresses in January 2003, introduced the planning effort and invited the public to participate. Public open house events were held in January and February of that year in Everglades City, Naples, Key Largo, Miami, Key Colony Beach, and Homestead. Three additional meetings were held to meet with area agencies, and several more meetings with various stakeholder groups were held.

More than 1,800 comments were submitted in this phase of public input. These comments were summarized in Newsletter 2, published in September 2003.

Alternatives Development and the Wilderness Study

To assist in the development of alternatives, and to better understand the comments and concerns received during public scoping, 12 additional meetings with user groups and organizations were held in March and April 2004.

On August 7, 2006, a "Notice of Intent" was published in the *Federal Register* to explain that a wilderness study for the East Everglades Addition would be combined with the GMP effort. A third newsletter on this topic was mailed in July 2006, and a public wilderness scoping meeting was held on August 9, 2006, with about 80 participants. In August 2006, correspondence requesting input on the wilderness study was also mailed to federal, state, and local agencies and elected officials, commercial airboat operators in the East Everglades Addition, and federally recognized American Indian tribes culturally affiliated with the Everglades. More than 100 comments were received at the public meeting and through mail and e-mail correspondence.

In October 2006, following the extensive damage to Flamingo from hurricanes Katrina and Wilma, the redevelopment vision for Flamingo became the focus of a separate but related effort to the General Management Plan. The *Flamingo Commercial Services Plan / Environmental Assessment* was approved in July 2008 and a more detailed Master Plan was finalized in 2010. Information from these plans and subsequent guidance from the director's office was incorporated by reference into the Environmental Impact Statement.

In May 2007, a preliminary management alternatives newsletter was distributed, seeking public comment. Seven public meetings were held throughout south Florida to receive verbal and written comments on the preliminary alternatives. More than 1,500 people attended the public meetings, and the planning team received more than 1,000 comments from park users and interested citizens.

A fifth newsletter describing revised alternatives for the marine waters (Florida Bay and the Gulf Coast) was distributed in March 2009. Seven public meetings and 16 stakeholder meetings were held in south Florida in March and April 2009 on the revised alternatives. The seven public meetings were attended by about 630 people, and about 250 people attended the 16 stakeholder (focus group) meetings. In addition, the planning team received 600 written comments from individuals and organizations.

A new public involvement effort took place in January to February 2012 to seek additional public input on the best way to reassess the needed improvements at the Gulf Coast site. As part of this process, a public meeting was held on January 19, 2012.

A summary of the public comments received during these public comment periods and public meetings can be found in chapter 6 of the Final Plan.

RELEASE OF THE DRAFT GENERAL MANAGEMENT PLAN / EAST EVERGLADES WILDERNESS STUDY / ENVIRONMENTAL IMPACT STATEMENT

On February 27, 2013, Everglades National Park released the *Draft General Management Plan / East Everglades Wilderness Study / Environmental Impact Statement* for public review and comment. The draft document was available locally at the park and on the NPS planning website (<http://parkplanning.nps.gov/ever>). The public was invited to submit comments on the plan through May 12, 2013.

Meetings to review the draft document and receive input were held with the public and focus groups in south Florida in March and April 2013. The nine public meetings were attended by over 1,000 people. These public meetings were held in Homestead (March 19, 2013); Islamorada (March 20, 2013); Everglades City (March 21, 2013); Dania Beach (April 8, 2013); Naples (April 9, 2013); Key Largo (April 10, 2013); Miami (April 11, 2013); Marathon (April 16, 2013); and Key West (April 17, 2013). More than 20 additional stakeholder meetings, including with the South Florida congressional delegation, were also held during the comment period and into early 2014. Additionally, 10 site visits, some with stakeholders, to key areas of the park took place later in 2013 to better understand resource conditions and identify optimal strategies for resource protection and visitor experience improvements.

During the public comment period, 15,762 pieces of correspondence were entered into the NPS Planning, Environment, and Public Comment system, either through direct entry by commenter or uploading hard copy letters, electronic correspondence, or transcripts from public meetings. Over 30 local, state, and federal agencies and nongovernmental organizations submitted comments. In addition to the general public and businesses, members of over 60 organizations also submitted comments.

Please refer to appendix I of the Final Plan for a detailed summary of substantive comments received during the public comment period.

CONSULTATION WITH OTHER AGENCIES

The National Park Service has engaged in both formal and informal consultation efforts throughout the general management planning and wilderness study process. A summary of these consultations is included below and key consultation letters are included in appendix G of the Final Plan.

US Fish and Wildlife Service

During preparation of the plan, NPS staff coordinated informally with the US Fish and Wildlife Service. A letter was sent to the US Fish and Wildlife Service–South Florida Ecological Services Office (SFESO) in 2002 informing them of the initiation of the general management plan process and requesting current information on threatened and endangered species that may occur in the park.

In October 2003, the US Fish and Wildlife Service – SFESO became a cooperating agency for the preparation of the management plan / environmental impact statement. The US Fish and Wildlife Service – SFESO participated in several workshops with the NPS GMP team in 2003 and 2007. The National Park Service sent a second letter to the US Fish and Wildlife Service – SFESO in 2007 in conjunction with release of GMP Newsletter 4. The list of threatened and endangered species (see table 10) was compiled using lists and information obtained from the US Fish and Wildlife Service. On several occasions between May and August 2010, park staff met with a US Fish and Wildlife Service representative to discuss the NPS preferred alternative and the resulting preliminary threatened and endangered species determinations under section 7 of the Endangered Species Act.

In subsequent communications, park staff sought advice from the US Fish and Wildlife Service regarding how to fulfill NPS responsibilities for complying with section 7 of the Endangered Species Act. On August 18, 2010, the two agencies discussed whether or not a separate biological assessment should be prepared in association with the General Management Plan. On August 19, 2010, the US Fish and Wildlife Service – SFESO representative confirmed that a separate biological assessment would not be required; instead the environmental impact statement would serve that purpose for the overall direction provided in the plan.

The US Fish and Wildlife Service also reviewed preliminary drafts of the General Management Plan through November 2012 and tentatively affirmed the section 7 determinations in the draft plan.

A copy of the *Draft General Management Plan / East Everglades Wilderness Study / Environmental Impact Statement* was sent to the US Fish and Wildlife Service requesting initiation of informal consultation under section 7 of the Endangered Species Act. The US Fish and Wildlife Service submitted a letter on June 24, 2013, containing its comments regarding the plan. All comments and concerns have been addressed with NPS responses in appendix I and document modifications.

On June 2, 2014, the National Park Service submitted a letter to the US Fish and Wildlife Service summarizing discussions on the comments and working to conclude informal consultation. On August 5, 2014, the US Fish and Wildlife Service provided a letter in response indicating its support for the preferred alternative and concurrence with the determinations of effects for threatened and endangered species.

In addition, the National Park Service has committed to consult on future actions conducted under the framework described in the general management plan to ensure that such actions are not likely to adversely affect threatened or endangered species.

If any elements of the plan are modified in the future, consultation with the US Fish and Wildlife Service should be reinitiated.

National Marine Fisheries Service

Communication with the National Marine Fisheries Service began during project scoping with a November 2002 letter announcing that public and agency scoping meetings would begin in January 2003. On March 5, 2013, the National Park Service sent a copy of the *Draft General Management Plan / East Everglades Wilderness Study / Environmental Impact Statement*, in place of the biological assessment, to the National Marine Fisheries Service for review related to essential fish habitat and threatened and endangered species under their jurisdiction, including five species of sea turtles and the smalltooth sawfish. The National Marine Fisheries Service was not required to respond because of the determination of “no adverse effect” for the marine species under their jurisdiction. However, in subsequent communication, NPS staff sought advice from the National Marine Fisheries Service regarding how to fulfill NPS responsibilities for complying with section 7 of the Endangered Species Act.

On May 30, 2014, the National Park Service submitted a preliminary final version of the General Management Plan to the National Marine Fisheries Service, at which time formal consultation was initiated. On March 12, 2015, the National Park Service received a Programmatic Biological Opinion from the National Marine Fisheries Service that included section 7 determination on the species that were listed at the time of the *Draft General Management Plan / East Everglades Wilderness Study / Environmental Impact Statement*. The cover letter is included in appendix G and the entire NMFS Programmatic Biological Opinion can be found on the park’s planning website (<http://parkplanning.nps.gov/EVER>). As is described in the March 12, 2015, Programmatic Biological Opinion, the National Park Service and the National Marine Fisheries Service will continue to consult on both a project-specific and programmatic basis going forward.

Florida Department of Environmental Protection

Coastal Zone Management. Consistent with the Coastal Zone Management Act, in developing the General Management Plan the National Park Service identified desired conditions and strategies that support NPS- and park-specific laws and policies. Most specific to the plan, enhanced protection of marine resources, including submerged marine wilderness, plants, and wildlife, through management zoning and other programs and actions have been identified in the plan. Examples include pole/troll zones, the mandatory boater education and permit program, and additional marine navigation aids. The authority for designating management zones in national parks is outlined in chapter 2, in the “Management Zones” section.

The National Park Service initiated the process of consultation with the State of Florida in November 2002 to ensure that the General Management Plan was consistent with the Coastal Zone Management Act. The Florida Department of Environmental Protection provided initial input on the General Management Plan in March 2003, provided comments on the scoping notice for the East Everglades Wilderness Study (2006) and on the Revised Preliminary Alternatives for Marine Waters, Everglades National Park General Management Plan (2009). A copy of the *Draft General Management Plan / East Everglades Wilderness Study / Environmental Impact Statement* was sent to the Florida State Clearinghouse for a coordinated review. The State of Florida submitted a letter on May 15, 2013, stating that the plan was consistent with the Florida Coastal Management Program, provided that specific comments were addressed in the final plan.

Additionally, following receipt of the Florida Fish and Wildlife Conservation Commission (FFWCC) comments on the *Draft General Management Plan / East Everglades Wilderness Study / Environmental Impact Statement*, the National Park Service continued to refine the preferred alternative to respond

to substantive comments from the public and other stakeholders, including local, state, and federal agencies. Following revisions to the preferred alternative, the National Park Service held a conference call/briefing with the commission on April 25, 2014. The outcome was that FFWCC managers indicated their support for the changes to the preferred alternative to address comments that they and their constituents had raised.

All comments and concerns have been addressed with NPS responses in appendix I and document modifications.

State Historic Preservation Office (Section 106 Consultation)

Section 106 of the National Historic Preservation Act requires that agencies with direct or indirect jurisdiction over historic properties consider the effect of any undertaking on properties listed in or eligible for listing in the National Register of Historic Places. To meet the requirements of the Advisory Council on Historic Preservation's regulations (36 CFR 800), the National Park Service sent letters to the Florida state historic preservation officer and the Advisory Council on Historic Preservation on November 20, 2002, inviting them to participate in the planning process. All the newsletters from this planning process were sent to both offices with a request for comments. Staff of the Florida Division of Historical Resources (state historic preservation office) participated in a 2003 agency scoping meeting and has received plan newsletters during the course of the planning process.

A copy of the *Draft General Management Plan / East Everglades Wilderness Study / Environmental Impact Statement* was provided to the Florida Division of Historical Resources and the Advisory Council on Historic Preservation with a request for comments. On April 23, 2013, the Florida Division of Historical Resources replied that they have no comments and that the plan is consistent with laws and policies. Park staff will continue to consult with the state historic preservation officer under requirements of NHPA section 106 as undertakings identified in the General Management Plan advance toward more detailed design development and implementation stages.

Consultation with American Indian Tribes

The need for government-to-government consultation between the National Park Service and federally recognized tribal governments stems from the historic power of Congress to make treaties with tribes as sovereign nations. Consultations with federally recognized tribes are required by various federal laws, executive orders, regulations, and policies. They are needed, for example, to comply with section 106 of the National Historic Preservation Act. Implementing regulations of the Council on Environmental Quality for the National Environmental Policy Act also require tribal consultation.

Letters were sent to the following federally recognized American Indian groups in November 2002, January 2003, and March 2013 to inform them of the general management plan process and to invite their participation: the Miccosukee Tribe of Indians of Florida, the Seminole Tribe of Florida, and the Seminole Nation of Oklahoma. These federally recognized American Indian groups were also invited to comment on the draft plan in March 2013. Government-to-government consultation meetings related to the General Management Plan were held with representatives of the Miccosukee Tribe of Indians of Florida in March 2003, August 2006, and March 2007. A meeting with the Council of the Original Miccosukee Seminole Nation Aboriginal Peoples (formerly known as the Independent Traditional Seminole Nation of Florida) was held in February 2003. The Council of the

Original Miccosukee Simanolee Nation Aboriginal People was also invited to comment on the draft plan in March 2013.

Park staff will continue to consult, on a government-to-government basis, with federally recognized tribes and under requirements of the NHPA section 106 as undertakings identified in the General Management Plan advance toward more detailed design development and implementation stages.

ATTACHMENT 1. DETERMINATION OF NONIMPAIRMENT FOR PARK RESOURCES AND VALUES

A determination of nonimpairment is made for each of the resource impact topics carried forward and analyzed in chapter 5 of the Final Plan for the NPS preferred alternative. The description of park significance in chapter 1 was used as a basis for determining if a resource is:

- necessary to fulfill specific purposes identified in the establishing legislation of the national park
- key to the natural or cultural integrity of the national park or to opportunities for enjoyment of the national park
- identified in the national park's general management plan or other relevant NPS planning documents as being of significance

A determination of impairment is not required for the impact topics of visitor use and experience, wilderness character, social and economic environment, and NPS operations because impairment findings relate back to park resources and values. These impact topics are not generally considered to be resources or values according to the Organic Act, and cannot be impaired the same way that an action can impair resources and values.

The impact topics described below (and whether they are key to the natural or cultural integrity of the park) are:

- **Hydrologic Resources.** Hydrologic resources are key to the natural and cultural integrity of the park.
- **Landscape and Soils.** Landscape and soils are key to the natural and cultural integrity of the park.
- **Vegetation.** Vegetation is key to the natural and cultural integrity of the park.
- **Wildlife, Fisheries, and Essential Fish Habitat.** Wildlife, fisheries, and essential fish habitat are key to the natural and cultural integrity of the park.
- **Federal Special Status Species.** Federal special status species are key to the natural and cultural integrity of the park.
- **Natural Soundscape.** The natural soundscape is key to the natural and cultural integrity of the park.
- **Archeological Resources.** Archeological resources are key to the natural and cultural integrity of the park.
- **Historic Structures, Sites, and Districts.** Historic structures, sites, and districts are key to the natural and cultural integrity of the park.
- **Cultural Landscapes.** Cultural landscapes are key to the natural and cultural integrity of the park.
- **Ethnographic Resources.** Ethnographic resources are key to the natural and cultural integrity of the park.
- **Museum Collections.** Museum collections are key to the natural and cultural integrity of the park.

NATURAL RESOURCES TOPICS

Hydrologic Resources

Under the preferred alternative, adverse impacts on hydrologic resources may occur in several locations where temporary disturbance of vegetation and soils for construction may result in short-term, small increases in runoff to nearby water bodies. Some of these areas may include upgraded facilities and two new shade structures at Shark Valley; upgraded NPS facilities at Key Largo; development of visitor turnouts along Tamiami Trail; a new administrative/operations center outside the East Everglades Addition; additional carry-in boat access to Florida Bay along the main park road and along US 1 near Long Sound; eight new chickees in the Gulf Coast / Ten Thousand Islands area; three new chickees in Florida Bay; a new canoe/kayak ramp and launch at Gulf Coast; and a replacement visitor center.

Beneficial impacts will be realized in the long term by (1) restoration of more natural water flow under the south portion of Anhinga Trail by installation of culverts or a bridge, (2) establishment of poll/troll and pole/troll/idle zones in Florida Bay, and (3) the mandatory boater education and permit program. The Anhinga Trail improvements would reestablish more natural surface water flow. Establishment of substantial pole/troll and pole/troll/idle zones and the mandatory boater education and permit program would result in fewer boat groundings and fewer incursions into the shallowest areas, with fewer disturbances to bottom sediments from motorboat propellers; this would decrease turbidity in Florida Bay.

Overall, implementation of the preferred alternative will result in long-term, localized, and beneficial (e.g., decreased turbidity) impacts in Florida Bay, and slight short-term, localized, adverse impacts (e.g., turbidity, sedimentation) during construction projects. Because the small adverse impacts will be localized in nature and will be mitigated where possible, there will be no impairment of hydrologic resources at Everglades National Park.

Landscape and Soils

The preferred alternative would result in some short-term impact of small consequence, such as continued soil disturbance by visitor use (e.g., compaction) in certain areas and from some facility upgrades that would occur within the developed or disturbed footprint, as well as from new and upgraded facilities as described previously in the “Hydrologic Resources” section. Visitor use will be mitigated through seasonal or year-round closures, as appropriate. Best management practices during construction will limit construction-related impacts on soils. Whenever possible, soils that are disturbed will be revegetated for a long-term reduction of soil erosion. The preferred alternative will not impair landscape and soils because adverse impacts will be slight and highly localized.

Vegetation

Under the preferred alternative, there will be short- and long-term impacts of small consequence on vegetation from construction-related facility upgrades and from construction of new and expanded facilities. Direct removal of vegetation because of construction activities for infrastructure and facilities will cause adverse impacts. In all instances, construction best management practices, such as revegetation of disturbed areas, would offset much of the disturbance, leading to overall minimal

impacts. Beneficial impacts will also be realized through new programs and changes in motorboat access in Florida Bay, including implementation of pole/troll and pole/troll/idle zones. Additionally, certain islands or areas within the East Everglades Addition will be closed to visitor use seasonally or year-round for natural resource or cultural resource protection, to reduce vegetation impacts (e.g., from airboat landings or foot traffic). Formal seagrass restoration efforts in Florida Bay and infilling of Chekika borrow pits will restore vegetation cover, and the mandatory boater education and permit program will aid visitor understanding of how to avoid future damage to seagrass beds. Because adverse impacts on vegetation will be largely short term, localized, and slight in nature, there will be no impairment of vegetation at the park.

Wildlife, Fisheries, and Essential Fish Habitat

Under the preferred alternative, there will be both adverse and beneficial impacts on wildlife, fisheries, and fish habitat. Most of the potential disturbance to wildlife, fish, and fish habitat will be associated with construction activities and impacts on habitat for short durations. Because revegetation will replace this habitat, these impacts will be of little consequence in the long term in most locations. Additional recreational opportunities in some areas of the park will cause some impacts, but alternative transportation could be offered to reduce visitor traffic and the closure of certain areas to visitor use seasonally or year-round would further protect wildlife, fish, and their habitat. The establishment of pole/troll and pole/troll/idle zones will have beneficial impacts on wildlife, fish, and fish habitat by reducing disturbance from boating activity. Increased refuge for fish from reduced fishing pressure, more informed/responsible behavior by boaters, and recovery and restoration of damaged seagrass beds will similarly benefit fish and fish habitat. Because adverse impacts on wildlife, fish, and fish habitat will be largely short term, localized, and slight in nature, there will be no impairment of this resource at the park.

Federal Special Status Species

For all federal special status species (except sea turtles and the smalltooth sawfish as discussed below), and for all designated critical habitat, the preferred alternative will constitute a *may affect, not likely to adversely affect* finding under section 7 of the Endangered Species Act. Consultation with the appropriate federal or state agency will occur before any possible disturbance to listed species or their habitat.

Slight adverse impacts will continue to affect some special status species and their habitat, largely due to continued visitor activities both on land and water, and short term and localized facility and infrastructure construction. Through consultation with the US Fish and Wildlife Service and the National Marine Fisheries Service, the National Park Service determined that sea turtles and the smalltooth sawfish would continue to be adversely affected by human activities (primarily motorboating and recreational fishing). These impacts would constitute a *may affect, likely to adversely affect* finding under section 7 of the Endangered Species Act. Based on formal consultation with the National Marine Fisheries Service, the National Park Service determined that the preferred alternative was not likely to jeopardize the continued existence of sea turtles or smalltooth sawfish.

Most special status species will experience beneficial impacts as a result of the preferred alternative. These beneficial impacts will result from a number of mitigation and protection measures, including constraining private airboat use to designated routes within the frontcountry zone, implementation of pole/troll and pole/troll/idle zones, a boater safety and resource protection plan, improved visitor education, and seagrass restoration, among others. Based on consultation with the US Fish and

Wildlife Service and the National Marine Fisheries Service, as well as its own assessment of anticipated impacts to special status species and their habitats, the National Park Service has determined that there will be no impairment to special status species at the park as a result of the NPS preferred alternative because adverse impacts on these species will be largely short term, localized, and slight in nature.

Natural Soundscape

The natural soundscape of the park is an important resource that affects the scenery, wildlife, and the overall visitor experience in the park. It is especially important to the solitude and wilderness experience that is integral to much of the park. Under the preferred alternative, natural sounds are expected to continue to predominate and noise levels across the park remain relatively similar to present-day levels. Human-generated noise in the park under the preferred alternative is expected to continue to stem primarily from vehicular traffic, aircraft overflights, and administrative activities involving airboat and/or aircraft use. These activities will have long-term, adverse impacts on the natural soundscape in localized areas, primarily in developed areas, campgrounds, popular boating (and airboating) areas, and areas near major roads. However, adverse impacts on the soundscape are not expected to substantially increase. The preferred alternative will also result in long-term, beneficial impacts to the natural soundscape. Some areas of the East Everglades Addition will have reduced noise from motorboats or airboats because of changes related to management zoning. In Florida Bay the establishment of substantial pole/troll and pole/troll/idle zones, where operating gasoline-powered motorboat engines will not be permitted, and a 300-foot-wide idle speed, no-wake area along the northern shoreline of the bay will result in long-term, beneficial impacts on the natural soundscape. Additionally, if alternative transportation to various park areas is successfully implemented, noise levels could be locally decreased by the reduction in numbers of individual passenger vehicles. Because the preferred alternative will not result in any substantial increases in adverse impacts to the natural soundscape of the park, and any adverse impacts will be localized near primary visitor areas, the preferred alternative will not result in impairment to the natural soundscape.

CULTURAL RESOURCE TOPICS

Archeological Resources

Preserving the integrity of archeological resources is a fundamental objective of park resource managers. Actions identified under the preferred alternative will result in long-term beneficial impacts on the park's prehistoric and historic archeological resources. Among these measures are the implementation of a comprehensive cultural resource management program, closure of some tree islands to protect sensitive archeological resources, and implementation of a site stewardship program.

Projects identified in the preferred alternative such as restoration of disturbed areas in the East Everglades Addition and Pine Island (e.g., restoring natural topography and removing nonhistoric structures and invasive nonnative vegetation) could adversely affect archeological resources because of ground disturbance. However, these projects will be designed and implemented to avoid or mitigate any associated impacts; previously disturbed areas will be selected as feasible for new construction, and archeological surveys and/or monitoring will precede and accompany any ground-disturbing activity. In addition, continued ranger patrols and visitor education about the significance and fragility of archeological resources and how visitors can reduce impacts would discourage

inadvertent disturbance and vandalism. Because there will be no unmitigated adverse impacts on archeological resources, the preferred alternative will not result in impairment.

Historic Structures, Sites, and Districts

Preserving the integrity of historic resources is a fundamental objective of park resource managers. Actions identified under the preferred alternative will result in long-term beneficial impacts on the park's historic resources. Among these measures are the implementation of a comprehensive cultural resource management program to assist the ongoing inventory, documentation, and historic preservation planning of historic sites, structures, and districts. Surveys and research necessary to effectively understand and evaluate resource significance will provide the basis for informed resource management planning and decision making.

Under the preferred alternative, historic structures will be stabilized, preserved, and rehabilitated in accordance with *The Secretary of the Interior's Standards for the Treatment of Historic Properties*. The park will continue to rehabilitate and adaptively use selected historic buildings, such as those associated with Nike Missile Base Site (HM-69), for administrative and other purposes. Actions requiring the necessary repair and replacement of historic fabric associated with preservation and rehabilitation projects will be sensitively undertaken in accordance with the Secretary's Standards. Because all undertakings will be carried out in a manner anticipated to have no or minimal adverse impacts, the National Park Service has determined that there will be no impairment of historic structures, sites, and districts under the preferred alternative.

Cultural Landscapes

Preserving the integrity of cultural landscapes is a fundamental objective of park resource managers. Actions identified under the preferred alternative will result in long-term beneficial impacts on the park's cultural landscapes. Among these measures are the implementation of a comprehensive cultural resource management program to assist efforts to identify, document, and evaluate cultural landscapes in accordance with national register eligibility criteria. Surveys and research necessary to effectively understand and evaluate the significance of cultural landscapes will provide the basis for informed resource management planning and decision making.

Under the preferred alternative, the appropriate treatment of cultural landscapes (e.g., preservation, rehabilitation) will be carried out in accordance with *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*. Although potential alterations or additions to cultural landscapes could occur, sensitive design measures would be undertaken to ensure that any impacts to contributing landscape elements are avoided or appropriately mitigated. New construction would be concealed or screened by vegetation plantings, and other mitigation measures would be used to minimize the impacts of actions that could affect the scale and visual relationships among landscape features. Because all undertakings will be carried out in accordance with the Secretary's Standards and in a manner having no or minimal adverse impacts, the National Park Service has determined that there will be no impairment of cultural landscapes under the preferred alternative.

Ethnographic Resources

Preserving the integrity of ethnographic resources is a fundamental objective of park resource managers. Actions identified under the preferred alternative will result in long-term beneficial impacts on park ethnographic resources. As part of the measures implementing a comprehensive cultural resource management program are increased investigations to identify and evaluate ethnographic resources having traditional or cultural significance to the park's federally recognized tribes and/or other groups such as those associated with the Gladesmen culture. The park would seek to strengthen its partnership with federally recognized tribes to cooperatively integrate education programs, and these efforts could further understanding and protection of ethnographic resources. Significant sites would be regularly monitored to assess resource conditions and inform treatment strategies. Some tree islands could be closed to public use to protect sensitive ethnographic sites, and a site stewardship program would be implemented to provide further protection. The locations of sensitive ethnographic resources would not be publicly disclosed in efforts to respect tribal preservation and privacy concerns.

Projects identified in the preferred alternative, such as restoration of disturbed areas and construction of primitive campsites on East Everglades tree islands could adversely affect ethnographic resources because of ground disturbance. However, projects will be designed and implemented to avoid or mitigate any associated impacts; previously disturbed areas will be selected as feasible for new construction, and ethnographic surveys and/or monitoring will precede and accompany any ground-disturbing activity. Park staff will continue to consult with federally recognized tribes to ensure ethnographic resources are appropriately managed and that resources are not inadvertently disturbed by park-related activities and proposed development. Continued ranger patrols and visitor education about the importance of ethnographic resources and how visitors can reduce impacts would help discourage inadvertent disturbance and vandalism. Because there will be no unmitigated adverse impacts on ethnographic resources, the National Park Service has determined that the preferred alternative will not result in impairment.

Museum Collections

Under the preferred alternative, the South Florida Collections Management Center will be relocated to a new facility in the Pine Island District. Under a partnership agreement, the new center will continue to store collection items from Everglades, Biscayne, and Dry Tortugas National Parks; Big Cypress National Preserve; and De Soto National Memorial. In accordance with NPS museum collections policies and guidelines and recommendations of the *South Florida Parks Collection Management Plan* (2007), the new facility will be equipped with state-of-the-art environmental control and protection systems to properly store and protect the collections. The facility will be adequately staffed and will include sufficient space to accommodate projected future acquisitions, staff work space, and controlled areas for researchers and the public to access the collections. Part of the facility could be used as space for interpretive exhibits and/or a staging area for public tours of the Nike Missile Base site. Relocation of the South Florida Collections Management Center to a new facility in the Pine Island District and ongoing operations meeting approved NPS curatorial standards will have long-term, beneficial impacts and will not result in impairment of museum collections.

SUMMARY

In conclusion, as guided by this analysis, good science, and scholarship, advice from subject matter experts and others who have relevant knowledge and experience, and the results of public involvement activities, it is the judgment of the National Park Service that there will be no impairment of Everglades National Park resources and values from implementation of the selected action.

ATTACHMENT 2. FLOODPLAIN STATEMENT OF FINDINGS

STATEMENT OF FINDINGS

FOR

EXECUTIVE ORDER 11988 FLOODPLAIN MANAGEMENT

EXISTING AND PROPOSED SITE DEVELOPMENT

EVERGLADES NATIONAL PARK
FLORIDA

Recommended: 
Superintendent, Everglades National Park

4/24/15
Date

Concurred: 
Chief, Water Resources Division

4/28/15
Date

Approved: 
Director, Southeast Region

10/23/15
Date

The above signatures certify that this document is technically adequate and consistent with NPS policy.

INTRODUCTION

Executive Order 11988, "Floodplain Management" requires the National Park Service and other federal agencies to evaluate the likely impacts of actions in floodplains. The objectives of the executive order is to avoid to the extent possible the long-term and short-term adverse impacts associated with occupancy, modification, or destruction of floodplains and to avoid indirect support of development and new construction in such areas wherever there is a practicable alternative.

The NPS guidelines for compliance with Executive Order 11988 allow construction within a 100-year floodplain for recreational facilities such as parking and trails. The guidelines also state that in coastal areas structures can only be placed in the coastal high hazard area when the structures or facilities are for management and legislated use of the affected area. The guidelines go on to state that "their placement and construction shall be at locations least likely to be affected by the actions of coastal storms and flooding." The purpose of this Statement of Findings is to present the rationale for the location of a proposed action (building a new visitor center at the NPS Gulf Coast administrative site) in the floodplain, the continued use of existing park infrastructure and development within the floodplain, and to document the anticipated effects on floodplain values.

PROPOSED ACTION

The National Park Service would propose to implement the NPS preferred alternative of the *Final General Management Plan / East Everglades Wilderness Study / Environmental Impact Statement*. The most significant action in the preferred alternative with respect to new development is the construction of the Marjory Stoneman Douglas Visitor Center and related improvements at the Gulf Coast administrative site. Construction of the visitor center was included in park legislation.

The proposed action would be to replace the existing 45-year-old wood-frame visitor center. The new building would incorporate innovative design to achieve net zero energy use. It would be a concrete modular design, prefabricated at a facility 131 miles from the park and hauled to the site. Earlier environmental analysis documented that there are no wetlands in the Gulf Coast site (NPS 1990). Because no wetlands would be impacted by this project, this Statement of Findings is for floodplains only.

The proposed action has been designed to meet the needs of the increasing numbers of visitors to the Gulf Coast area of the park, to enhance the quality of their experiences there, and to ensure safety and improved efficiency of management and operations. Previously, the National Park Service prepared and made available for public review the *Gulf Coast Development Concept Plan and Environmental Assessment* (DCP) that documented the alternatives considered for development at the Gulf Coast administrative site of Everglades National Park (NPS 1990). The *Gulf Coast Development Concept Plan and Environmental Assessment* assessed alternative planning strategies and potential environmental impacts of implementation. The current project proposal is slightly different from that described in the 1990 *Gulf Coast Development Concept Plan and Environmental Assessment*, so this Statement of Findings supersedes the 1990 version.

No alternatives have been carried forward other than construction. Moving administrative functions off-site was considered and rejected because it would not be as cost-effective or efficient operationally as the proposed project. The existing facilities were constructed on the same site in Everglades City where President Truman dedicated the park in 1947. In 1989, Congress approved

construction of the Marjory Stoneman Douglas Visitor Center at this site (see appendix A), and Ms. Douglas attended the dedication there. This establishes extraordinary context to interpret and educate visitors, as well as carrying out the directive of Congress.

FLOODPLAINS WITHIN THE EVERGLADES GULF COAST PROJECT AREA

The Everglades Gulf Coast administrative site is a 20-acre site within Everglades City and outside Everglades National Park boundary proper. The site was purchased by the National Park Service in 1959 for development of the park administrative and visitor use facilities. The administrative site is composed primarily of filled land built up in the past 30 years by dredging sand into a swampy area previously used as a city dump.

The floodplains of Everglades City, in Collier County, Florida, were mapped in 1986 by the Federal Emergency Management Agency. About 25% of Everglades City is within the “coastal flood with velocity hazard (wave action)” zone (coastal high hazard area); the rest of the city is within the base elevation for 100-year flooding.

The Gulf Coast site is on an area that has been filled to approximately 5 feet above mean sea level and is completely within the coastal high hazard area zone VE, with a base flood elevation of 13 feet. The coastal high hazard area is an area where high winds, high waves, and tidal flooding can be expected. At the Gulf Coast site, the combined storm surge and wave elevation is 13 feet above mean sea level. In recent years, several storms (hurricanes or tropical depressions) have required personnel and equipment evacuation and closure of the facilities. These storms, coupled with high tides and westerly winds, have caused minor flooding at the Gulf Coast site. Most of the damage to the facilities at Gulf Coast has been wind induced.

The Proposal in Relation to Floodplains

The major Gulf Coast development actions required in the GMP preferred alternative are constructing a new visitor center and concession facility, improving the parking area, and building a new canoe/kayak ramp and launch. Approximately 8 acres of land would be used for the total site development and planted with turf grass as exists at the current site.

The planned structures and facilities are limited to those necessary to meet the minimum needs for visitor use projected for the next several years to provide a quality visitor experience while minimizing impacts on the park’s resources and site management. The planned construction actions would occur in areas of the site already impacted with development, therefore, not introducing significant new impacts on floodplain values.

The site, being totally within the coastal high hazard area, could potentially have floodwater elevations as deep as 13 feet. The design of new structures would incorporate methods for minimizing storm damage as contained in the National Flood Insurance Program’s Floodplain Management Criteria for Flood-Prone Areas (44 CFR section 60.3) and in accordance with local, county, or state requirements for flood-prone areas.

The proposed replacement of the existing visitor center at a new site within the coastal high hazard area would have floor elevations above the combined storm surge and wave height calculated for the

site. The space below the lowest floor would be free of obstructions to minimize impact on the structure by abnormally high tides and wind-driven water (storm surges).

Interpretation and natural resources management would emphasize perpetuation of floodplain and wetland values. The park staff would actively assist private landowners and federal, state, and local regulatory agencies in protecting wetlands that are outside the park boundary, but whose use may affect park resources. Moreover, wetlands and floodplains would be used for their educational, recreational, and scientific qualities through expanded interpretive programs and possibly research emphasis.

JUSTIFICATION FOR CONTINUED USE OF THE FLOODPLAIN

Most of Everglades National Park is in 100-year or 500-year floodplains. Park development and public use at the main developed areas including Headquarters/Pine Island, Shark Valley, Key Largo, Chekika, the Tamiami Trail Ranger Station, Flamingo, Gulf Coast, and along the main park road have been in place for many years.

Actions proposed in the NPS preferred alternative include the retention or replacement of existing visitor services and park operation facilities within floodplains, as well as restoration of previously impacted areas within floodplains as is the case in the East Everglades Addition and at the Tamiami Trail Ranger Station. The preferred alternative does not propose any new development outside previously developed areas in the floodplain. The justification for retaining these structures in the 100-year floodplain is as follows:

- The Gulf Coast site is the only land-based access to the park on the west coast of Florida, providing access for the public and park staff to Ten Thousand Islands, Wilderness Waterway, Gulf of Mexico, and Florida Bay. The facilities are historically and functionally dependent on their locations. Moving the entire administrative and visitor services site out of the floodplains would be cost-prohibitive and may not meet the will of Congress.
- Relocating existing facilities, infrastructure, and services at the main developed areas in the park may be infeasible and very costly, both financially and from a level and quality of service perspective.
- All existing infrastructure and development within the park is on disturbed ground. Moving and attempting to relocate existing visitor services and park operations facilities within or outside the park would likely result in adverse impacts and the loss of other natural resource values in the area.

SPECIFIC FLOOD RISKS

In recent years, several severe storms (hurricanes or tropical depressions) have required the evacuation of personnel and equipment and facility closures. These storms, coupled with high tides and westerly winds, have caused minor flooding at the Gulf Coast site and other developed areas in the park. As noted above, the Gulf Coast site has the potential for floodwater elevations as deep as 13 feet. Most of the damage to the facilities within the park has been wind induced. Ample notice of severe weather is provided by the National Weather Service and other agencies, making warning and evacuation a practical option for protection of human life.

There would be no additional storage facilities for fuels or toxic materials or museum collections in a floodplain proposed by the NPS preferred alternative.

MITIGATION

The situations that lead to storm-caused high water events, and the scope and duration of these events, are known by park staff, making warning and evacuation a practical option for protection of human life. Everglades National Park will continue to maintain an active hurricane evacuation plan. The plan details responsibilities of individual park employees for advanced preparedness measures at the onset of the hurricane season (June through October). These include removing or securing park property, records and utility systems during a hurricane warning; monitoring communications during a hurricane; and conducting rescue and salvage operations following a hurricane. The hurricane plan has proven effective in maintaining safety and reducing property damage during storms, and it will be reviewed annually and updated.

The design of new structures throughout the park would incorporate methods for minimizing storm damage as contained in the National Flood Insurance Program's Floodplain Management Criteria for Flood-Prone Areas (44 CFR section 60.3) and in accordance with local, county, or state requirements for flood-prone areas.

The proposed replacement of the existing Gulf Coast visitor center would have floor elevations above the combined storm surge and wave height calculated for the site. The space below the lowest floor would be free of obstructions to minimize impact on the structure by abnormally high tides and wind-driven water (storm surges). By elevating the structure in this way, natural floodplain functions and values would be preserved and adverse impacts would be minimized.

The new facility would be a concrete modular design entirely prefabricated at a facility 131 miles from the park. This process achieves a level of construction efficiency that is impossible using conventional methods. Advantages include a shorter construction period, superior quality control, reduced labor and transportation costs, and reduced construction site pollution and solid waste disposal.

As previously identified in the *Flamingo Commercial Services Plan Findings of No Significant Impact and Statement of Findings (2008)*, the overall development footprint of the Flamingo area would be considerably reduced from existing levels with the elevation of structures comprising most of the facilities to be rebuilt. Up to an additional 50 acres of floodplain (the former B and C campground loops and a majority of the former lodge and cottage site) would be restored.

To avoid potential pollution of bay waters by stormwater runoff contaminated by oil and other petroleum products, the developed area (especially the parking lot) would use techniques such as backsloping to allow percolation and filtration of runoff through the soils.

The environmental analysis contained in the *Everglades National Park General Management Plan / East Everglades Wilderness Study / Environmental Impact Statement* and this Statement of Findings constitute the environmental compliance necessary to implement the Gulf Coast development should the NPS preferred alternative be selected.

SUMMARY

The National Park Service has determined that implementing the NPS preferred alternative would not result in any additional disruption of floodplains. Risk to life from storms and high water can be mitigated. The National Park Service would allow the existing visitor center to be replaced, the parking area improved, and a new canoe/kayak ramp and launch in the current Gulf Coast administrative site because there are no reasonable alternative locations. Construction of the visitor center would replace an existing facility with a sustainable structure that meets National Flood Insurance Program standards. Visitors would be informed of changes caused by storm events through regular interpretation and local media.

The replacement, restoration, or development facilities and infrastructure within the park would not expand beyond currently disturbed areas. The design of new structures throughout the park would incorporate methods for minimizing storm damage as contained in the National Flood Insurance Program's Floodplain Management Criteria for Flood-Prone Areas (44 CFR section 60.3) and in accordance with local, county, or state requirements for flood-prone areas.

Therefore, the National Park Service finds that the proposed action would not have any additional adverse impacts on floodplains and their associated values.

STATEMENT OF FINDINGS REFERENCES

Executive Order 11988, "Floodplain Management" (May 28, 1980). Executive Order of the President of the United States.

National Park Service, 2006. *Management Policies 2006*. National Park Service, Washington, D.C.

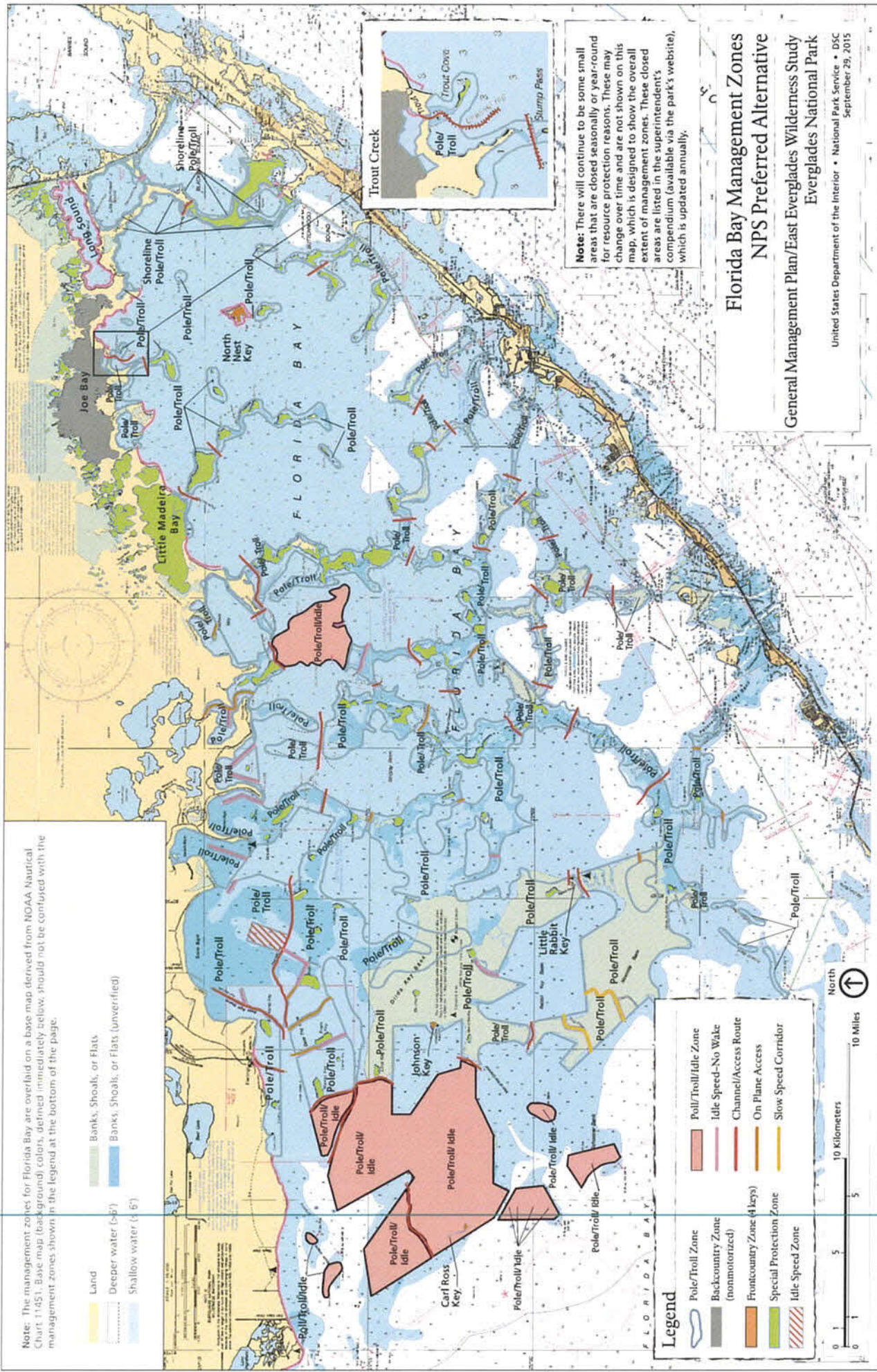
National Park Service, 2003. Director's Order 77-2: *Floodplain Management*. Washington Office, Washington, D.C.

National Park Service, 1990. *Gulf Coast Everglades National Park Development Concept Plan / Environmental Assessment*. Everglades National Park, Homestead, Florida.

ATTACHMENT 3. SELECTED ACTION MAPS

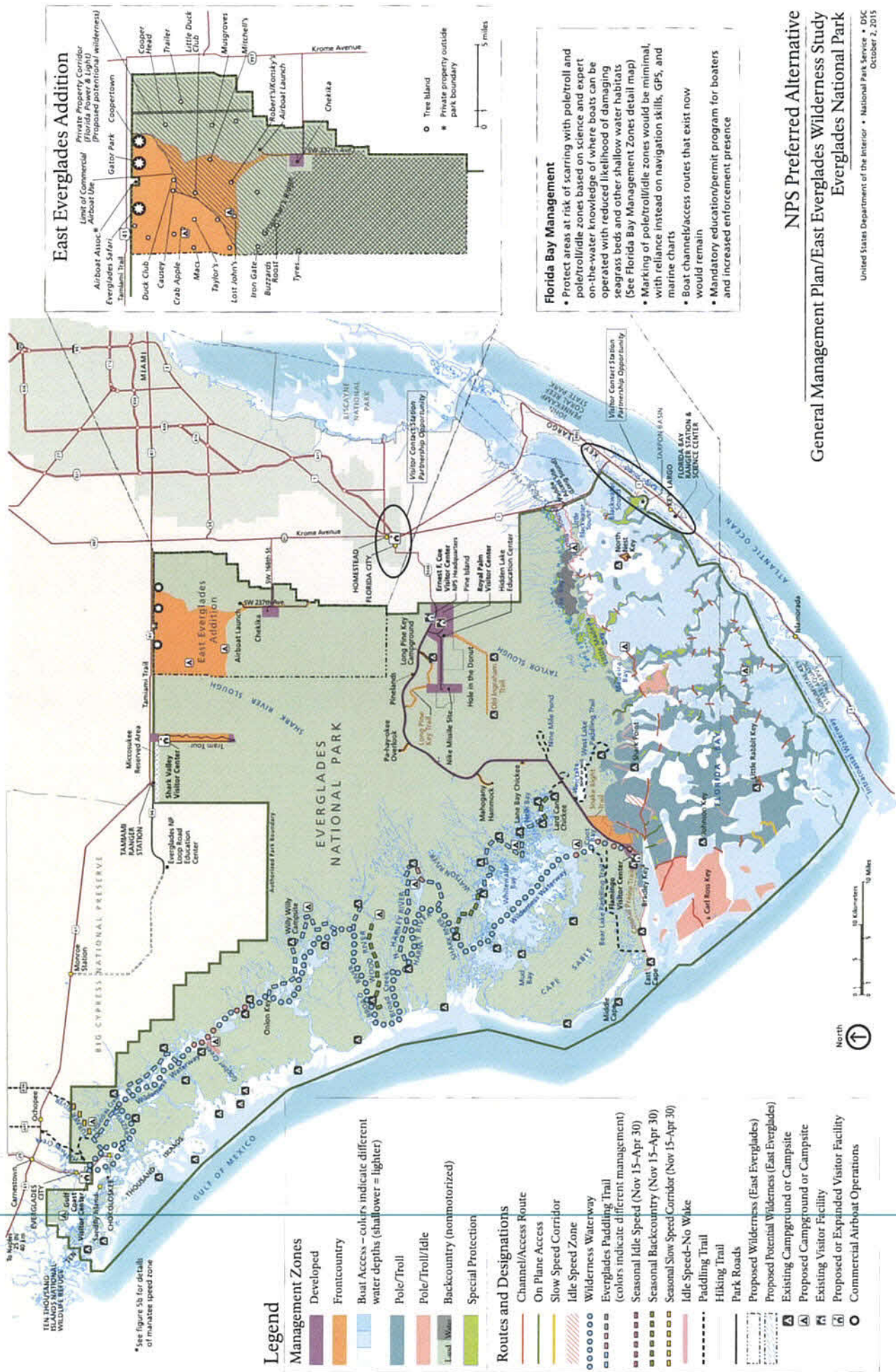
Note: The management zones for Florida Bay are overlaid on a base map derived from NOAA Nautical Chart 11451. Base map (background) colors, defined immediately below, should not be confused with the management zones shown in the legend at the bottom of the page.

- Land
- Deeper water (>5')
- Shallow water (<5')
- Banks, Shoals, or Flats
- Banks, Shoals, or Flats (unverified)



Florida Bay Management Zones NPS Preferred Alternative General Management Plan/East Everglades Wilderness Study Everglades National Park

United States Department of the Interior • National Park Service • DSC
September 29, 2015





East Everglades Zoning and Wilderness Proposal: Final Preferred Alternative

