

**National Park Service
U.S. Department of the Interior**

**Biscayne National Park
Florida**



General Management Plan / Environmental Impact Statement

Record of Decision

Recommended:

Date:

A handwritten signature in blue ink, appearing to read "Brian Carlstrom", written over a horizontal line.

A handwritten date "8-27-2015" in blue ink, written over a horizontal line.

Brian Carlstrom
Superintendent
Biscayne National Park

Approved:

Date:

A handwritten signature in black ink, appearing to read "Stan Austin", written over a horizontal line.

A handwritten date "8/31/15" in black ink, written over a horizontal line.

Stan Austin
Southeast Regional Director
National Park Service

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**UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE**

RECORD OF DECISION

**GENERAL MANAGEMENT PLAN /
ENVIRONMENTAL IMPACT STATEMENT**

Biscayne National Park

Florida

The Department of the Interior, National Park Service (NPS), has prepared this "Record of Decision" on the *Final General Management Plan / Environmental Impact Statement* for Biscayne 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 minimize environmental harm, a synopsis of other alternatives considered, the basis for the decision, a determination of non-impairment of park resources and values for the selected 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

Biscayne National Monument was established by the U.S. Congress in 1968 (Public Law 90-606), expanded in 1974, and expanded again and re-designated as Biscayne National Park in 1980 (Public Law 96-287). The park was established to preserve and protect for the education, inspiration, recreation, and enjoyment of present and future generations a rare combination of terrestrial, marine, and amphibious life in a tropical setting of great natural beauty. The park is situated along Florida's east coast southern tip and includes coral reefs, sandy shoals, undeveloped mangrove shoreline and 42 keys or islands that offer sanctuary to an abundant blend of plants and animals. The current authorized acreage for the park is 173,900 acres with 95% of this total area consisting of submerged land.

The last comprehensive planning effort for the park was the 1983 General Management Plan. Much has occurred since then – the population near the park has greatly increased and visitor use patterns, types and recreational interests have also changed. A new 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 park resources; how to provide quality visitor uses and experiences; how to manage visitor use; and what kinds of facilities, if any, to develop in/near the park.

- Ensure that this 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.

The *Final General Management Plan / Environmental Impact Statement* presents and analyzes eight alternatives for future management of the park. The alternatives, which are based on the park's purpose, significance, and special mandates, present different ways to manage resources and visitor use and improve facilities and infrastructure. The eight alternatives are the no-action alternative (continue current management), alternative 2 (emphasize the recreational use of the park), alternative 3 (allow all visitors a full range of visitor experiences throughout most of the park and includes a no-fishing marine reserve zone), alternative 4 (emphasize strong natural and cultural resource protection while providing a diversity of visitor experiences and includes a no-fishing marine reserve zone), alternative 5 (promotes the protection of natural resources and includes the largest marine reserve zone of the action alternatives), alternatives 6 and 7 (emphasize strong natural and cultural resource protection while providing a diversity of visitor experiences and include a special recreation zone), and alternative 8, a hybrid of previous plan alternatives that adopts the no-fishing marine reserve in alternative 4 and the other management zones described in alternative 6. Alternative 8 was identified as the NPS final preferred alternative in the *Final General Management Plan / Environmental Impact Statement*.

STATEMENT OF DECISION MADE (SELECTED ACTION)

Summary

For the purposes of this Record of Decision, Alternative 8 is the NPS selected alternative. The selected alternative will emphasize strong natural and cultural resource protection while providing a diversity of visitor experiences. Visitor opportunities in this alternative range from the challenges of exploring the natural environment alone to the convenience of built surroundings. A limited amount of resource impacts will be tolerated in high-use areas of the park. Some visitor activities will be restricted in certain areas to protect sensitive resources and allow wildlife a respite from human contact. Other areas, such as Legare Anchorage, will be reserved for limited types of visitor use. Elements of this alternative to protect park reefs will support the resiliency of the park reefs, potentially delaying the effects of global-scale stressors such as climate change, ocean acidification, and land-based sources of pollution.

Specific management zones detailing acceptable resource conditions, visitor experience and use levels, and appropriate activities and development will be applied to park lands and waters consistent with this concept. The selected action will also seek to enhance resource protection, protect cultural resources, and improve collaboration with local, state, and federal partners.

The required "wait period" before approval of the Record of Decision was initiated June 5, 2015, with the U.S. Environmental Protection Agency's *Federal Register* notification of the filing of the *Final General Management Plan / Environmental Impact Statement*. This Record of Decision is not the final agency action for those elements of the selected action that require promulgation of regulations to be effective. Promulgation of such regulations will constitute the final agency action for such elements of the selected action.

MANAGEMENT STRATEGIES OF SELECTED ACTION

Under alternative 8, the selected action, the park will be managed to strongly protect natural and cultural resources while providing a diversity of visitor experiences. Additional partnership agreements will be sought to expand the park's capacity both inside and beyond park boundaries at sites such as marinas and state and county parks in an effort to engage potential visitors. The park will continue to seek opportunities to enhance the sustainability of facilities parkwide.

Management Zones

The primary building blocks for a general management plan are the management zones. All zones were developed within the scope of the park's purpose, significance, mandates, and legislation.

Management zones prescribe a range of desired resource conditions and visitor experience for the park and include statements about the appropriate kinds and levels of management, use, and development in each zone. The management zones provide primary guidance for subsequent decision making in the park. The following ten management zones have been defined for the park: (1) visitor services / park administration zone; (2) dredged navigation channels zone; (3) slow speed (minimum wake) zone; (4) idle speed (no wake) zone; (5) noncombustion engine use zone; (6) sensitive underwater archeological zone; (7) multiuse zone (land and water); (8) nature observation zone; (9) sensitive resource zone; and (10) marine reserve zone. See chapter 2 of the *Final General Management Plan / Environmental Impact Statement* for more details on management zones, including desired resource conditions and visitor amenities.

Visitor Services/Park Administration Zone

This zone will include most facilities dedicated to visitor information/orientation and park management. This zone will receive a high level of visitor use. Only land areas are included in this zone.

Dredged Navigation Channels Zone

This zone will accommodate existing transportation routes for vessels in the Intracoastal Waterway, Black Point, Homestead Bayfront, and Turkey Point Channels. These areas currently receive high level of human use and activity. This zone will primarily be used for traveling through the park and/or gaining access to other park areas.

Slow Speed (Minimum Wake) Zone

This zone will enhance paddler and motorized boater safety, protect visitor-owned boats at Adams Key, protect the Florida manatee and its habitat, and protect sensitive park resource areas while allowing watercraft operating at minimum wake speed. This zone occurs in two areas. The first area is along the mainland coastline and contains shallow water depths in areas frequented by manatees, paddlers, and shallow-draft motorized vessels. The second area runs south of Adams Key to Porgy Key and includes Caesar Creek from markers 20 to 22, in order to protect the boats that are tied to Adams Key dock from wave action generated from boat wakes. This zone was developed in consultation with the Florida

Fish and Wildlife Conservation Commission (FWC) and will be consistent with the Florida Manatee Recovery Plan and the Dade County Manatee Protection Plan.

Idle Speed (No Wake) Zone

This zone will enhance boater and swimmer safety and protect sensitive park resource areas. Watercraft will operate at idle (no wake) speed. This zone is proposed for the waters along the northwestern coast of Elliott Key, which has shallow water depths with seagrass beds and receives occasional high visitor use.

Non-Combustion Engine Use Zone

This water zone protects vulnerable near-shore nursery areas and shallow water habitats. Watercraft propelled by push-pole or electric trolling motor with the outboard motor tilted up will operate in this zone. This zone allows visitors to safely immerse in nature as it will serve to prevent vessel groundings.

Sensitive Underwater Archeological Zone

This zone protects significant and vulnerable underwater cultural resources. Travel through the area in a vessel will be allowed; mooring, anchoring, and entering the water will not. The use of underwater viewing devices will not be allowed. Recreational hook-and-line fishing via trolling and drifting will be allowed. Commercial fishing and trapping will not be allowed.

Multiuze Zone (Land and Water)

This land or water zone includes areas capable of supporting a diverse range of resource-based recreation and education. This zone will apply to most of the park's land and water acreage. A multitude of resource-based recreation and education that is consistent with park purpose and significant will continue, including boating, scuba diving, snorkeling, swimming, fishing (in accordance with the park's Fishery Management Plan), nature observation, hiking, picnicking, camping and visiting shipwrecks.

Nature Observation Zone

This zone allows visitors to access areas of the park that provide opportunities to experience natural sounds, tranquility, solitude, and closeness to nature. The preservation of natural and cultural resources, restoration of degraded and impacted resources, and continuation of natural processes will be the dominant goals of this zone. Appropriate visitor activities will include nature observation and fishing. Only land areas are included in this zone.

Sensitive Resource Zone

This zone protects exceptional and sensitive natural or cultural resources that are sensitive to or easily damaged by human use, including waterbird colonies and certain State-listed plants. The water areas of this zone are consistent with the best available science and State management plans for wading bird colonies. Access to this zone will be by research permit only.

Marine Reserve Zone

The marine reserve zone will provide a high level of protection to the reef while allowing visitors who snorkel, dive, and ride a glass-bottom boat to experience a natural, healthy coral reef with larger and more numerous fish. The marine reserve zone will allow visitors the opportunity to participate in reef activities such as boating, snorkeling, scuba diving, underwater photography, and nature viewing. Recreational and commercial fishing will be prohibited in the zone, with the exception of spearfishing for lionfish and other exotic invasive fish as determined by the park. The coral reef protected in this zone will contribute toward the U.S. Coral Reef Task Force goal of including 20% of the reefs in Florida in marine reserves.

Area Specific Management Strategies

The following represent area-specific management strategies for Alternative 8, the selected action.

The Mainland

Convoy Point will be in the visitor services/park administration zone and remain the park's primary administrative and visitor services area on the mainland. If additional administrative space were needed, some functions would be expanded on-site while an alternate location in the local community would be studied for moving other functions and facilities.

A boardwalk and/or viewing platform could be built near Convoy Point to interpret the dwarf mangrove and marsh ecosystems. Site-specific environmental planning would be conducted before constructing the boardwalk. The visitor center boardwalk could be improved to enhance visitor safety and access. The jetties and associated trails at Convoy Point and Black Point could also be improved for enhanced visitor safety and access. The mainland area between Convoy Point and Black Point County Park would be zoned multiuse, totaling 2,756 acres of land, and the remainder would be a nature observation zone, totaling 4,747 acres of land.

The Greater Miami area hosts millions of tourists annually. The NPS would like to provide outreach to engage these potential visitors. The NPS is consulting with the City of Miami to provide visitor contact opportunities in the Dinner Key area. The NPS is also pursuing concession opportunities, including in the Dinner Key area, to expand on those previously offered in Convoy Point. No new NPS facilities will be built to support concession services.

Bay and Ocean Waters

The multiuse zone will be applied to most of the park's water acreage. The multiuse zone includes 148,358 acres of water, which is 85% of park waters.

There will be two slow speed (minimum wake) zones. The first one will be parallel to the park's mainland shoreline extending out 1,000 feet from the park's northern boundary to the north end of Midnight Pass near the park's southern boundary. Midnight Pass will remain open and part of the multiuse zone. The second area will be along Caesar Creek, south of Adams Key to Porgy Key, including the navigational channel between markers 20 to 24. The slow speed (minimum wake) zone includes a total of 2,435 acres,

or less than 2% of park waters. There will be an idle speed (no wake) zone along the bayside of Elliott Key beginning at Sands Key and extending south to Elliott Key Harbor.

Two shallow-water areas of the park will be included in the noncombustion engine use zone. This zone includes the waters around the park's southern keys including the bay side of Old Rhodes and Totten Keys, and near portions of Rubicon, Reid, Porgy, and Swan Keys. It will also include West, Middle, and East Featherbed Banks. Boats equipped with combustion engines could be used when propelled by push-pole or electric trolling motor, with outboard engine tilted up. The noncombustion engine use zone totals 903 acres, or less than 1% of the park.

Legare Anchorage

Legare Anchorage will be reduced to about one square mile and included in the sensitive underwater archeological zone to continue protecting underwater cultural resources. To facilitate protection and make it easier for boaters to identify, the area will be delineated by latitude and longitude lines and marked by dayboards or signs. Travel through the area in a vessel will be allowed, but drifting, mooring, anchoring, and entering the water would not. The use of underwater viewing devices will not be allowed. Recreational hook-and-line fishing will be allowed while trolling. Commercial fishing and trapping will not be allowed. This area could be used for permitted research activities.

Marine Reserve Zone

A marine reserve is a no-fishing area that functions as a long-term management approach, which improves the size and quantity of fish and provides habitat and ecosystem protection and preservation. The marine reserve zone has a management objective of providing swimmers, snorkelers, scuba divers, and those who ride a glass-bottom boat the opportunity to experience a healthy, natural coral reef with larger and more numerous fish and an ecologically intact reef system. Experience with marine reserves in Florida and elsewhere indicate that a well-designed marine reserve zone is a scientifically valid approach to increasing fish size and numbers and would likely enable visitors to experience larger and more numerous fish at the park. The marine reserve zone will provide important research opportunities to monitor the difference in reef ecosystem health and visitor experience compared to areas where fishing occurs (see appendix E in the Final *Final General Management Plan / Environmental Impact Statement* for more information on the marine reserve zone).

The marine reserve zone will be between Hawk Channel and the park's eastern boundary, extending from Pacific Reef north to Long Reef (approximately 10,512 acres). The proposed marine reserve zone will be about 6% of the waters of the park, and about 27% of the park's hardbottom communities, where corals grow or could be established; much of the park's hardbottom communities (73%) will be outside the zone and available for fishing. The marine reserve zone will allow visitors the opportunity to participate in reef activities such as boating, snorkeling, scuba diving, underwater photography, and nature viewing. Boats will have easy access via Caesar Creek and Hawk Channel. Anchoring will be allowed to continue in this zone until mooring buoys are phased in. Recreational and commercial fishing would be prohibited in this zone to encourage long-term protection of the reef ecosystem. Opportunities for spearfishing lionfish or other invasive species identified by the park will continue in this zone, consistent with the Fishery Management Plan, in order to maintain a natural healthy reef for visitors to enjoy.

As soon as practicable after the publication of the Notice of Availability and Summary of the Record of Decision in the *Federal Register*, the park will publish in the *Federal Register* for public comment a proposed special regulation to designate the marine reserve zone in the park. The park will not begin to implement the marine reserve zone until after promulgation of the final special regulation.

The Keys

Boca Chita Key

The northern portion of Boca Chita Key, including the day use area, campground, and boat basin, will be part of the visitor services / park administration zone. The management and use of the existing facilities in this northern portion of the key will remain as described in alternative 2 in the *Final General Management Plan / Environmental Impact Statement*. There will be no new construction. The southern portion of Boca Chita Key will be managed according to the multiuse zone. The private use of some visitor facilities via a park-issued special use permit will continue.

Elliott Key

Only the Elliott Key Harbor area will be included in the visitor services/park administration zone. The remainder will be in the multiuse zone (land). Elliott Key will continue to be open to visitors to dock (both day use and overnight docking/boat camping), picnic, hike, camp, access restrooms, and obtain potable water, as described in alternative 1 in the *Final General Management Plan / Environmental Impact Statement*.

Current visitor services and park administration facilities will continue to be used, but the specific uses of these facilities could change to improve efficiency, including opening a small visitor contact station in the multiuse building that currently houses the environmental education program. The park will continue to use Elliott Key as the main location for its environmental education program and to use Adams Key as a back-up location. A staging area for paddlecraft could be built on the Elliott Key developed area, allowing visitors to be shuttled by motorboat to the key and depart from there to explore the island shorelines. The Breezeway Loop Trail and boardwalk will be made universally accessible. The ranger residences will remain.

Adams Key

Only the southern portion of Adams Key that includes the dock, day use/park administration area, pavilion, restrooms, and the two ranger residences will be part of the visitor services / park administration zone. Existing facilities and uses will continue as described in alternative 1 in the *Final General Management Plan / Environmental Impact Statement*. A staging area for paddlecraft could be built at the Adams Key developed area, allowing visitors to explore the island shorelines.

In this alternative, the park could move the environmental education program to Adams Key. Additional facilities may need to be built or rehabilitated, and appropriate environmental planning would occur before construction. The northern portion of Adams Key will be in the multiuse zone and managed accordingly.

Porgy Key

Only the northern portion of Porgy Key will be placed in the visitor services/park administration zone. The ruins from the old Jones homesite will be maintained and interpreted on-site. A dock for paddlecraft will be established. The southern portion of the key will be in the multiuse zone and will be managed as described in the multiuse zone in this alternative.

Other Keys

Several keys will be included in the nature observation zone—Ragged Keys, Sands Key, Rubicon Keys, Reid Key, Old Rhodes Key, Totten Key, Gold Key, East Arsenicker Key, Long Arsenicker Key, and Mangrove Key.

West Arsenicker Key, Arsenicker Key, Soldier Key, Mangrove Key, and Swan Key contain waterbird nesting colonies that include State-listed species of wading birds. These keys including the water extending out 300 feet from these keys will be sensitive resource zones (no entry zones that would be marked by dayboards or buoys) to accommodate motorboat use in a greater area around the currently closed islands while protecting the sensitive resources of waterbird nesting colonies and State-listed plants. This setback distance is consistent with the best available science as well as the State's Species Action Plan for Six Imperiled Wading Birds. While access to the general public will be prohibited, scientific research would continue to be allowed following NPS research permitting procedures.

At Jones Lagoon, the noncombustion engine use zone provides boater access and ease of navigation in the creeks of the area. The sensitive resource zone will extend for 300 feet around the small keys within Jones Lagoon to protect the wading bird nesting colonies there.

Commercial Fishing

Overfishing, both recreational and commercial, was identified as a concern by many because of its potential to deplete fish stocks, damage the coral reef, and destroy other species through accidental capture. The issue of commercial fishing is addressed in the park's *Fishery Management Plan*, which was developed in consultation with the State of Florida. Because the *Fishery Management Plan* addresses future management of commercial fishing parkwide, the NPS has determined that any regulatory and policy processes relevant to the parkwide phase-out of commercial fishing at the park will not be addressed in the general management plan. The impacts of these proposed changes are assessed in the *Fishery Management Plan*. The Record of Decision for the *Fishery Management Plan* was signed July 10, 2014.

MITIGATION MEASURES TO MINIMIZE ENVIRONMENTAL HARM

Congress has charged the NPS 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, (54 USC 100101(a), 100301 *et seq.*; formerly 16 USC 1). As a result, the NPS routinely evaluates and implements mitigation whenever conditions occur that could adversely affect the sustainability of national park system resources.

To ensure that implementation of the selected alternative protects unimpaired natural and cultural resources and the quality of the visitor experience, a consistent set of mitigation measures will be applied to actions implemented as a result of this *Final General Management Plan / Environmental Impact Statement*. The NPS will prepare appropriate environmental review (i.e., those required by the National Environmental Policy Act, National Historic Preservation Act, Clean Water Act, and other relevant legislation) for these future actions. As part of the environmental review, the NPS will avoid, minimize, and mitigate adverse impacts when practicable. The implementation of a compliance monitoring program could be considered to stay within the parameters of NEPA and NHPA compliance documents and U.S. Army Corps of Engineers section 404 permits, etc. The compliance monitoring program will oversee these mitigation measures and will include reporting protocols.

The following mitigation measures and best management practices will be applied to avoid or minimize potential adverse impacts from implementation of the general management plan. Management strategies related to the impacts of climate change on park resources or actions described in this document are also included in the *Final General Management Plan / Environmental Impact Statement*.

Air Quality

The park will implement a dust abatement program as appropriate. Standard dust abatement measures could include the following elements—water sprinkling or otherwise stabilizing soils, covering haul trucks, employing speed limits on unpaved roads, minimizing vegetation clearing, and revegetation after construction.

Exotic Invasive Species

The park will implement a noxious weed abatement program as appropriate. Standard measures could include the following elements—ensure 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 noxious weeds before construction, treat noxious weeds or noxious weed topsoil before construction (e.g., topsoil segregation, storage, herbicide treatment), and revegetation with appropriate native species.

Nonnative wildlife that resides in the park includes the lionfish, green iguana, cane toad, and Mexican red-bellied squirrel. Some species, such as the lionfish, are actively targeted for control (NPS 2012). Nonnative wildlife that proves to become invasive and problematic are managed on a case-by-case basis and the nature of the species involved and feasibility of its eradication or population control are considered.

Soils

The park will build new facilities on soils suitable for development and minimize soil erosion by limiting the time that soil was 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. Areas will be re-vegetated with native plants in a timely manner once work was completed.

Special Status Species

Mitigation actions will occur during normal park operations as well as before, during, and after construction to minimize immediate and long-term impacts on rare, threatened, and endangered species. These actions will vary by the specific project and area of the park affected. Many of the measures listed below for vegetation and wildlife would also benefit rare, threatened, and endangered species by helping to preserve habitat. Mitigating actions specific to State and federally-listed rare, threatened, and endangered species will include the following:

- Conduct surveys for rare, threatened, and endangered species as warranted. Site and design facilities/actions to avoid adverse effects on rare, threatened, and endangered species. If avoidance is infeasible, minimize and compensate adverse effects on rare, threatened, and endangered species as appropriate and in consultation with the appropriate resource agencies.
- Develop and implement restoration and/or monitoring plans as warranted. Plans should include methods for implementation, performance standards, monitoring criteria, and adaptive management techniques.
- Implement measures to reduce adverse effects of nonnative plants and wildlife on rare, threatened, and endangered species.
- Implement intensive raccoon population control as consistent with the park's Raccoon Management Plan so as to improve sea turtle nesting success and minimize disturbances to sea turtle nests from raccoon predators, or to minimize raccoon/visitor incidents particularly in campground and picnic areas where raccoons become abundant and problematic.
- Implement reasonable and prudent measures as outlined in the biological opinion issued by NOAA Fisheries in September 2012.

Vegetation

Specific mitigation measures include the following:

- Monitor areas used by visitors (e.g., trails) for signs of native vegetation disturbance. Use public education, revegetation of disturbed areas with native plants, erosion control measures, and barriers to control potential impacts on plants from trail erosion or social trailing (visitor-created trails).
- Develop revegetation plans for disturbed areas and require the use of native species. Revegetation plans should specify seed/plant source, seed/plant mixes, soil preparation, etc. Salvage vegetation should be used to the extent possible.
- Continue performing integrated pest management practices on nonnative and/or invasive plant species, as described in the Exotic Plant Management Plan.

Water Resources

Specific mitigation measures include the following:

- To prevent water pollution during construction, use erosion control measures, minimize discharge to water bodies, and regularly inspect construction equipment for leaks of petroleum and other chemicals.
- Build a runoff filtration system to minimize water pollution from larger parking areas.
- The park will continue using fuel spill prevention devices when fueling boats.

Wildlife

Specific mitigation measures include the following:

- Employ techniques to reduce impacts on wildlife, including visitor education programs, restrictions on visitor activities, and park ranger patrols.
- Implement a natural resource protection program. Standard measures would include construction scheduling, biological monitoring, erosion and sediment control, the use of fencing or other means to protect sensitive resources adjacent to construction, the removal of all food-related items or rubbish, wildlife-proof trash cans, removal of monofilament and other marine debris, and derelict trap removal and revegetation. This could include specific construction monitoring by resource specialists as well as treatment and reporting procedures.
- Limit boating and nonmotorized recreation inside a 330-foot buffer around bald eagle nest sites during nesting season as recommended by the U.S. Fish and Wildlife Service. The park will use set-back distances of 300 feet for mixed-species colonies of nesting birds (such as egrets, herons, and ibises) as recommended by scientific literature as well as the State's Species Action Plan for Six Imperiled Wading Birds.

Wetlands

Wetlands potentially affected by new facilities will be delineated by qualified NPS staff or certified wetland specialists and clearly marked before construction work begins. Wetlands will be avoided or impacts will be minimized to the degree practicable. Construction activities will be performed in a cautious manner to prevent damage caused by equipment, erosion, siltation, etc. Facilities will be sited to avoid wetlands, or if that is not practicable, to otherwise comply with Executive Order 11990, "Protection of Wetlands" and regulations of the Clean Water Act. Permits will need to be acquired under section 404 of the act before conducting any activities that could cause adverse impacts on wetland habitats such as the discharge of dredge and fill material. Mitigation will likely be required to compensate for unavoidable impacts.

The preparation of a wetland statement of findings will be required for any action that will result in adverse impacts on wetlands, in compliance with the NPS "no net loss of wetlands" goal and other stipulations of Director's Order 77-1. The National Park Service would apply for section 404 permits and conduct other site-specific environmental compliance for actions affecting wetlands. If approved, the

new Convoy Point boardwalk will be constructed in certain areas to avoid or minimize direct impacts on wetlands.

Marine Reserve Zone

The marine reserve zone will be monitored, in consultation with FWC and other appropriate federal and state agencies, for: (1) distribution and cover patterns of stationary benthic organisms, (2) abundance and size structure for reef-associated fishes, (3) prevalence of marine debris, (4) the condition of submerged archaeological resources, (5) estimated visitation, (6) enforcement effort and results, and (7) economic data measuring the zone's direct and indirect impacts on jobs, income, spending, and local and state tax revenues related to commercial fishing, recreational fishing, diving, and related economic sectors. The park shall compile its existing data on these categories into a baseline report and release this report to the public as soon as practicable.

Every five years for a maximum of 20 years, the National Park Service will provide a peer-reviewed, five-year report that summarizes monitoring, research, and performance evaluation of the marine reserve zone regarding its stated goals, and release that report to the public within one year of the conclusion of each five-year monitoring period, or as soon as practicable.

The park will work with FWC and other appropriate federal and state agencies to establish one or more Memoranda of Understanding (MOU) to share information regarding data collection, coordinate monitoring efforts as practicable, and receive recommendations on monitoring of the marine reserve zone. As part of this process, the park would also consider recommendations to continue or modify the marine reserve zone, including its size, geographical extent, and other specific rules and restrictions. The recommendations should be based on data collected during the previous monitoring period(s) and may include preliminary data from the monitoring period in progress. Any MOU could be extended or renewed following each monitoring period.

The park will provide technical assistance in coordination with the Small Business Administration to identify additional business opportunities to assist commercial fishing operations, charter-for-hire operators, and other affected businesses that may be displaced as a result of marine reserve zone implementation. These additional business opportunities may include transition to commercial tourism operations within the park.

Snorkelers and divers can adversely affect reefs through physical contact and use of chemical sunscreens. This damage can be mitigated through education to promote responsible dive behavior and by use of in-water guides on commercial snorkel and dive tours, and through carefully designed and placed mooring balls.

Cultural Resources

The NPS will preserve and protect, to the greatest extent possible, resources that reflect human occupation of the park. Specific mitigation measures include the following:

- Continue to develop inventories for and oversee research regarding archeological, historical, and ethnographic resources to better understand and manage the resources. Continue to manage cultural resources and collections following federal regulations and NPS guidelines.

- Subject projects to site-specific planning and compliance. Make efforts to avoid adverse impacts through the use of The Secretary of the Interior's Standards for Archeology and Historic Preservation and by using screening and/or sensitive design that would be compatible with historic resources. If adverse impacts could not be avoided, mitigate these impacts through a consultation process with all interested parties.
- Complete the section 106 review for each undertaking that may stem from the general management plan in accordance with the programmatic agreement among the NPS, the Advisory Council on Historic Preservation (ACHP), and the National Conference of State Historic Preservation Officers for compliance with section 106 of the National Historic Preservation Act (2008), and section 106 implementing regulations, "Protection of Historic Properties" (36 CFR 800).
- Inventory all unsurveyed areas in the park for archeological, historical, and ethnographic resources as well as cultural and ethnographic landscapes. Conduct archeological surveys in unsurveyed areas where development would occur to determine the extent and significance of archeological resources in the areas.
- Document cultural and ethnographic landscapes in the park and identify treatments to ensure their preservation.
- Conduct archeological site monitoring and routine protection. Conduct data recovery excavations at archeological sites threatened with destruction where protection or site avoidance during design and construction is infeasible. Should archeological resources be discovered, stop work in that location until the resources were properly recorded by the NPS and evaluated under the eligibility criteria of the National Register of Historic Places. If, in consultation with the Florida state historic preservation office, the resources were determined eligible, implement appropriate measures either to avoid further resource impacts or to mitigate the loss or disturbance of the resources.
- Avoid or mitigate impacts on ethnographic resources that may be identified in the future through continuing consultation with American Indian tribes and other stakeholders.
- Conduct additional background research, resource inventory, and national register evaluation where information about the location and significance of cultural resources is lacking. Incorporate the results of these efforts into site-specific planning and compliance documents.
- Whenever possible, modify project design features to avoid effects on cultural resources. New developments would be relatively limited and would be located on sites that blend with cultural landscapes. If necessary, use vegetation screening as appropriate to minimize impacts on cultural landscapes.
- Strictly adhere to NPS standards and guidelines on the display and care of artifacts, including artifacts used in exhibits in the visitor center.

Soundscapes

The park will develop a park soundscape management plan to: (1) establish soundscape standards for each management zone, (2) monitor park soundscape resources and sources of noise against those standards, and (3) implement an adaptive management program to ensure that soundscape standards are met.

Standard noise abatement measures would be followed during construction. Such measures could include the following:

- scheduling to minimize impacts on adjacent noise-sensitive resources
- using the best available noise control techniques wherever feasible
- using hydraulically or electrically powered tools when feasible rather than gasoline engine powered
- locating stationary noise sources as far from sensitive resources as possible
- locating and designing park and visitor facilities and visitor services to minimize objectionable noise.

Sustainable Design and Aesthetics

Projects will avoid or minimize adverse impacts on natural and cultural resources. Development projects (e.g., buildings, facilities, utilities, roads, bridges, and trails) or reconstruction projects (e.g., road reconstruction, building rehabilitation, and utility upgrade) will be designed to be in harmony with the surroundings, particularly in historic districts. Projects will reduce, minimize, or eliminate air and water nonpoint source pollution and will be sustainable whenever practicable by recycling and reusing materials, by minimizing materials and energy consumption during the project and throughout its lifespan.

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 General Management Plan / Environmental Impact Statement*.

Alternative 1: No Action

The no-action alternative consists of a continuation of existing management and trends at the park and provides a baseline for comparison in evaluating the changes and impacts of the other alternatives. The NPS would continue to manage the park as it is currently being managed. Existing operations and visitor facilities would continue, and no new construction would be authorized other than what has already been approved and funded. Under this alternative, current park management direction would continue as guided by the 1983 management plan and subsequent more detailed implementation plans. Current law and policy would continue to provide the framework of guidance.

Alternative 2

Under alternative 2, NPS would emphasize the recreational use of the park while providing resource protection as governed by law, policy, or resource sensitivity. This concept would be accomplished by providing a high level of services, facilities, and access to specific areas of the park.

Alternative 3

Under alternative 3, NPS would allow all visitors a full range of visitor experiences throughout most of the park and would use a permit system to authorize a limited number of visitors to access some areas of the park. This alternative includes a “no fishing” marine reserve zone and access by permit zones. Management actions would provide strong natural and cultural resource protection and diverse visitor experiences.

Alternative 4

Under alternative 4, NPS would emphasize strong natural and cultural resource protection while providing a diversity of visitor experiences. Some areas would be reserved for limited types of visitor use. This alternative includes a “no fishing” marine reserve zone.

Alternative 5

Under alternative 5, NPS would promote the protection of natural resources, including taking actions to optimize conditions for protection and restoration. A permit system would be used in some parts of the park. This alternative includes a “no fishing” marine reserve zone and an access by permit zone to have limited numbers of visitors, manner of access, and recreational activities to provide certain experiences.

Alternative 6

Under alternative 6, NPS would emphasize strong natural and cultural resource protection while providing a diversity of visitor experiences. Some visitor activities would be restricted in certain areas to protect sensitive resources and allow wildlife a respite from human contact. Other areas, such as the Legare Anchorage, would be reserved for limited types of visitor use. As part of an adaptive management strategy, this alternative includes a special recreation zone that accommodates some recreational fishing authorized via a limited number of permits while meeting the goal of providing a healthy coral reef ecosystem for a more enjoyable and diverse visitor experience. Commercial fishing with the exception of ballyhoo would be prohibited in this zone.

Alternative 7

Under alternative 7, NPS would emphasize strong natural and cultural resource protection while providing a diversity of visitor experiences. Alternative 7 is similar to alternative 6, but instead of fishing permits, the special recreation zone would have a seasonal fishing closure that accommodates some recreational fishing while meeting the goal of providing a healthy coral reef ecosystem for a more enjoyable and diverse visitor experience. The special recreation zone would be managed as part of an adaptive management strategy. Consistent with alternative 6 commercial fishing with the exception of ballyhoo would be prohibited in this zone.

BASIS FOR DECISION

This record of decision for alternative 8, the selected alternative, has been developed in accordance with the policies and purposes of the National Environmental Policy Act of 1969, as amended (42 USC 4321

et seq.), which requires relevant environmental documents, comments, and responses be part of the record in making decisions. Furthermore, the act requires that the alternatives considered by the decision-maker are encompassed by the range of alternatives discussed in the relevant environmental documents and that the decision maker consider the alternatives described in the environmental impact statement.

As described earlier, a full range of alternatives was developed as part of the environmental impact statement. Alternative visions for managing the park were developed by identifying different ways to address the planning issues in context with the park's purpose and significance. In developing this range of alternatives, the NPS adhered to the requirements of the National Environmental Policy Act, while giving careful consideration to the park's enabling legislation.

Alternative 8, a hybrid of alternatives 4 and 6, has been selected by the regional director because it provides the best combination of strategies to protect the park's unique resources and diversity of visitor and would be more efficient to implement compared to permits and law enforcement associated with closures. Ultimately, one of the largest determining factors in identifying alternative 8 as the agency's final preferred management alternative was its significant advantage in natural resource protection. Key advantages of the selected alternative include the following:

- Allows natural conditions and processes to be maintained and restored.
- Provides an appropriate range of visitor opportunities.
- Includes reconfigured zones based on public input that accommodate easy access, a wide range of recreational pursuits and are more efficient to monitor and enforce.
- Provides visitors who snorkel, dive, and ride a glass-bottomed boat the opportunity to experience an ecologically intact reef system with larger and more numerous fish.
- Increases protection of marine nursery areas, seagrass habitat and coral reefs through the use of noncombustion, slow speed (minimum wake), idle speed (no wake), and sensitive resource zones.
- Seeks to increase fish size and numbers, restore coral reef ecosystems and enhance visitor opportunities through implementation of a no-fishing marine reserve identified by published scientific studies.
- Protects park reefs from pressures such as fishing, physical damage from fishing gear, anchoring, and vessel groundings. This will support the resiliency of the park reefs, potentially delaying the effects of global-scale stressors such as climate change, ocean acidification, and land-based sources of pollution.
- Preserves cultural resources (archeological, historic structures, and cultural landscapes).
- Increases inventory, monitoring, and protection opportunities for natural and archeological resources.
- Provides a broader range of research opportunities.
- Retains 85% of current visitor use activities in the park land and waters while making management changes to improve resource protection, visitor experience, and safety.

The advantages of alternative 8 for maximizing the diversity of visitor experiences include enhanced opportunities for information, education, and interpretation in Boca Chita Key, Elliot Key, Adams Key, Porgy Key, Key Largo, county marinas that provide entrance to the park, and the Miami metropolitan

area. In comparison to the other alternatives, alternative 8 will also require the least amount of additional maintenance work because it proposes the least number of new developments.

The decision to select the final preferred alternative is also based on extensive NPS analysis of the beneficial and adverse impacts of all alternatives. The results of this analysis, found in chapter 4 of the *Final General Management Plan / Environmental Impact Statement*, demonstrate that the selected alternative has the greatest beneficial effect across a range of park resources and values, including: natural and cultural resources, visitor use and experience, park operations, and socioeconomics.

The decision for the *Final General Management Plan / Environmental Impact Statement* is also based on comments made during public meetings or official comments submitted by the public or partner agencies. Due to some agency and public comments received during the 2011 Draft Plan public comment period regarding the proposed marine reserve zone, the NPS worked with the FWC to develop two alternatives with a special recreation zone, which provided some protection for a larger coral reef area while still allowing regulated fishing, whether via special access licenses or seasonal closures. The NPS acknowledges that the special recreation zone is a novel approach and if it had been implemented, the NPS would have tested the effectiveness of using known fisheries management practices to reduce fishing pressure and improve the coral reef ecosystem through adaptive management. The special recreation zone concept was released for public review in the 2013 *Supplemental Draft General Management Plan / Environmental Impact Statement* and there were still substantial concerns about implementation, cost, effectiveness, and equity of the special recreation zone. The State rescinded its support for alternative 6 and additional habitat analysis determined that the amount of coral reef resources could not support the proposed number of special access licenses. Further analysis served to highlight the special recreation zone deficiencies in improving the numbers and size of fish using seasonal closures as proposed in alternative 7.

The selected alternative includes the originally proposed marine reserve zone because its size, shape, and location were determined through public input and scientific review and because the effectiveness of marine reserves has scientific precedent in published literature. For example, both the Dry Tortugas and the Tortugas Ecological Reserve in the Florida Keys National Marine Sanctuary have shown marked ecological improvements to the coral reef ecosystem and improved fishing in adjacent areas. The NPS anticipates that establishing a marine reserve zone will give park reefs the greatest opportunity for reef ecosystem recovery in order to be resilient to these external threats. Where appropriate, recommended changes including reconfiguring zones to facilitate visitor access, marking and compliance were presented in the 2013 *Supplemental Draft General Management Plan / Environmental Impact Statement* and retained in the selected alternative. Additionally, alternative 8 incorporates public comments to provide more clarity, expand on proposed management strategies, or provide factual corrections and are reflected in the *Final General Management Plan / Environmental Impact Statement*.

The selected alternative included in the *Final General Management Plan / Environmental Impact Statement* meets the enabling legislative requirements to preserve, conserve, and protect natural and cultural resources while providing for public enjoyment. Also, the selected alternative best meets the obligation of the NPS to provide high-quality visitor experience and protect resources. The selected alternative also addresses public comments and concerns received, as summarized in the section entitled, "Public and Agency Involvement" in this record of decision.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The NPS in accordance with the Department of the Interior NEPA Regulations (43 CFR part 46) and the *Council on Environmental Quality's Forty Most Asked Questions*, defines the environmentally preferable alternative (or alternatives) as the alternative 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).

After considering the environmental consequences of the eight management alternatives, including consequences to the human environment, the NPS has concluded that alternative 5 is the environmentally preferable alternative. Alternative 5 was previously identified in the 2011 *Draft General Management Plan / Environmental Impact Statement* and the 2013 *Supplemental Draft General Management Plan / Environmental Impact Statement* as the environmentally preferable alternative, which remains unchanged. Alternative 5 from the *Final General Management Plan / Environmental Impact Statement* would support the highest level of resource protection and active, beneficial management of any of the alternatives. In this respect, alternative 5 provides greater overall limitations in other areas to provide additional protection for sensitive natural and cultural resource areas. Alternative 5 would provide the highest comparative level of protection of park resources based on the extent of the proposed marine reserve zone. Because the park's most significant cultural resources would be targeted for preservation efforts and the sensitive coral reef and reef patches in the southeast section of the park would be protected under this alternative, it best preserves important historic, cultural, and natural aspects of our national heritage of all alternatives considered. The resource protection elements of the large marine reserve zone in this alternative would come at some cost to visitor opportunities and flexibility, even given the anticipated spillover effect resulting in improved fishing outside the marine reserve zone. However, this alternative may also provide an enhanced visitor experience in these zones for some visitors because of diversified education and improved recreational opportunities in these areas. Alternative 5 was identified as the environmentally preferable alternative because it is the alternative that would best protect the largest amount of park lands and waters and the most sensitive resources and habitats from the negative impacts of motorized boating, fishing, and marine debris. It also includes specific actions to enhance the preservation of important natural and cultural resources.

PUBLIC AND AGENCY INVOLVEMENT

This *Biscayne National Park Final General Management Plan / Environmental Impact Statement* was based on input from the NPS, other agencies, American Indian tribes, and the public. Consultation and coordination among these groups was vitally important throughout the planning process. The public had several avenues available to provide comments during development of the *Final General Management Plan / Environmental Impact Statement*, including public meetings, postal mail, e-mail, and the internet via the NPS Planning, Environment, and Public Comment website. A complete summary of the public comments shared during these public comment periods and public meetings can be found in Chapter 5 of the *Final General Management Plan / Environmental Impact Statement*.

Public Meetings and Newsletters

Public Scoping

The NPS initiated public scoping for the *Draft General Management Plan / Environmental Impact Statement* in 2001 with a scoping newsletter, followed by five public meetings in Florida and Washington, D.C. The newsletter described the general management plan process and asked the public to consider what they value about the park, their concerns, and their vision for the park. The newsletter was mailed to members of governmental agencies, organizations, businesses, legislators, local governments, and interested citizens. A total of 2,667 comments were received from participants during the meetings, from mailing response cards, and through e-mail. Of these, 784 bulk mail comments were received from the National Parks Conservation Association, and an additional 613 electronic and bulk mail comments were received regarding Stiltsville. Comments were also received from seven environmental and special interest groups as well as a request for additional information from one local governmental entity. The range of comments related to the GMP has remained consistent throughout the public participation process for developing the general management plan.

Alternatives Development

A second newsletter was published in September 2001. The focus of that newsletter was to share the input received during the initial scoping process and to introduce draft management prescriptions for the park. Two public meetings were also held in September. A total of 769 comments were received during the public meetings, from mail-in response cards, and through e-mail. Of these, 381 were electronic bulk mail responses from National Parks Conservation Association members. Comments were also received from one local government entity and four environmental or special interest groups. The public was asked to review and comment on six draft management zones that described different approaches to managing areas within the park.

A third newsletter was distributed and three public meetings were held in Florida following its release in 2003. This newsletter described the five draft alternatives being considered to guide management of the park, including a preferred alternative. A total of 5,264 comments were received by mail and e-mail. Of these, 4,907 were form letter e-mails and 158 were cards and letters with similar comments. Another 850 comments were received from 104 people who attended three public meetings. In addition, four government agencies and 11 nongovernmental organizations and educational institutions provided comments.

Four state and local government agencies provided comments on the preliminary alternatives including: the Biscayne Bay Aquatic Preserve, the Florida Department of Environmental Protection, Division of Recreation and Parks with the Office of Park Planning, the South Florida Regional Planning Council and the South Florida Water Management District.

Marine Reserve Workshop

In 2009, the park held three public workshops to share possible criteria for determining the size, shape, and location of a marine reserve zone and asked the public to draw possible zones on park maps. A total of 81 participants attended representing a variety of stakeholders. Attendees received a presentation and handouts about marine reserves results from around the world and the US, and about

the park's boundaries, markers, and natural and cultural resource locations. The resulting public-proposed maps were analyzed by marine scientists from universities, NOAA Fisheries, and the National Park Service and ranked in order of effectiveness of reaching zone goals. The NPS then used an interdisciplinary team to propose the final zone size, shape, and location based on the scientists' rankings of the public-proposed zones. See appendix D of the *Final General Management Plan / Environmental Impact Statement* for more details on the criteria and process.

Release of the Draft General Management Plan / Environmental Impact Statement

The *Draft General Management Plan / Environmental Impact Statement* was released to the public in August 2011. Three public meetings were held during the public comment period in Miami, Florida City, and Key Largo to review the draft plan and receive public input and more than 300 people attended the public meetings. The overwhelming majority of the approximately 18,000 comments supported an alternative that contained a marine reserve zone, with 294 comments in opposition. State and local agencies provided comments, where support was varied from complete support to conditional support due to limitations on fishing in the park.

Development of Supplemental Draft General Management Plan / Environmental Impact Statement

In light of the concerns raised by the State of Florida and a number of other stakeholders, the NPS undertook an evaluation process to consider a number of management actions that could be enacted to achieve its objective of a diversified visitor use experience. In 2012 and 2013, the NPS examined a wide range of management strategies that included varying degrees of access for the diversity of visitor experience, primarily within the area being considered for the marine reserve zone. All proposals were evaluated for protection of natural and cultural resources in the park. A number of additional meetings were held with federal and state authorities to discuss these new proposals.

Release of the Supplemental Draft General Management Plan / Environmental Impact Statement

The *Supplemental Draft General Management Plan / Environmental Impact Statement* was released to the public on November 14, 2013. The plan was open for public and agency comments for a 60-day period ending on February 20, 2014. Three public meetings were held in early December 2013 in Miami, Homestead, and Key Largo to review the supplemental plan and receive public input. During the public comment period, approximately in 2013, a total of 177 people attended public meetings, and 14,000 pieces of correspondence were received containing approximately 1,800 comments, where the overwhelming majority supported the concept of a marine zone. There was limited support for the special recreation zone alternatives.

Due to continued agency and public concerns on the *Supplemental Draft General Management Plan / Environmental Impact Statement*, three additional public workshops were held in September 2014 in Miami, Homestead, and Key Largo, which were attended by a total of 241 people. At both the 2013 and 2014 public meetings, the public expressed concern about the size and location of the Special Recreation Zone, perceived inequity of allowing recreational fishing and commercial fishing of ballyhoo while ending all other commercial fishing, and the experimental nature of such a zone.

Agency and American Indian Consultation and Coordination

Consultation letters referenced in this section can be found in appendix C and appendix F of the *Final General Management Plan / Environmental Impact Statement*.

Federal Agencies

The NPS contacted the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (NMFS, now NOAA Fisheries) on October 2000. Letters were sent to both agencies, advising them of the NPS planning process for this General Management Plan / Environmental Impact Statement and requested a current list of federally listed threatened, endangered, or candidate species within the park. On October 31, 2000, a letter was received from NMFS providing a list of the species under their jurisdiction in Florida. The U.S. Fish and Wildlife Service directed the NPS to obtain the most current list from the USFWS website. Update letters were sent to the U.S. Fish and Wildlife Service and NMFS in July 2010.

Copies of the 2011 *Draft General Management Plan / Environmental Impact Statement* and the 2013 *Supplemental Draft General Management Plan / Environmental Impact Statement* were sent to both agencies for review and a determination of concurrence on NPS findings concerning listed species and critical habitat. On October 11, 2011, the NOAA Office of Program Planning and Integration responded with support for the non-extractive use Marine Reserve Zone, and concurred that an Essential Fish Habitat assessment was not needed because there would be no adverse effects to Essential Fish Habitat from the preferred action. On September 19, 2012, the NPS received the biological opinion from NOAA Fisheries that included section 7 determinations on the marine species that were listed at the time of the 2011 plan release including sea turtles, staghorn and elkhorn coral, and smalltooth sawfish. In February 2014, NOAA Fisheries reaffirmed their previously submitted biological opinion, and that the impacts on the corals proposed for listing (and officially listed in September 2014) were deemed to be the same as determined for the staghorn and elkhorn corals. On May 22, 2014, the NPS received a memo of concurrence from the U.S. Fish and Wildlife Service regarding potential impacts on listed species under their jurisdiction, concluding the selected action may affect but are not likely to adversely affect manatees, nesting sea turtles, American crocodiles, Schaus swallowtail butterflies, or Miami blue butterflies.

Sea turtles are jointly administered. NOAA Fisheries has the lead responsibility for the conservation and recovery of sea turtles in the marine environment, and the U.S. Fish and Wildlife Service has the lead responsibility for conservation and recovery of sea turtles on nesting beaches. NOAA Fisheries determinations for federally listed sea turtles are “may affect, likely to adversely affect.” The Park determined that alternative 8 does not change the proposed actions the earlier consultation process addressed. Therefore, reinitiating formal consultation is not required through the provisions of 50 CFR 402.16, which is referenced in the biological opinion received from NOAA Fisheries on September 19, 2012.

The U.S. Environmental Protection Agency reviewed the 2011 *Draft General Management Plan / Environmental Impact Statement* and responded to the draft on October 14, 2011 with recommendations to include more information. The EPA responded to the 2013 *Supplemental Draft General Management Plan / Environmental Impact Statement* on February 20, 2014 and gave the plan a “Lack of Objection”

rating. The EPA responded to the *Final General Management Plan / Environmental Impact Statement* on June 30, 2015, and stated that “EPA agrees with the NPS that Alternative 8, with consideration of additional Best Management Practices, would be the most balanced and environmentally-sound approach.”

The NPS contacted the Advisory Council on Historic Preservation in January 2001 inviting their participation in the planning process. A letter was sent to update the Advisory Council on Historic Preservation about the continuation of the planning effort and progress of the general management plan in October 2010. The advisory council had an opportunity to review and comment on the draft plan and issued a letter of concurrence in April 2014.

State Agencies

The NPS contacted the Florida state historic preservation office (SHPO) in January 2001 inviting their participation in the planning process. The state historic preservation office responded positively to the request to consult. All the newsletters were sent to the Florida SHPO. NPS sent a letter in October 2011 to update the Florida SHPO about the continuation of the planning effort and progress of the *Draft General Management Plan / Environmental Impact Statement*. In letters dated September 2011 and January 2014, the Florida SHPO stated in letters that the 2011 Draft Plan and 2013 Supplemental Plan, respectively, adequately addressed cultural resources within the park.

The NPS contacted FWC in October 2000 in a letter advising the agency of the NPS planning process for this General Management Plan / Environmental Impact Statement and sought information on species in the park. On October 20, 2000, a letter was received from the FWC with information on state listed species that may be in the park.

The NPS received a letter from the Florida Department of Environmental Protection (FDEP) in January 2012, including a letter from the FWC, stating a number of their concerns about the NPS alternative 4 as the preferred alternative in the *Draft General Management Plan / Environmental Impact Statement*. In particular, FDEP and FWC identified a number of Florida statutes and policies of the Florida Coastal Management Program as the basis for their objections to the general management plan under the Coastal Zone Management Act. The State of Florida asserted that certain management actions and zones proposed in the general management plan, notably the marine reserve zone, are inconsistent with enforceable policies included in the Florida Coastal Zone Management Program absent changes to alternative 4. In addition, the FWC felt the implementation of a marine reserve through the GMP was inconsistent with the existing memorandum of understanding between the FWC and the NPS as related to the GMP. The position of the State of Florida was that any consideration of a marine reserve zone could only occur after measurable management objectives have been clearly defined and less restrictive management measures have been appropriately implemented and evaluated in close coordination with the FWC and stakeholders.

The NPS maintains that the 2011 *Draft General Management Plan / Environmental Impact Statement* is consistent with the Coastal Zone Management Act and the memorandum of understanding. However, the NPS did attempt to resolve some of the concerns with changing some proposed zone configurations for the slow speed zones and non-combustion engine use zones, and by the creation of a special recreation zone developed in consultation with the FWC, and presented for public review in the 2013 *Supplemental Draft General Management Plan / Environmental Impact Statement*. As described in alternative 6, the

special recreation zone would have provided for some recreational fishing through a special activity license to be issued dually by the FWC and the NPS.

In March 2014, the NPS received another letter from FDEP, including a letter from the FWC, raising a number of concerns about Alternative 6. In particular, the Florida Department of Environmental Protection and the FWC opposed several key aspects of the special recreation zone, including the number and type of permits to be issued, gear limitations (specifically the prohibition on spearfishing), and the anchoring prohibition. The FWC also required modifications to the special recreation zone to allow transit of boats with fish caught outside the zone to travel through the zone and the inclusion of options in the adaptive management strategy to become less restrictive at each evaluation period. The FWC also opposed the dual permit system and stated that the permit should be issued at no cost to the recipient. The FWC also reaffirmed their opposition to the seasonal fishing closure proposed in alternative 7 and the marine reserve zone in alternatives 3, 4, and 5. Again, the State of Florida asserted that certain management actions and zones proposed in the 2013 *Supplemental Draft General Management Plan / Environmental Impact Statement* were inconsistent with enforceable policies included in the Florida Coastal Management Program. In addition, the FWC reiterated that the implementation of a marine reserve through the GMP was inconsistent with the existing memorandum of understanding between the FWC and the NPS as related to the Fishery Management Plan. The FWC requested that the NPS undertake additional stakeholder engagement with recreational and commercial fishing interests; changes to zone descriptions, names, and markings; transit of personal watercraft via the Intracoastal Waterway through park waters; and a commitment that a future Miami-area visitor center will not be built within or adjacent to the Bill Sadowski Critical Wildlife Area on Virginia Key.

In October 2014, the FWC sent a letter withdrawing its support for alternative 6, and expressing support for an alternative that had a special recreation zone with a seasonal closure zone as proposed in alternative 7 but of the zone shape, size, and location as proposed in alternative 4. They also expressed support for the other zones (e.g., slow speed zone, noncombustion engine use zone) as proposed in alternative 6.

With the 2015 final plan, the NPS changed the names and management of the proposed slow speed zones to two zones, the slow speed (minimum wake) zone and the idle speed (no wake) zone, to be consistent with State marine regulation terminology as the State requested. None of the plans (2011 draft plan, 2013 supplemental draft plan, or 2015 final plan) proposed a visitor center within or adjacent to the Bill Sadowski Critical Wildlife Area. The final plan is consistent with the memorandum of understanding between the FWC and the NPS, which states “Furthermore, the FWC and the Park recognize that the Park intends to consider the establishment of one or more marine reserves (no-take areas) under its General Management Planning process for purposes other than sound fisheries management in accordance with Federal authorities, management policies, directives and executive orders.” This language in the MOU was in the original version signed by both parties in October 2002, and that same language remained in the MOU renewals in 2007 and 2012.

American Indians

The NPS recognizes that indigenous peoples may have traditional interests and rights in lands now under NPS management. Related American Indian concerns are sought through Native American Consultation. The need for government-to-government consultation stems from the historic power of Congress to make treaties with American Indian tribes as sovereign nations. Consultation with American Indian tribes

is 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 of 1966, as amended. Implementing regulations of the Council on Environmental Quality for the National Environmental Policy Act of 1969 also require Native American Consultation.

The NPS contacted the Miccosukee Tribe of Indians of Florida, the Seminole Tribe of Florida, and the Seminole Nation of Oklahoma by letter in January 2001. The tribes were briefed on the scope of the planning project and the preliminary alternatives by newsletter and follow-up telephone calls soliciting comments. Subsequent meetings with the Miccosukee Tribe in 2002 provided perspectives on planning that the park considered in the formulation of the management plan alternatives. Comments by the Miccosukee included recommendations to see American Indian sites preserved in place, the return of all artifacts to their in situ location after archeological research is completed, and limiting visitor access to certain identified sites. In addition, the tribe wants to be contacted if human remains are located. The tribe also desires to be kept informed about research proposals in the park. Other tribes had no comments at that time. It was also communicated that it is important that park interpretation include the American Indian perspective.

The NPS sent letters to the Miccosukee Tribe of Indians of Florida, the Seminole Tribe of Florida, and the Seminole Nation of Oklahoma to update them on the progress of the *Draft General Management Plan / Environmental Impact Statement* in October 2010. The NPS invited the three tribes to participate in government to government consultation on the 2011 Draft Plan but did not receive any official comments from any tribe. The Seminole Tribe of Florida's Tribal Historic Preservation Officer (THPO) submitted a letter of no objection for the 2013 Supplemental Plan in December 2013.

Local Agencies

The NPS contacted the Miami-Dade Historic Preservation Division in 2001 to ask for their involvement in the consultation process. No response was received. The NPS sent a letter to update Miami-Dade County about the continuation of the planning effort and progress of the general management plan in October 2010. On December 16, 2014, the Miami-Dade County Commission unanimously passed a resolution supporting the creation of a marine reserve in the park through the General Management Plan.

On February 19, 2014, Monroe County passed a resolution against the Special Recreation Zone and in favor of a smaller closed or restricted area north of Caesar's Creek.

ATTACHMENT: 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 4 of the *Final General Management Plan / Environmental Impact Statement* for the NPS selected 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 or proclamation of the park, or
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- identified in the 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 experience, socioeconomics, public health and safety, environmental justice, land use, and NPS operations because impairment findings relate back to park resources and values. These impact areas 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.

Natural Resource Topics

Fisheries

The park provides habitat for many species of fish such as bonefish, snook, tarpon, permit, pink shrimp, spotted sea trout, oysters, clams, blue and stone crabs, bait fishes; and numerous coral reef fishes including snappers, groupers, grunts, barracuda, spadefish, spiny lobster, parrotfish, surgeonfish, and triggerfish. There are more than 325 fish and marine macroinvertebrate species in the park. The maintenance of healthy fish populations and fish habitat is important to the ecology of Biscayne Bay and the offshore marine areas as well as the recreating public.

Healthy fish populations are necessary to fulfill the purposes for which the park was established and are key to the natural integrity of the park. The actions in the selected alternative would have only beneficial impacts because of the additional protective measures including noncombustion engine use zones, slow speed zone (minimum wake), idle speed zone (no wake) and a no-fishing marine reserve zone. These measures would reduce the taking of live fish and provide less disturbance of some habitat in the bay used for cover by young fish or for breeding. Because of these beneficial effects, the selected alternative would not result in impairment.

Federal Special Status Species

The Endangered Species Act requires federal agencies to ensure that their activities would not jeopardize the existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species. Consultation with the U.S. Fish and Wildlife Service and NOAA Fisheries identified a number of federal threatened, endangered, or species of concern that warrants the inclusion of this topic in this *General Management Plan / Environmental Impact Statement*. Some species on this list were dismissed from detailed analysis because they do not exist in the park or would not be affected by any proposed actions. Those that were retained for further analysis are the West Indian manatee, several sea turtle species, the American crocodile, the Smalltooth sawfish, the Schaus swallowtail butterfly and Miami blue butterfly, and several stony coral species. Implementing alternative 8, the selected alternative, will result in a beneficial impact on manatees, the American crocodile, Schaus swallowtail butterfly and the Miami blue butterfly resulting in a determination of “may affect, not likely to adversely affect” and “may affect, likely to adversely affect” on sea turtles, smalltooth sawfish and stony corals within the park. For details on the endangered species consultation process, see “Agency and American Indian Consultation and Coordination: Federal Agencies” above.

Viable populations of special status species are necessary to fulfill the purposes for which the park was established and are key to the natural integrity of the park. The actions in the selected alternative would have only beneficial impacts because of additional protective measures including the management measures that would be undertaken in the nature observation zone, slow speed (minimum wake) and idle speed (no wake) zones, noncombustion engine use zones, and the no-fishing marine reserve zone. Habitat disturbance, the number of collisions with boats, and the taking of sea life would be reduced in these zones. Because of these beneficial effects, the selected alternative would not result in impairment.

State Listed Species

A list of state listed special status species was obtained from FWC. Some species on this list were dismissed from detailed analysis because they do not exist in the park or would not be affected by any proposed actions. Those that are retained for further analysis are the bald eagle and state listed wading birds and state listed white-crowned pigeons. These species can be found on some of the keys in the park.

Viable populations of rare native species are necessary to fulfill the purposes for which the park was established and are key to the natural integrity of the park. Actions in the selected alternative would have negligible adverse effects on bald eagles, state listed wading birds, and state listed white-crowned pigeons because additional disturbance could result from the slightly increased development and visitor use of Elliott Key. These actions would not be likely to lead to federal listing. Placement of the nature observation zone and the slow speed (minimum wake) zone in the open water along portions of the mainland shoreline and idle speed (no wake) zone on the bayside of Elliott Key would reduce the likelihood of disruption of birds using the coastal areas immediately adjacent to these zones. The sensitive resource zones proposed for the islands that host waterbird nesting colonies and extending out 300' for most of these colonies would greatly reduce the potential for human disturbance of these sensitive resources, as described in Chapter 4 of the *Final General Management Plan / Environmental Impact Statement*. This would have long-term, beneficial impacts on state listed birds. Because the actions of the selected alternative would only cause slight adverse effects on these species, the selected alternative would not result in impairment.

Terrestrial Vegetation

In the park, the keys are composed of limestone outcroppings that support tropical hardwood hammocks. Hammocks are evergreen, broad-leaved forest composed predominantly of trees common to the Bahamas and Greater Antilles. The canopy is typically 29–39 feet (9–12 meters) tall with gumbo limbo, pigeon plum, wild tamarind, willow bastic, Jamaica dogwood, mastic, and strangler fig as common trees. The subcanopy contains white stopper, Spanish stopper, crabwood, torchwood, wild coffee, and marlberry. Hammocks are typically abundant with epiphytic plants, including orchids, bromeliads, and ferns. A mature hammock has relatively open understory. As the elevation slopes towards sea level, halophytic (salt-tolerant) plants such as buttonwoods become more dominant.

Healthy native terrestrial vegetation is necessary to fulfill the purposes for which the park was established and is key to the natural integrity and enjoyment of the park. The selected alternative would result in adverse impacts from increased visitation and hardening of the loop trail on Elliott Key that could include increased trampling and small loss of vegetation. Because these would be only slight adverse impacts, the selected alternative would not result in impairment.

Submerged Aquatic Communities

The park encompasses a mosaic of submerged aquatic communities, including seagrasses, hardbottom, barebottom, and coral reef. The combination of these communities makes the area ecologically rich and biologically diverse. The seagrass beds or meadows in Biscayne Bay cover about 72,000 acres, or about 42% of the park area. The seagrass beds provide shelter from predators, breeding and nursery areas for many fish, and forage for other species such as the manatee. The beds also absorb nutrients from coastal and estuarine systems, stabilize substrates, and minimize the effects of wave action.

Healthy marine communities are necessary to fulfill the purposes for which the park was established and are key to the natural integrity of the park. The actions in the selected alternative would have beneficial impacts because of additional protective measures including nature observation zones, slow speed zones (minimum wake), idle speed zones (no wake), noncombustion engine use zones, and the eventual phasing out of anchoring in the marine reserve zone. These measures would reduce the current level of disturbance, prevent some future injuries to seagrasses and coral reefs, and allow restoration of some submerged aquatic communities. Because of these beneficial effects, the selected alternative would not result in impairment.

Wetlands

Wetlands are found along the coast of the mainland and the fringes of the keys and are an important ecosystem. Wetlands provide natural filtration of waters as they enter the park and habitat for a variety of aquatic and terrestrial species, and provide protection from storm effects. Historically, the mainland coast of southern Florida was predominantly wetlands. Changes in land use and modifications to natural drainage patterns have dramatically reduced the amount of wetlands in the region. The wetlands in the park are predominately mangrove forest. The vegetation is a combination of buttonwood and red, white, and black mangroves.

Maintenance of some of the native coastal wetlands is necessary to fulfill the purposes for which the park was established and is key to the natural integrity of the park. Actions in the selected alternative include possible construction of a boardwalk and/or viewing platform on Convoy Point that would cause both short-term and long-term adverse impacts on the mangroves along the mainland shoreline of the park. These impacts would be localized and only expected to affect 2 acres or less of mangroves. The long-term impacts would be mitigated through sustainable design. Placement of the nature observation zone and the slow speed zone in the open water along portions of the mainland shoreline would give greater protection to mangrove shorelines. The idle speed zone on the bay side of Elliott Key would also protect the mangrove shorelines. This would have long-term, beneficial impacts. Because there would be only minor adverse impacts on wetlands, the selected alternative would not result in impairment.

Soundscape Management

The Park offers some of the best places to hear natural sounds, including the calls of wildlife and the melodies of wind and water that together form a rich natural resource that is important to the park's ecological communities. Today, these natural ambient sounds, which are sometimes referred to as natural quiet, are threatened as human-produced noises increasingly intrude into even the most remote corners of the park.

Natural soundscapes in remote areas of the park are necessary to fulfill the purposes for which the park was established, and are key to the natural integrity of the park. The actions in the selected alternative would have beneficial impacts on soundscapes because the slow speed zones (minimum wake), idle speed zone (no wake), and noncombustion engine use zones would reduce the level of noise currently caused by high-speed boat motors. Because of these beneficial effects, the selected alternative would not result in impairment.

Cultural Resource Topics

Archeological Resources

The Park's cultural resources are rich with examples of prehistoric life, wreckers' camps, homesteading and farming, the ruins of 20th Century estates, and the international maritime heritage that has shaped the history of southeast Florida, the Caribbean region, and the entire Western world.

Early prehistoric archeological sites (Paleoindian and Archaic Period) are rare in South Florida and none have been found to date in the park. Environmental conditions (frequent hurricanes, low island topography, and shallow soil horizons) are not conducive to long term survival of ephemeral archeological sites on the islands. In addition, the rise in sea levels undoubtedly flooded coastal sites in South Florida's lowland areas and shorelines that had been inhabited during the Paleoindian and first 5,500 years of the Archaic period. Thus, it is possible that Archaic period sites not in upland areas are now submerged within Biscayne Bay. Post-Archaic Glades Period sites are represented in the park, some of which are potentially eligible for listing in the National Register of Historic Places. Archeological evidence of the Glades periods includes ceramic and bone tool traditions and a variety of lithic tools and ornaments that indicate that the peoples living along the southeast Florida coast and keys had developed a thriving trade network. Several of these prehistoric sites in the park also show evidence of occupation during the European contact period. Later historic sites on the islands include homesteads

and farmsteads, as well as ruins of fish camps and lodges established by early Miami socialites and developers.

The park's most numerous category of archeological site are submerged shipwrecks and other maritime casualty sites. Identified shipwrecks span the decades between 1733 and 1969, but currently unidentified sites likely date much earlier. Biscayne's location on the northern end of the treacherous, yet highly traveled, Straits of Florida means that many a ship prematurely ended their voyage within what was to become the park's waters. These ships represent numerous colonial and post-colonial vessels of many nationalities and include military, merchant, and pleasure vessels. Their stories are entwined with both international history and local events that shaped the development of South Florida. Shipwreck sites and other material remains of maritime casualties are now preserved as submerged archeological sites in the park, and some are listed on the National Register of Historic Places.

Archeological resources are necessary to fulfill the purposes for which the park was established and are key to the cultural integrity of the park. The actions in the selected alternative would have no moderate to major adverse effects to archeological resources (no adverse effect) because increased management focus on archeological resources would result in more protection efforts and positive public stewardship. The establishment of a marine reserve zone would virtually eliminate the on-site generation of fishing-related marine debris and its associated impacts on submerged cultural resources, which would be a long-term beneficial impact. Because there would be no moderate to major adverse effects to archeological resources and no adverse effects, the selected alternative would not result in impairment.

Historic Structures

The Park's "Historic Resource Study" and subsequent National Register of Historic Places nominations have generated a List of Classified Structures. This list has identified 11 historic structures, including the offshore Fowey Rocks Lighthouse and 10 others that are contributing resources in the Boca Chita Key Historic District. The district's 10 structures, which represent typical resort architecture for the Miami area in the 1930s, include a lighthouse, chapel, picnic pavilion, garage/barn, engine house and cistern, bridge, stone walls, a canal, retaining walls, and concrete walkways. The Fowey Rocks Lighthouse is one of six offshore iron-framed lighthouses built upon the Florida Keys Reef track in second half of the 19th Century. It was lit in 1878 and continues to function today. In addition to structures, the park's List of Classified Structures includes three "ruins" that are managed as structures and members of the Jones Family National Historic District. The ruins of the Jones family home (built in 1912) and cistern (circa 1912) are located on Porgy Key and the remains of a Fordson Model F Tractor (1918) are at the farmstead on Totten Key.

Historic structures are necessary to fulfill the purposes for which the park was established and are key to the cultural integrity of the park. The actions in the selected alternative (rehabilitated, preserved, and adaptively reused structures) would result in impacts on historic structures and buildings that would be localized and long-term to permanent, and there would be no moderate to major adverse impacts. Because there would be no adverse effects on historic structures under Section 106, the selected alternative would not result in impairment.

Cultural Landscapes

The Park's "Historic Resource Study" (1998) evaluated the park's cultural resources within five historic contexts — aboriginal populations and European–American exploration (1513–1859); the wrecking industry (1513–1921); American settlement on the keys (1822–65); agriculture on the keys (1860–1926); and recreational development of Miami and Biscayne Bay (1896–1945). One cultural landscape, the Boca Chita Historic District, has been officially documented (Jaeger Co. 2010), and the potential remains for identification of additional cultural landscapes reflective of each of the historic contexts identified in the 1998 report, as well as for an overarching maritime cultural landscape."

Under the selected alternative, the existing and potential landscapes would continue to be surveyed, inventoried, and evaluated under National Register of Historic Places criteria, and the NPS would implement resource management policies that preserve the natural resource values and culturally significant character–defining patterns and features of listed, or determined eligible, landscapes. Some slight impacts from visitation could occur if visitation to cultural landscapes were to increase. Because of protective efforts, the selected alternative would not result in impairment.

SUMMARY

As described above, adverse impacts anticipated as a result of implementing the selected alternative on a resource or value whose conservation is necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or identified as significant in the park's general management plan or other relevant NPS planning documents, would not rise to levels that would constitute impairment.