Office of National Marine Sanctuaries
National Oceanic and Atmospheric Administration

Florida Keys National Marine Sanctuary: Restoration Blueprint

Final Management Plan

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U.S. Department of Commerce
Gina Raimondo, Secretary

National Oceanic and Atmospheric Administration
Richard W. Spinrad, Ph.D., Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator

National Ocean Service
Nicole LeBoeuf, Assistant Administrator

Office of National Marine Sanctuaries
John Armor, Director

Cover photos (left to right, from top): coral cover at Tortugas Ecological Reserve; recreational fishing; sand flats in the backcountry; American Shoal lighthouse; shipwreck of the City of Washington; recreational boating

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Table of Contents

Introduction

Background

Since the designation of Florida Keys National Marine Sanctuary (FKNMS) in 1990, NOAA has worked to understand and conserve its resources, facilitate and manage human access and use, and address impacts from human influence. These advances have been accomplished through implementation of sanctuary regulations and marine zones, non-regulatory action, and collaborative partnerships.

This final management plan for FKNMS was developed as part of a larger Restoration Blueprint process that also includes a final rulemaking and final environmental impact statement. This management plan and final rule serve to update the original regulations, including marine zones, that went into effect in 1997, and the 2007 management plan, which directs the sanctuary's non-regulatory management activities.

This final management plan includes comments and edits based on the Restoration Blueprint draft management plan published in 2019 and the revised draft management plan published with the notice of proposed rulemaking in 2022. This management plan replaces the 2007 FKNMS Revised Management Plan.[1] The plan focuses on understanding and improving the condition of sanctuary resources through reducing threats and addressing emerging issues. Management activities focus on targeted research, updated and adaptive management efforts, regulatory compliance, community involvement, and stewardship. FKNMS regulations, including marine zones, are included in a separate final rulemaking and can be found at 15 CFR Part 922 Subpart P (Final Rule).

In managing national marine sanctuaries, the Office of National Marine Sanctuaries (ONMS) provides comprehensive and coordinated management in ways that complement existing regulatory authorities and partnerships. NOAA regularly coordinates management actions with other federal agencies such as the U.S. Fish and Wildlife Service (USFWS), National Park Service (NPS), Department of Defense/U.S. Navy, U.S. Coast Guard (USCG), U.S. Environmental Protection Agency (EPA), and U.S. Army Corps of Engineers, among others. FKNMS is also cooperatively managed with the state of Florida and has several issue-specific cooperative management agreements with the Florida Department of Environmental Protection (DEP), Florida Fish and Wildlife Conservation Commission (FWC), and State Historic Preservation Office. Many activities in this management plan are heavily dependent upon cross-agency coordination including research, habitat restoration, water quality, enforcement, stewardship and engagement, and managing high intensity and conflicting uses in the sanctuary.

ONMS also regularly collaborates with partners as we provide the services and activities necessary to manage the national marine sanctuaries. In addition to federal appropriations, ONMS relies on partnerships and outside funding sources, such as grants and in-kind services, to assist in the implementation of the management plan. These partners include: federal, state, and local agencies; nonprofit organizations; and private institutions. Partnerships vary across

[1] https://floridakeys.noaa.gov/mgmtplans/2007.html

the goals, objectives, and individual activities within this management plan. A representative list of partners is included in Appendix II.

Finally, while this 2024 final management plan represents the full suite of activities needed to advance FKNMS management goals and objectives, implementation is dependent upon the available resources including funding, staff capacity, and partnership contribution. These and other factors for determining implementation of this revised draft management plan are further described in Appendix I.

Management Plan Review and Development

The National Marine Sanctuaries Act requires NOAA to review the management plans for all national marine sanctuaries (16 U.S.C. §1434(e)) to ensure each site properly conserves and protects its living and cultural resources. Management plans present goals, strategies, and actions to guide the development and prioritization of future budgets and management activities.

From 2012 through 2023, NOAA conducted a review of FKNMS regulations, marine zones, and management plan through an extensive interagency and public process. The review examined current issues and threats to sanctuary resources and the extent to which the existing 1997 regulations and 2007 FKNMS Revised Management Plan provided adequate resource protections. The review specifically evaluated existing and potential new regulatory and management actions to address increased threats to sanctuary resources from local, regional, and global impacts, as well as changing visitor numbers, use patterns, types, and recreational interests.

The review included the release of the 2019 draft environmental impact statement (EIS) for the Florida Keys National Marine Sanctuary: A Restoration Blueprint (Restoration Blueprint draft EIS 2019)[2] which evaluated the environmental consequences of four regulatory alternatives and included an updated draft management plan. NOAA accepted public comments on the draft EIS over a five month period and within that time held six public hearings and two public comment-focused Sanctuary Advisory Council meetings. A revised draft management plan was released for a final round of public comment with the Notice of Proposed Rulemaking in 2022. NOAA accepted public comments for a 100-day period and hosted four public hearings, one Sanctuary Advisory Council focused on public comment, and a final Sanctuary Advisory Council meeting focused on receiving advisory council comments and recommendations. Finally, at each stage of the process, NOAA has received comments from state and federal agency partners.

Input on the draft management plan as part of the 2019 public comment on the Restoration Blueprint draft EIS and the 2022 revised draft management plan generally asserted that sanctuary resources are experiencing increased impacts from local, regional, and global threats (such as climate change), as well as from increased numbers of overall users. Public comments primarily focused on the need to improve sanctuary resource conditions and to monitor and address impacts from climate change and changes to water quality, to continue and expand

[2] https://nmsfloridakeys.blob.core.windows.net/floridakeys-prod/media/blueprint/deis-fknms-restoration-blueprint.pdf

living and non-living resource protection, and to advance efforts to restore habitats and ecosystem function. Public comments also called for increased issue- and audience-specific education and outreach efforts; enhanced enforcement capacity; greater support for mooring buoys; monitoring and evaluating effectiveness of management actions; increased capacity to administer sanctuary programs; and more responsive and adaptive management to address emerging threats and the increasing number of people in the sanctuary. Informed by these public comments, ONMS identified a suite of priority management themes to guide FKNMS management actions, resource allocation decisions, and partnership development.

Priority Management Themes

While the objectives and activities in this management plan comprise a comprehensive body of work, the following six priority management themes highlight the issues of greatest need and opportunity for FKNMS management. Throughout the management plan, the specific activities that advance these priorities are tagged with an asterisk (*).

Management Effectiveness/Adaptive Management

ONMS uses a variety of management measures to address resource threats within FKNMS. Understanding the effectiveness of those strategies is necessary to ascertain how well we are achieving our mission. ONMS will work with partners to conduct monitoring to evaluate management measures, and then shift or revise management approaches to address areas or issues where current resource protection efforts are not meeting the desired goals.

A diver works on a coral tree nursery where corals grow on lines tethered to the seafloor. Photo: XL Catlin Seaview Survey

Water Quality

Restoring and protecting water quality is essential for the overall recovery and sustainability of natural resources in the Florida Keys, and requires both local and regional action, and coordinated and individual effort. ONMS, working with the Water Quality Protection Program and the South Florida Ecosystem Restoration Task Force, will continue to build upon its three decades of work to address regional water quality issues, with an understanding that Florida Keys water quality is inextricably linked to the greater South Florida watershed. ONMS will prioritize continued work with our partners and the community to further analyze the sources of water quality decline and develop and implement tangible solutions. ONMS will demonstrate commitment, action, and progress towards improving water quality in the Florida Keys.

Restoration

Critical natural resources in the Florida Keys have experienced significant declines in recent decades. Without active restoration to rebuild degraded resources, recovery is in question. Therefore, ONMS will work with partners to undertake ambitious restoration efforts to promote species and habitat recovery. This may include active interventions to augment the natural coral reef structure, habitat enhancement to support species life cycle needs, re-establishment of critical species (e.g., Caribbean crab), and other active interventions to increase success of restoration activities. The ultimate goal of these efforts is to allow the ecosystem to recover to a point where natural processes and communities function at a self-sustaining state.

Visitor Use Management

Recognizing that the number of visitors to the Florida Keys continues to rise, and high levels of use are impacting both natural resources and the visitor experience, ONMS will work to understand these impacts and develop strategies to address them, including the strategic use of marker and mooring buoys. Mooring buoys are an important management tool in the sanctuary, providing boaters the ability to moor their vessels safely and avoid damaging coral reefs and other important ecosystems. ONMS now maintains about 500 mooring buoys as part of an overall network of almost 800 buoys, which also includes boundary buoys that mark marine zones, shoreline marker buoys, and information buoys. The current system of maintaining buoys in the sanctuary is under review to address aging infrastructure while adapting to increased demand for marking newly protected areas. Additionally, ONMS must creatively explore new technologies and partnerships to augment the current system.

Enforcement

Enforcement is a critical tool in achieving resource protection through compliance with sanctuary regulations and other federal and state laws. Successful enforcement requires a coordinated effort and is conducted through cooperative partnerships with other agencies. ONMS will work with partners to enhance enforcement capacity to achieve visible resource protection benefits. ONMS is also committed to enhancing public knowledge, understanding, and compliance through establishing consistent regulations, where feasible, and targeted education and interpretation of those regulations.

Stewardship and Engagement

Protecting sanctuary resources requires partnership and trust within the community. Effective communication is essential, and includes relaying information about sanctuary resources, regulations, and existing management measures, as well as gathering input and being responsive to community concerns. ONMS will work with partners to educate and engage with the community, including interpretation and wide dissemination of sanctuary regulations and marine zones, with the ultimate goal of fostering individual stewardship ethics and developing a populace that is informed, invested, and inspired to contribute to the responsible use and protection of Florida Keys' resources.

Florida Keys National Marine Sanctuary

Final Management Plan 2024

Vision

Florida Keys National Marine Sanctuary conserves the resources of the sanctuary while also managing uses that are compatible with the goal of resource protection.

Mission

Florida Keys National Marine Sanctuary is a living laboratory for scientific research, enhancing our understanding of the environment and improving management decisions for optimal resource conservation while allowing for sustainable public use and enjoyment. The public is engaged and involved with a desire to protect and restore the sanctuary's resources for current and future generations.

GOAL 1: Improve our understanding of sanctuary resources and ecosystem services, and their value to the Florida Keys economy.

GOAL 2: Improve the condition of sanctuary resources and, where possible, restore ecosystem structure and function.

GOAL 3: Reduce threats to sanctuary resources and manage human uses and associated impacts.

GOAL 4: Increase awareness and support for FKNMS and its resources.

GOAL 5: Advance and support collaborative and coordinated management.

Goal 1: Improve our understanding of sanctuary resources and ecosystem services, and their value to the Florida Keys economy.

Molasses Reef frames a picture-perfect image of the Florida Keys ecosystem. Photo: XL Catlin Seaview Survey

Goal 1 seeks to advance understanding of sanctuary resources and ecosystem services and ensure the best available science is used to inform conservation-based management decisions. Efforts to monitor changing conditions, the threats affecting ecosystems, and the role of ecological, environmental, and socioeconomic factors influencing these changes provide essential information needed to protect and conserve sanctuary resources.

There is a long history of research and monitoring programs in the Florida Keys. Information from these programs has been presented in the 2011 FKNMS Condition Report, the Draft National Coral Reef Monitoring Program Assessment Report, and numerous other publications and reports. There is a need to evaluate and synthesize the findings from these programs, update these datasets with new information on recent impacts and associated changes to sanctuary resources and habitats, and direct future activities toward the key management needs of today. The intent of this goal is to evaluate this body of knowledge to: (1) continue to inform management decisions, (2) identify gaps in knowledge needed to understand effectiveness of existing management measures, and (3) direct future monitoring and research priorities to further improve understanding of sanctuary resources and ecosystem services to develop adaptive resource management strategies.

The objectives and activities in this goal focus on better understanding sanctuary resource status and the factors contributing to their decline, identifying gaps in this understanding, and prioritizing research to fill these gaps. This work also includes an emphasis on understanding the science of ecosystem function and mechanisms that facilitate natural resource recovery and investigating the effects of climate change on sanctuary resources to inform future research and management action. Much of the work conducted within this priority area is driven by the final

updated regulations, marine zones, and management plan updated through the Restoration Blueprint process, as well as key needs and activities identified in the comprehensive science plan (Activity 1.1.4). The activities outlined in this goal are not insignificant and will require advanced planning, time, and funds. FKNMS will collaborate and coordinate with partners to support our collective conservation goals while also not duplicating efforts.

One of the FKNMS priority management themes falls within this goal: Management Effectiveness/Adaptive Management. The specific activities that advance this priority are noted by an asterisk (*).

Objective 1.1: Assess the state of the science/research of sanctuary natural resources and habitats and direct future research to inform priority resource protection and management needs.

Activity 1.1.1: Host a Florida Keys ecosystem science symposium to compile and share priority monitoring and research findings.

***Activity 1.1.2:** Identify gaps and additional targeted research and monitoring that is needed to determine the effectiveness of existing management strategies and new regulatory and marine zoning changes, implemented as part of the 2024 Restoration Blueprint rulemaking, and consider the potential effects of climate change. Update the FKNMS Science Needs Assessment[3] documents as needed.

***Activity 1.1.3**: Develop and implement appropriate strategies for a zone-specific monitoring and research program to provide comparative information on the status of marine species and habitats, and observe patterns within and outside managed areas to determine the effectiveness of those management measures.

Activity 1.1.4: Develop a comprehensive science plan (the last such plan was completed in 2002). This plan will identify priority research and monitoring needs (including consideration of the potential impacts of climate change), and associated partners and other responsible parties to fill those gaps (e.g., direct agency [federal/state] or permitted work, see also the Science Needs Assessment documents referenced in Activity 1.1.2).

Activity 1.1.5: Establish a Sanctuary Advisory Council Research Advisory Working Group to provide recommendations on priority research needs and application of available science to conservation-based management, including adaptive management needs and opportunities. (This is distinct from the Water Quality Protection Program (WQPP) Technical Advisory Committee.)

Activity 1.1.6: Contribute to the development and expansion of an online data portal where monitoring and research data and outcomes can be compiled, mapped, synthesized, and queried. Existing efforts to create a unified data portal include Marine Biological Observation Network, WQPP monitoring, and National Coral Reef Ecosystem Monitoring Program.

[3] https://sanctuaries.noaa.gov/science/assessment/florida-keys/

Activity 1.1.7: Prepare a sanctuary condition report that describes current status and trends of sanctuary resources, to update the 2011 FKNMS Condition Report.

Objective 1.2: Enhance our understanding, management, and interpretation of sanctuary historical resources.

Activity 1.2.1: Identify significant historical resources for additional research and work with partners, using innovative techniques, to advance historical resource characterization.

Activity 1.2.2: Continue building the sanctuary historical resource inventory, including biological characterization of historical resource sites.

Activity 1.2.3: Undertake a maritime cultural landscape assessment to identify broad cultural and environmental influences that shaped and continue to shape the Florida Keys' ecology and communities to achieve a deeper understanding of the sanctuary. Efforts will include seeking a better understanding of Indigenous Peoples and cultures in the Florida Keys, through engagement with Indigenous Peoples.

Activity 1.2.4: Implement archaeological research permitting standards to enhance protection of historical resources and streamline permitting (see 15 CFR § 922.166).

***Activity 1.2.5**: Evaluate visitor access/use and impacts to historical resources and identify interventions to reduce resource conflicts and potential damage from improper use while maximizing visitor access. Coordinate with other management partners and stakeholders as appropriate.

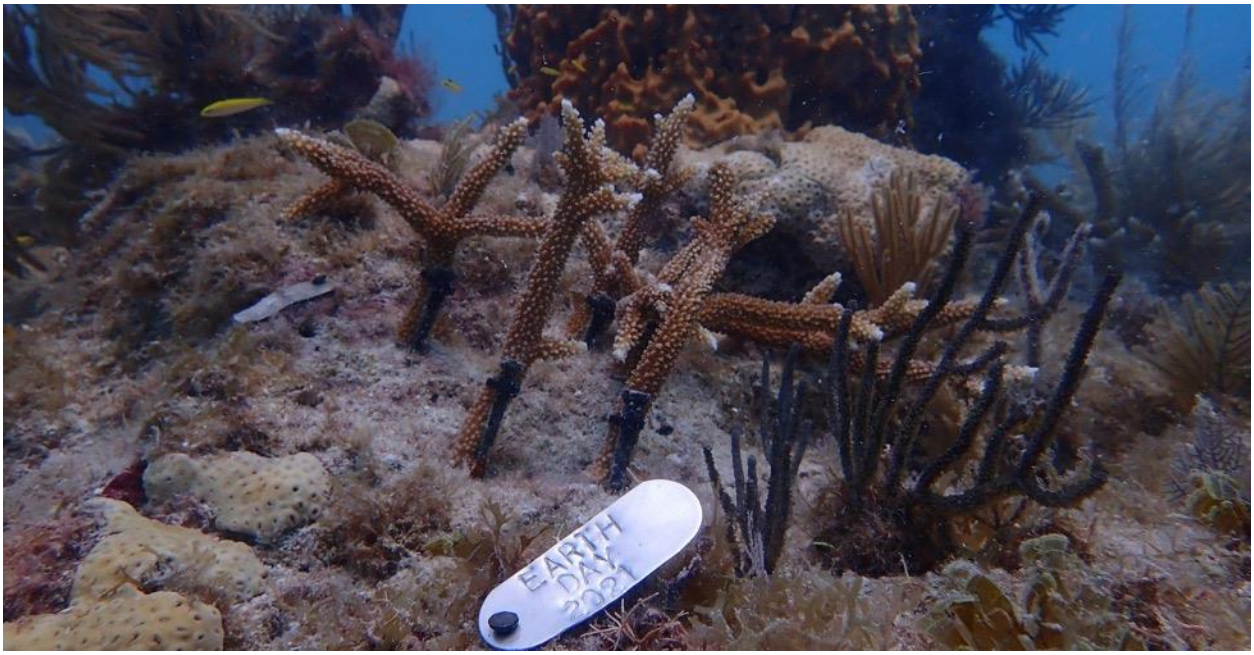
Activity 1.2.6: Pursue opportunities to disseminate historical resource information and interpret the sanctuary's maritime heritage through a variety of avenues to reach audiences locally, regionally, and nationally.

Objective 1.3: Identify and track socioeconomic value and ecosystem services provided by the sanctuary and its resources.

Activity 1.3.1: Update the socioeconomic valuation of the sanctuary and include a section on historical resources.

Activity 1.3.2: Use the updated socioeconomic valuation findings to communicate the value of the sanctuary and its resources to decision-makers and targeted user groups in the Florida Keys.

Goal 2: Improve the condition of sanctuary resources and, where possible, restore ecosystem structure and function.



Mote Marine Lab celebrated Earth Day 2021 by outplanting staghorn corals at Eastern Dry Rocks off Key West. A metal tag commemorates the occasion. Photo: Mote Marine Lab

Goal 2 focuses on the parameters assessed in the 2011 FKNMS Condition Report: water quality, habitat, and living marine resources. Activities related to the fourth parameter, historical resources, are included in Goal 1. In addition to the specific activities identified here, outputs from activities in other goals will also support action within this goal. For example, the development of a sanctuary science plan (see Goal 1, Objective 1.1, Activity 1.1.4) and actions in support of Goal 5: Collaborative and Coordinated Management, will directly support Goal 2.

The 2011 FKNMS Condition Report concluded that resources in the Florida Keys appear to be in fair to fair/poor condition, are generally either stable or in decline, and that emerging threats to sanctuary resources include invasive species, climate change, increasing coastal and visitor populations, and recreational use of the sanctuary. Since release of the 2011 condition report, sanctuary resources have been further impacted by Hurricane Irma, mass bleaching events, coral disease outbreak, seagrass die-off, the 2023 marine heat wave, and other localized and regional threats.

Building on the information gathered through Goal 1, the objectives and activities in this goal focus on partnership opportunities and new and innovative solutions to improve and restore sanctuary resource conditions. Activities in this goal also recognize the need to truly work in partnership with each entity bringing their expertise and respective authorities.

Two of the FKNMS priority management themes fall within this goal: Water Quality and Restoration. The specific activities that advance these priorities are noted by an asterisk (*).

Objective 2.1: Water quality: Demonstrate greater leadership in engaging with local and regional partners to collectively identify and address issues and implement solutions related to water quality.

***Activity 2.1.1**: Strengthen engagement with the WQPP, its partners, and the community to ensure that long-term water quality, associated habitat monitoring programs, and special studies are supported, maintained, and applied to management needs and decisions. This involves continued contribution to ongoing WQPP efforts to prioritize regional and local water quality issues and adapt to emerging needs, so that partnerships and resources can be more strategically leveraged to implement corrective actions at local and regional scales to achieve greater water quality improvements.

***Activity 2.1.2**: Strengthen engagement with the South Florida Ecosystem Restoration Task Force to ensure Florida Keys water quality, habitat, living marine resource conditions, and community interests are considered and integrated into regional restoration and management plans. Coordinate within NOAA to ensure appropriate representation in Task Force and Comprehensive Everglades Restoration Plan activities, including the South Florida Ecosystem Restoration Working Group and Science Coordination Group, Regional Coordination Teams and other advisory bodies, and Project Delivery Teams.

***Activity 2.1.3**: Identify additional water quality parameters that should be investigated (e.g., industrial discharge, metals, pesticides, endocrine disruptors, bacteria) to better understand enabling factors and stressors impacting sanctuary resources, identify and support implementation of cost-effective strategies to effectively mitigate these pollutants.

***Activity 2.1.4**: Work with the WQPP and relevant partners to evaluate existing water quality monitoring programs and recommend alterations to promote consistency with a unified coral reef water quality monitoring network, identify new or more cost-effective technologies and monitoring strategies, incorporate emerging monitoring needs, improve overall data analysis, and ensure data is effectively informing management decisions.

***Activity 2.1.5**: Evaluate and map recent and long-term water quality data sets to identify water quality improvements, hot spots, and spatial and temporal gaps in coverage.

***Activity 2.1.6**: Identify practical non-regulatory steps and solutions to improve water quality. Additional avenues for improving water quality include education and outreach, community engagement, partnerships, habitat restoration, and the use of emerging technologies.

***Activity 2.1.7**: Work with the WQPP and interested stakeholders to develop and implement a communication strategy to clearly and consistently communicate the importance of addressing water quality in the sanctuary, ecosystem and economic factors that are impacted, types of corrective actions that will be required to affect change in water quality, and highlights and accomplishments of the WQPP and its members/partners. This strategy would also include recommendations for new and creative funding streams for the WQPP and associated projects.

Objective 2.2: Develop habitat restoration or mitigation plans/activities where needed.

***Activity 2.2.1**: Participate in and facilitate recovery efforts for threatened coral species. Specifically, work with National Marine Fisheries Service (NMFS) Office of Protected Resources and other partners to implement actions identified in the Acropora Recovery Plan and identify options and best practices for restoration of other Endangered Species Act listed species.

***Activity 2.2.2**: Work with research and management partners to advance coral disease intervention research and implement activities at high priority sites to reduce impacts, address enabling conditions, reduce disease spread, enhance the survival of priority corals, and rehabilitate coral reefs and species damaged by coral disease.

Activity 2.2.3: Continue to support efforts led by the Florida Reef Resilience Program to implement monitoring, research, restoration, and outreach activities identified in the 2021-2026 Resilience Action Plan for Florida's Coral Reefs to address coral bleaching, disease, ocean acidification, and other climate-related stressors.

***Activity 2.2.4**: Work with partners to identify and assess factors that affect the vulnerability and resilience of seagrass habitats to chronic and acute impacts and emerging threats, and develop and implement recommendations for restoring degraded and damaged seagrass habitats. To support this activity, evaluate and update the FKNMS Damage Assessment and Restoration Program including methodologies, equipment, implementation, partnership opportunities, and effectiveness.

***Activity 2.2.5**: Expand efforts to monitor changes to hard-bottom habitats. Evaluate the ecological dynamics, functional significance, and economic importance of these habitats (e.g., WQPP Special Studies project to facilitate sponge restoration).

***Activity 2.2.6**: Support and facilitate the development, testing and scaling up of novel ecological restoration approaches to facilitate recovery and enhance resilience and sustainability of ecosystem components. Focal areas include improving habitat quality and condition; enhancing recruitment and survival of stony corals, sponges, anemones, and other ecologically relevant benthic invertebrates; rebuilding degraded populations of species; restoring ecosystem structure and function; and exploring ways to augment the natural habitat structure to further support natural recovery.

***Activity 2.2.7**: Use the newly created restoration permit category to facilitate restoration and associated requirements (e.g., monitoring and reporting) to further sanctuary management goals (see 15 CFR § 922.166).

***Activity 2.2.8**: Develop a sanctuary habitat restoration plan. The restoration plan would include restoration goals, priority restoration needs, nursery and restoration site selection criteria; species type and associated propagation and outplanting strategies; research and monitoring strategies; compilation, evaluation, and archiving of datasets and information; and expected outputs, potential midcourse corrections, and other adaptive management measures and access options, including the criteria for creating emergency or temporary restoration zones. This restoration plan would include the range of habitats and representative species

found within the sanctuary. Consider how the Resist-Accept-Direct framework[4] can be incorporated into sanctuary restoration approaches and the potential role habitat restoration site selection can play in protecting human communities from coastal flood risks. This sanctuary habitat restoration plan will be developed in coordination with other management and conservation partners.

***Activity 2.2.9**: Provide leadership for and support implementation of *Mission Iconic Reefs*. This involves engaging with partners to advance the science and practice of coral reef ecosystem restoration; increasing the scale and success of restoration; enhancing coordination between researchers, field practitioners, and managers; facilitating and encouraging the use of FKNMS as a field laboratory for research, testing of new methodologies and species, and demonstration projects; improving coordination and community and stakeholder involvement in maintenance, monitoring, and other stewardship activities; promoting a scaled-up production of corals, herbivores, and other organisms; and scaling up the outplanting of nursery-reared corals. This initiative, while focused in the Florida Keys, will be coordinated with and consider other regional activities including Florida's Coral Reef Restoration and Recovery Initiative.

Objective 2.3: Living marine resources: Improve the condition and diversity of natural biological communities.

***Activity 2.3.1**: Identify opportunities to further partner with NMFS, South Atlantic Fishery Management Council, Gulf of Mexico Fishery Management Council, and FWC on coordinated management and innovative research on fish and invertebrate populations, including ecosystem-based management approaches, within the sanctuary. Capitalize on each party's expertise, authorities, jurisdiction, and stakeholder engagement to advance this effort without duplicating effort.

Activity 2.3.2: Continue to work with fishery and research partners to advance understanding of fish aggregation sites, connectivity between sites and habitat types, and ecological and habitat features that support ecosystem productivity. As needed based on this evaluation, recommend and implement management measures that may better protect these unique and critical aggregations.

[4] The Resist-Accept-Direct framework provides options that decision makers can consider when responding to ecosystems facing the potential for rapid, irreversible ecological change, including from climate change. https://www.nps.gov/subjects/climatechange/resistacceptdirect.htm

Goal 3: Reduce threats to sanctuary resources and manage human uses and associated impacts.

Florida Keys National Marine Sanctuary features more than 500 mooring buoys that allow boaters to visit Keys coral reefs without dropping anchor. Photo: David Ruck/NOAA

ONMS uses a multi-faceted approach to comprehensively address the variety of impacts, pressures, and threats to the Florida Keys marine ecosystem. It is only through this inclusive approach that the complex problems facing the sanctuary can be adequately addressed. The objectives and activities in Goal 3 are focused on managing and facilitating human uses of the sanctuary that are consistent with the primary objective of sanctuary resource protection.

The tools used are wide ranging and include both regulatory and non-regulatory approaches. Updated regulatory approaches promulgated through the companion rulemaking to this management plan are codified in the regulations (15 CFR 922 Subpart P). These include sanctuary-wide regulations, marine zones and specific zone regulations, and permitting regulations to allow certain, otherwise prohibited activities that further sanctuary management goals to take place under carefully controlled circumstances. Enforcement of sanctuary regulations is critical to Goal 3. Non-regulatory approaches include: the use of mooring buoys; development and implementation of response plans; voluntary certification programs, including the Blue Star Dive Operators and Bluestar Fishing Guide Operators; and others highlighted below.

Two of the FKNMS priority management themes fall within this goal: Visitor Use Management and Enforcement. The specific activities that advance these priorities are noted by an asterisk (*).

Objective 3.1: Identify and monitor patterns of human uses and potential impacts of those uses, including existing and emerging threats.

***Activity 3.1.1**: Evaluate spatial patterns of different types of human uses within different habitats, characterize impacts associated with user groups, and evaluate effectiveness of existing measures to minimize those impacts. As needed, based on this evaluation and in collaboration with cooperative management partners and stakeholders, identify interventions to reduce and address concentrated uses and potential adverse impacts to sanctuary resources, including the potential to establish limited use areas.

***Activity 3.1.2:** Evaluate how the large vessel mooring buoy and no anchoring in SPA regulations work to address concentrated uses and reduce adverse impacts to sanctuary resources. Based on this evaluation, consider if changes are needed and/or where similar regulations and management approaches may be useful to further manage human uses and protect sensitive habitats (See Activity 3.3.2 for activities related to the mooring buoy evaluation and placement).

Objective 3.2: Reduce adverse impacts to key marine species and habitats.

***Activity 3.2.1**: As unforeseen threats arise and require action to manage the scope of or lessen their impact (e.g., storm damage, disease spread), implement immediate action to preserve sanctuary resources while examining a longer-term adaptive management approach. Any such action would follow the criteria and procedures of the temporary regulation for emergency and adaptive management (see 15 CFR § 922.165 for details).

***Activity 3.2.2**: Develop or update response plans for existing and/or emerging threats. ONMS staff will work with partner agencies to identify priority response plan needs, and collaboratively develop plans that articulate respective agency and partner authorities, roles, coordination, and funding mechanisms to support these efforts. Example topics include marine debris, derelict vessels, HAZMAT/pollution releases, invasive species, coral bleaching and disease events, fish kills, and others.

Activity 3.2.3: Assess the scope, scale, level of activity, and potential impact of live rock aquaculture activities. Develop agreements with NMFS and Florida Department of Agricultural Services to ensure permitted live rock aquaculture activities are aligned with sanctuary management goals and do not impact sanctuary resources, including examining agency responsibilities for permitting this activity in the sanctuary.

***Activity 3.2.4**: Work with partners to develop best management practices to mitigate habitat impacts, bycatch, and other stressors associated with fishing gear used within the sanctuary (e.g., evaluate recommendations from the Florida Marine Debris Reduction Plan to reduce the number of lost and derelict traps).

Activity 3.2.5: In coordination with NMFS, FWC, and the South Atlantic Fishery Management Council and Gulf of Mexico Fishery Management Council, review and evaluate fishing gear used within the sanctuary. Develop a transparent process by which new or modified fishing activities, such as those that reduce impacts to sanctuary resources, and other relevant changes to fisheries management will be evaluated prior to implementation within the sanctuary. This activity

directly relates to the definition and associated compiled list for traditional fishing within the sanctuary (see 15 CFR § 922.162 and the 2024 final EIS respectively).

Objective 3.3: Facilitate and manage human use, ensuring use is compatible with sanctuary resource protection goals.

***Activity 3.3.1:** In coordination with NMFS, USCG, USFWS, NPS, FWC, and DEP review and evaluate existing cooperative agreements and training programs to increase capacity and improve the effectiveness of enforcement activities in the sanctuary. Evaluate and support the implementation of technology (e.g., automatic identification system and remote surveillance) to enhance enforcement capabilities. Working with enforcement partners at NOAA and FWC, develop a strategy to identify and obtain additional investments for enforcement capacity and technologies.

***Activity 3.3.2**: Evaluate the effectiveness of and, as needed, update the placement and number of marker, mooring, channel, and information buoys, including large vessel mooring buoys. In particular, explore innovative partnerships and funding streams to install and maintain the marker and mooring buoy system and identify additional technological options instead of marker buoys (e.g., electronic charts integrated into GPS, virtual aids to navigation, and smart buoys) for alerting the public to marine zone locations and regulations. Engage management partners including USFWS, FWC, DEP, county, and municipalities, among others, to effectively and efficiently implement this activity.

Activity 3.3.3: Address the threat of derelict vessels by working with agency and local municipal partners to support ongoing efforts and contribute additional expertise, such as the Florida Marine Debris Reduction Guidance Plan, Monroe County derelict vessel removal and pilot vessel turn-in program, and others. This activity supports the regulations specific to at-risk vessels (see 15 CFR § 922.163(a)(5)).

Activity 3.3.4: Work with the towing and salvage industry to develop a suite of best practices to ensure vessel towing and salvage do not result in additional impacts to sanctuary resources. Assess and define which towing and salvage operations may require a sanctuary general permit, and communicate that to the industry and management partners who also contract for vessel removal services.

Activity 3.3.5: Strengthen interagency collaboration in permitting to reduce administrative duplication while avoiding and minimizing resource impacts to the greatest extent possible. This includes working with partner agencies to develop programmatic consultations to increase efficiency, evaluating cumulative impacts of certain permitted activities (e.g., fireworks, nearshore construction, and research) on sanctuary resources, and modifying permitting procedures as necessary to reduce those and other impacts.

***Activity 3.3.6**: Maintain, enhance, and, if applicable, expand FKNMS Blue Star programs to continue to promote responsible and sustainable use of the sanctuary and reduce impact of certain recreational activities (e.g., fishing and diving) on sanctuary resources.

***Activity 3.3.7**: Evaluate and monitor effects of artificial habitats and use patterns on sanctuary resources, including impacts artificial habitats may have on fish and invertebrate

populations, the extent to which the spread of invasive species has been facilitated by artificial habitats, and compliance with existing artificial habitat permits. This would apply to existing and any future proposed artificial habitat proposals.

Activity 3.3.8: Develop best practices for the use of artificial substrates in restoration. As applicable, based on the evaluation of these factors, develop ONMS specific criteria and requirements for the purposes, placement, monitoring, and evaluation of artificial habitats in the sanctuary. This activity is related to the habitat restoration activities in Goal 2 (see Activities 2.2.6, 2.2.7, 2.2.8, and 2.2.9).

Goal 4: Increase awareness and stewardship of FKNMS.

Many reefs in the Florida Keys are found in shallow waters that are accessible by snorkeling. Photo: Matt McIntosh/NOAA

Communication and education underpin all of the other goals and objectives and, as such, will be integrated across all FKNMS management. Communication and education areas of focus include media, outreach for education, informal education and interpretation, community/constituent engagement, and volunteer coordination as outlined below. Communication and education efforts must be strategic, coordinated, and focused. To that end, the overarching priority is to implement the sanctuary's Media Outreach Volunteer and Education Team Strategic Plan that will inform more specific priorities within each objective.

One of the FKNMS priority management themes falls within this goal: Stewardship and Engagement. The specific activities that advance this priority are noted by an asterisk (*).

Objective 4.1: Implement communication, interpretation, and education programming to achieve higher public awareness, understanding, sustainable use, and appreciation of FKNMS.

***Activity 4.1.1:** Develop new and adapt existing products and programs to incorporate sanctuary regulations into interpretive messaging, promote protection and responsible use, and address key threats to sanctuary resources. Work with partners to enhance the reach and distribution of these materials and messages.

***Activity 4.1.2**: Develop and implement an operations plan for Florida Keys Eco-Discovery Center that includes educational and interpretive programming and evaluation metrics.

***Activity 4.1.3**: Promote best practices for engaging with sanctuary resources to users of the sanctuary, such as wildlife viewing guidelines, diving/snorkeling/fishing etiquette, maritime heritage viewing, fish cleaning, and others.

***Activity 4.1.4**: Adapt programs and products to ensure they are accessible and to reach evolving demographics and diverse user groups.

Objective 4.2: Maintain and enhance community-based and partner engagement to improve collaborative and coordinated management in order to achieve the sanctuary's vision.

***Activity 4.2.1**: Continue support for the Sanctuary Advisory Council, including working with the chair and vice chair to develop an annual work plan that aligns with and supports the FKNMS management plan and ONMS strategic plan.

***Activity 4.2.2**: Enhance the volunteer program. Recruit volunteers to support existing operations and programs while developing additional opportunities for involvement to achieve the objectives and support the activities outlined in this management plan.

***Activity 4.2.3**: Strengthen existing and explore new partnership opportunities, including non-governmental conservation organizations, civic groups, and trade and business organizations, to further promote understanding and responsible use of sanctuary resources and to achieve objectives and support activities outlined in this management plan.

***Activity 4.2.4**: Promote local citizen science programs such as BleachWatch and SEAFAN, and work with partners to refine these programs to support resource protection needs.

***Activity 4.2.5:** Coordinate programs that invite community participation in stewardship (i.e., Goal: Clean Seas Florida Keys) and meet FKNMS resource protection needs by mitigating threats to sanctuary resources.

Goal 5: Advance and support collaborative and coordinated management.

Florida Keys National Marine Sanctuary has teams positioned in the Upper and Lower Keys to maintain the expansive network of buoys, which include zone marker and informational buoys, in addition to moorings. Photo: Benjamin D'Avanzo/NOAA

Florida Keys National Marine Sanctuary is managed in a partnership between NOAA, the state of Florida, and USFWS. Cooperative management and partnership has and continues to be at the core of how the sanctuary conducts its operations and programs. Active management becomes ever more essential given shifting environmental conditions and threats, enhanced research interest and effort, and increased user activity across all sectors, which is coupled with increased agency roles and responsibilities and shifts in available fiscal and human capital resources. A focus on strengthened and enhanced engagement with partners will be integrated in all aspects of operations as ONMS strives to most efficiently and effectively implement its management plan, regulations, and marine zoning scheme.

While the activities outlined in Goal 5 are largely internal to the sanctuary staff and/or in coordination with our cooperative management partners, they are included here to clearly articulate the focus and intent of this goal and associated objectives.

Objective 5.1: Improve operational capabilities, efficiency, and effectiveness including maintaining and acquiring the infrastructure required to accomplish the mission and goals specified in ONMS regulations and management plan.

Activity 5.1.1: Continually evaluate current staff and staff portfolios and restructure or hire as needed, as funding allows, to best address updated management plan activities and emerging sanctuary resource issues.

Activity 5.1.2: Assess the need for updated facilities and infrastructure, including potential partnership with other state and federal entities and develop an FKNMS infrastructure plan to meet current and future needs.

Objective 5.2: Annually develop operating plans that articulate how resources would be distributed to achieve goals and objectives, and conduct ongoing effectiveness evaluations toward meeting regulatory requirements and management plan objectives.

Activity 5.2.1: Formulate an annual operating plan to meet the objectives of ONMS regulations, management plan, and annual budget allocation specific to FKNMS. This could include evaluation of partner activities and associated resource capacity and funding streams (e.g., cooperative management partners, Water Quality Protection Program, research and non-governmental partners, among others).

Activity 5.2.2: Evaluate annual operating plan effectiveness toward meeting program objectives and seek engagement from the Sanctuary Advisory Council and the stakeholders they represent.

Objective 5.3: Maintain and strengthen cooperative management with our federal, state, and local partners to advance shared resource management priorities.

Activity 5.3.1: Conduct periodic reviews and evaluate the effectiveness of current cooperative management agreements and practices. Based on the results of that evaluation, work with agency partners to streamline and modernize existing agreements or create new agreements, if warranted, to best meet shared resource protection and management goals. Monitor and evaluate implementation of any revised/new agreements as defined in those protocols.

Activity 5.3.2: Develop a cooperative management annual operating plan and/or framework with federal and state management partners. This plan would facilitate:

- Coordination of cooperative management agency roles, activities, and contribution to shared sanctuary resource management priorities;
- Information and resource sharing to address priority research and threat reduction efforts (e.g., ongoing coral disease event and marine zone and living marine resources research and monitoring);
- Strategic efforts of the WQPP (with DEP and EPA);

- Enhancement of enforcement of sanctuary regulations (with FWC, NMFS, USCG, USFWS, and NPS);
- Coordination among other regional marine and natural resource management entities (e.g., NPS, state parks and aquatic preserves, and South Florida Water Management District); and
- Exploration of opportunities to further partner with NMFS, South Atlantic Fishery Management Council, Gulf of Mexico Fishery Management Council, and FWC on coordinated and innovative research and management of fish and invertebrate populations within the sanctuary (e.g., evaluation of the Joint Spiny Lobster Fishery Management Plan Amendment 11 areas closed to lobster trap fishing).

Activity 5.3.3: Work with Florida Division of Historical Resources to implement a National Historic Preservation Act (NHPA) Section 106 programmatic agreement[5] to meet NOAA's responsibilities under the NHPA for FKNMS operations, management, and permitting. Where needed, consult with interested federally-recognized tribes before issuance of archaeological research permits and on all undertakings with the potential to affect historic properties pursuant to Section 106 of the NHPA.

Activity 5.3.4: Continue to work with the Department of Defense through local partners at Naval Air Station Key West to facilitate mission-critical defense activities in the sanctuary, including reviewing and updating new or changing activities that may warrant exemption from FKNMS regulations (see Appendix F of Volume II of the final EIS).

Activity 5.3.5: Strengthen partnerships and coordination with Monroe County and the five individual Florida Keys municipalities to further sanctuary resource protection through the individual mandates and authorities of those jurisdictions.

[5] A draft programmatic agreement was released for public comment as part of the 2019 draft EIS process. NOAA and the Florida Division of Historical Resources anticipate releasing a final agreement with the final environmental impact statement and final management plan, forthcoming.

Appendix A: Implementation Factors: Funding, Capacity, and Level of Effort

In addition to federal appropriation, NOAA often receives support to complete our mission through external funding for collaborations with various agencies, partnerships with other organizations, and in-kind or volunteer-based labor and supplies. Most of the ONMS appropriation covers non-discretionary activities, such as labor, office rent, and utilities. The remainder is applied to discretionary activities, with vessel and facility maintenance representing the majority. Many of the activities within this management plan will depend on the availability of appropriate staff and resources for implementation, as well as external funding and partnerships. How discretionary funds and resources could be allocated is described below.

Prioritization and Implementation

While this revised management plan represents the full body of work needed to advance the sanctuary goals and objectives, prioritization of activities to implementation is necessary. The availability of funding and staff resources is limited, therefore ONMS is using the following factors to prioritize focus and effort.

Cost and level of effort determine the resources needed to execute a particular objective or activity and therefore are the first consideration for what the sanctuary can accomplish. Specifically, the following will be evaluated:

> **Cost:** The availability of agency appropriation, commitments of external funding sources, partnerships, and/or in-kind support.
>
> **Level of Effort**: The ability to implement, with existing staff capacity and partnerships, or if additional staff capacity and partnership support is needed.

Following consideration of the resources needed to implement a particular objective or activity, the sanctuary will use the following five factors to further discern which specific objective and activities to implement and over what time-frame:

> **Importance:** The level of urgency for each activity.
>
> **Impact:** The likelihood that the activity would positively impact the health of sanctuary resources and/or the well-being of sanctuary users.
>
> **Feasibility:** The ability to effectively implement the activity based on support from relevant agencies, public audiences, and ONMS.
>
> **Requirements:** Some activities are legal requirements for NOAA under a funded statute or regulation, or may be subject to court judgment or settlement agreement.

Priority Theme: Directly meets or is a prerequisite for, or enables an activity, of one of the six overarching ONMS priorities for FKNMS.

Appendix B: Representative List of Sanctuary Partnership Agencies and Organizations

State Agencies: Florida Department of Agricultural and Consumer Services, Florida Department of Economic Opportunity, Florida Department of Environmental Protection, Florida Fish and Wildlife Conservation Commission, Florida Department of State: particularly the Division of Historical Resources, and South Florida Water Management District

Federal Agencies: U.S. Army Corps of Engineers, U.S. Coast Guard, Department of Defense (U.S. Naval Air Station Key West), U.S. Department of the Interior (National Park Service, U.S. Fish and Wildlife Service, and U.S. Geological Survey), and U.S. Environmental Protection Agency

Regional and Local Government: Monroe County, Florida Keys municipalities, and Tourism Development Council

Regional and Local Organizations and Associations: Blue Star dive operators and fishing guides, fishing associations and guiding organizations (e.g., American Sportfishing Association, Coastal Conservation Association, Bonefish Tarpon Trust, Key West Charter Boat Association, Florida Keys Commercial Fishermen's Association, Lower Keys Guides Association, Islamorada Fishing Guides Association, and others), marine towing and salvage operators, and National Marine Manufacturers Association

Non-Governmental: Coral Restoration Foundation, Fish and Wildlife Foundation of Florida, Florida Public Archaeological Network, I.CARE, National Audubon Society, National Fish and Wildlife Foundation, National Marine Sanctuary Foundation, National Parks Conservation Association, Plant A Million Corals, Reef Renewal, Reef Environmental Education Foundation, Reef Relief, Boy Scouts of America Seabase, and The Nature Conservancy,

Universities, Research Institutions, and Marine Laboratories: College of the Florida Keys, Florida Atlantic University Harbor Branch Oceanographic Institute, Florida International University, Florida Sea Grant, Indiana University, Keys Marine Laboratory, Mote Marine Laboratory, University of Miami Rosenstiel School of Marine and Atmospheric Science, and University of Florida

Key internal NOAA Partners: National Marine Fisheries Service, including the Southeast Regional Office and Southeast Fishery Science Center, Office of Law Enforcement, Office of Protected Resources, Office of Habitat Conservation, Restoration Center, and Integrated Ecosystem Assessment Program; the Gulf of Mexico Fishery Management Council and South Atlantic Fishery Management Council; Oceanic and Atmospheric Research particularly the Atlantic Oceanographic and Meteorological Laboratory; Coral Reef Conservation Program; National Weather Service; Office of Marine and Aviation Operations; and other National Ocean Service offices including National Centers for Coastal and Ocean Science and Integrated Ocean Observing System Program, Office of Coast Survey, and Office for Coastal Management

Appendix C: List of Acronyms

CFR	Code of Federal Regulations
DEP	Florida Department of Environmental Protection
DoD	Department of Defense
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FKNMS	Florida Keys National Marine Sanctuary
FWC	Florida Fish and Wildlife Conservation Commission
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
ONMS	Office of National Marine Sanctuaries
USC	United States Code
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
WQQP	Water Quality Protection Program

Appendix D:
Terms of Designation for the Florida Keys National Marine Sanctuary

Article I. Designation and Effect

On November 16, 1990, the Florida Keys National Marine Sanctuary and Protection Act (FKNMSPA), Pub. L. 101–605 (16 U.S.C. 1433 note), became law. That Act designated an area of waters and submerged lands, including the living and nonliving resources within those waters, as described therein, as the Florida Keys National Marine Sanctuary (sanctuary). The FKNMSPA specifies that the sanctuary, is designated . . . under title III of the Marine Protection, Research, and Sanctuaries Act of 1972 (16 U.S.C. 1431 et seq.). The Sanctuary shall be managed and regulations enforced under all applicable provisions of such title III as if the Sanctuary had been designated under such title. FKNMSA Sec. 5(a). In 2001, pursuant to the procedures outlined in section 304 of the NMSA, 16 U.S.C. 1434, the boundary of the sanctuary was expanded to include important coral reefs and other resources in two areas west of the Dry Tortugas National Park, including Sherwood Forest and Riley's Hump. In 2024, the boundary of the sanctuary was further expanded to include areas: (a) north of the existing northern extent of the sanctuary, offshore of Miami-Dade County, to align with the Area To Be Avoided, (b) seaward of the existing southern boundary of the sanctuary to align with the ATBA, (c) at the far western end of the existing sanctuary boundary, to extend by approximately one mile westward and encompass the outer boundaries of the Tortugas South Conservation Area (formerly the Tortugas South Ecological Reserve) and square off the sanctuary boundary in its northwestern corner.

Section 304 of the NMSA, 16 U.S.C. 1434, authorizes the Secretary of Commerce to issue such regulations as are necessary and reasonable to implement the designation, including managing and protecting the conservation, recreational, ecological, historical, scientific, educational, cultural, archaeological or aesthetic resources and qualities of a national marine sanctuary. Section 1 of Article IV of the Terms of Designation lists activities of the type that are presently being regulated or may have to be regulated in the future in order to protect sanctuary resources and qualities. Listing in section 1 does not mean that a type of activity will be regulated in the future; however, if a type of activity is not listed, it may not be regulated, except on an emergency basis, unless section 1 is amended, following the procedures for designation of a sanctuary set forth in paragraphs (a) and (b) of section 304 of the NMSA, to include the type of activity.

Article II. Description of the Area

The Florida Keys National Marine Sanctuary boundary encompasses a total of approximately 3,427 square nautical miles (4,539 square statute miles) of coastal, ocean, and Gulf of Mexico waters, and the submerged lands thereunder, surrounding the Florida Keys in south Florida. The northernmost point of the sanctuary lies just east of Miami and Key Biscayne. The contiguous area boundary on the Atlantic Ocean side of the Florida Keys runs south from just north of Biscayne National Park generally curving in a southwesterly direction along the Florida Keys archipelago until southwest of the Dry Tortugas and Loggerhead Key. The contiguous area boundary on the Gulf of Mexico side of the Florida Keys continues from this southwestern point

to the north approximately 32 miles until it reaches a point northwest of Loggerhead Key and the Dry Tortugas. The boundary then continues east to approximately 8 miles north of Cottrell Key, and then from there it continues generally to the northeast to just north of Sprigger Bank. The boundary then generally approximates the southeastern Everglades National Park boundary until it continues along the western shore of Manatee Bay, Barnes Sound, and Card Sound. The boundary then generally approximates the southern boundary of Biscayne National Park and continues to do so north along the park's eastern boundary until it reaches the sanctuary's northeastern most point.

The landward boundary of the contiguous sanctuary area is the shoreline as defined by the mean high-water line. The Dry Tortugas National Park is not included within the sanctuary and the inner sanctuary boundary in this location is coterminous with this national park boundary. The sanctuary boundary encompasses the entire Florida coral reef tract, all of the mangrove islands of the Florida Keys, and some of the seagrass meadows of the Florida Keys. The precise boundary of the sanctuary is set forth at the end of this Designation Document.

Article III. Characteristics of the Area That Give it Particular Value

The Florida Keys extend approximately 223 miles southwest from the southern tip of the Florida peninsula. Adjacent to the Florida Keys land mass are located spectacular unique, nationally significant marine environments, including seagrass meadows, mangrove islands, and extensive living coral reefs. These marine environments support rich biological communities possessing extensive conservation, recreational, commercial, ecological, historical, research, educational, and aesthetic values which give this area special national significance. These environments are the marine equivalent of tropical rain forests in that they support high levels of biodiversity, are fragile and easily susceptible to damage from human activities, and possess high value to humans if properly conserved. These marine environments are subject to damage and loss of their ecological integrity from a variety of sources of disturbance.

The Florida Keys are a limestone island archipelago. The Keys are located at the southern edge of the Florida Plateau, a large carbonate platform made of a depth of up to 7000 meters of marine sediments, which have been accumulating for 150 million years and which have been structurally modified by subsidence and sea level fluctuation. The Keys region is generally divided into five distinct areas: the Florida reef tract, one of the world's largest coral reef tracts and the only barrier reef in the United States; Florida Bay, a large, shallow seagrass-dominated estuary and world-famous game fishing region that sits at the interface between the Florida Everglades and the Florida Reef Tract; the Southwest Continental Shelf; the Straits of Florida; and the Keys themselves.

The sanctuary contains one of North America's most diverse assemblages of terrestrial, estuarine, and marine fauna and flora. In addition to the Florida reef tract, the sanctuary includes thousands of patch reefs, various hardbottom habitats, mangrove fringed shorelines and mangrove islands, and a substantial portion of one of the world's largest seagrass communities that covers 3.6 million acres of the nearshore marine environment in south Florida. These diverse habitats provide shelter and food for thousands of species of marine plants and animals, including more than 50 species of animals identified under Federal or State law as endangered or threatened. The Keys were at one time a major seafaring center for

European and American trade routes to the Caribbean, and submerged cultural and historic resources (i.e., shipwrecks) abound in the surrounding waters. In addition, the sanctuary contains substantial archaeological resources of pre-European cultures.

The uniqueness of the marine environment draws multitudes of visitors to the Keys. The major industry in the Florida Keys is tourism, including activities related to the Keys' marine resources, such as dive shops, charter fishing and dive boats and marinas, as well as hotels and restaurants. The abundance of the resources also supports a large commercial fishing employment sector.

The number of visitors to the Keys grows each year, with a concomitant increase in the number of residents, homes, jobs, and businesses. As population grows and the Keys accommodate ever-increasing resource use pressures, the quality and quantity of sanctuary resources are increasingly threatened. These pressures require coordinated and comprehensive monitoring and researching of the Florida Keys' region.

Article IV. Scope of Regulations

Section 1. Activities Subject to Regulation

The following activities are subject to regulation under the NMSA, either throughout the entire sanctuary or within identified portions of it or, as indicated, in areas beyond the boundary of the sanctuary, to the extent necessary and reasonable. Such regulation may include prohibitions to ensure the protection and management of the conservation, recreational, ecological, historical, scientific, educational, cultural, archaeological or aesthetic resources and qualities of the area (e.g., 15 CFR 922.163). Because an activity is listed here does not mean that such activity is being or will be regulated. Listing an activity here means that the Secretary of Commerce can regulate the activity in accordance with all applicable laws without going through the designation procedures required by paragraphs (a) and (b) of section 304 of the NMSA, 16 U.S.C. 1434(a) and (b). Further, no regulation issued under the authority of the NMSA may take effect in Florida State waters within the sanctuary if the Governor of the State of Florida certifies to the Secretary of Commerce that such regulation is unacceptable within the forty-five day review period specified in NMSA.

Activities Subject to Regulation:

1. Mineral or hydrocarbon exploration, development, or production;
2. Destroying, causing the loss of, or injuring coral or live rock or attempting to do so;
3. Altering or placing any structure, object, or other material on the seabed, except as authorized by appropriate permits or as part of lawful fishing;
4. Discharging or depositing any material or discharging or depositing any material beyond the sanctuary that then enters the sanctuary and injures a sanctuary resource or quality;
5. Operating a vessel, including anchoring, in a manner that may destroy, cause the loss of, or injure sanctuary resources or property or in a manner that may injure or endanger the life of sanctuary users;
6. Diving in a manner that could harm sanctuary resources, sanctuary property, or other users of the sanctuary;

7. Stocking within the sanctuary or releasing within or from beyond the boundary of the sanctuary any non-native or exotic species;
8. Defacing, marking, or damaging in any way or displacing, removing, or tampering with any markers, signs, notices, placards, navigational aids, monuments, stakes, posts, mooring buoys, boundary buoys, trap buoys, or scientific equipment;
9. Moving, removing, injuring, preserving, curating, and managing historic resources;
10. Taking, removing, moving, catching, collecting, harvesting, feeding, attracting, injuring, destroying, or causing the loss of or attempting to take, remove, move, catch, collect, harvest, feed, attract, injure, destroy, or cause the loss of any sanctuary resource;
11. Conducting or attempting to conduct any manner of activities within specially designated marine areas, including removing, injuring, or disturbing any living or dead organism or bottom formation; possessing or using certain fishing gear; operating or anchoring vessels; entering areas; and diving;
12. Harvesting marine life species;
13. Possessing or using explosives, electrical charges, or toxic substances within the sanctuary, or using explosives, electrical charges, or toxic substances beyond the sanctuary that then enter the sanctuary and injure a sanctuary resource or quality;
14. Abandoning fishing gear or vessels and removing (including salvaging) fishing gear and grounded, derelict, or abandoned vessels;
15. Maintaining or deserting a derelict vessel or vessel at risk of becoming derelict and leaving harmful matter aboard a grounded or deserted vessel; and,
16. Interfering with any enforcement action.

Section 2. Emergency and/or temporary regulation.

Any and all activities are subject to immediate emergency and/or temporary regulation, including any not listed in Section 1 of this article.

Article V. Effect on Leases, Permits, Licenses, and Rights

Pursuant to paragraph (c)(1) of section 304 of the NMSA, 16 U.S.C. 1434(c)(1), a person may conduct an activity prohibited by sanctuary regulations if such activity is specifically authorized by a valid Federal, State, or local lease, permit, license, approval, or other authorization or right in existence prior to the effective date of these revised terms of designation, provided that the holder of the lease, permit, license, approval, or other authorization complies with the procedures outlined in this subpart and subpart E.

However, in no event may the Secretary of Commerce or his or her designee issue any form of approval for the: (1) exploration, leasing, development, or production of minerals or hydrocarbons; (2) disposal of dredged material within the sanctuary other than in connection with beach renourishment or sanctuary restoration projects; or (3) discharge of untreated or primary treated sewage. Any purported authorizations issued by other authorities for any of these activities within the sanctuary shall be invalid.

Article VI. Alteration of this Designation

The terms of designation, as defined in paragraph (a) of section 304 of the NMSA, 16 U.S.C. 1434(a), may be modified only by the procedures outlined in paragraphs (a) and (b) of section

304 of the NMSA, 16 U.S.C. 1434(a) and (b), including public hearings, consultation with interested Federal, State, and local government agencies, review by the appropriate congressional committees, review by the Governor of the State of Florida, and approval by the Secretary of Commerce, or his or her designee. No designation, term of designation, or implementing regulation may take effect in Florida State waters within the sanctuary if the Governor of the State of Florida certifies to the Secretary of Commerce that such designation, term of designation, or regulation is unacceptable within the forty-five day review period specified in NMSA.

Florida Keys National Marine Sanctuary Boundary Coordinates

The Florida Keys National Marine Sanctuary (sanctuary) encompasses an area of 3,427 square nautical miles (4,539 square miles) of coastal, ocean, and Gulf of Mexico waters and the submerged lands thereunder from the boundary to the shoreline as defined by the mean high water tidal datum surrounding the Florida Keys in southern Florida. The precise boundary coordinates are listed in Appendix I to this Subpart.

The sanctuary boundary begins approximately 4 miles east of the northern extent of Key Biscayne at Point 1 and continues roughly south and then southwest and west in numerical order to Point 15 approximately 27 miles SW of Loggerhead Key. From Point 15 the sanctuary boundary continues north to Point 17 which is approximately 18 miles NW of Loggerhead Key and then continues roughly east in numerical order to Point 23 just north of Sprigger Bank. From Point 23 the boundary continues in numerical order roughly SE to Point 26 just north of Old Dan Bank. From Point 26 the boundary continues NE in numerical order through Bowlegs Cut and Steamboat Channel to Point 42 near the southern entrance to Cowpens Cut west of Plantation Key.

From Point 42 the boundary continues towards Point 43 until it intersects the shoreline. From this intersection the boundary follows the shoreline roughly NNE until it intersects the line segment formed between Point 44 and Point 45.

From this intersection the boundary continues NNE to Point 45 and then roughly NE in numerical order to Point 61 just west of Hammer Point in Tavernier, FL. From Point 61 the boundary continues in numerical order roughly north and then NW to Point 64 just west of Pigeon Key. From Point 64 the boundary continues in numerical order roughly NE then NNE through Baker Cut to Point 69. From Point 69 the boundary continues in numerical order roughly NE through Buttonwood Sound to Point 73.

From Point 73 the boundary continues towards Point 74 until it intersects the shoreline near the southern entrance to Grouper Creek west of Key Largo, FL. From this intersection the boundary follows the shoreline NE along Grouper Creek until it intersects the line segment formed between Point 75 and Point 76. From this intersection the boundary continues towards Point 76 until it intersects the shoreline. From this intersection the boundary follows the shoreline roughly east until it intersects the line segment formed between Point 77 and Point 78.

From this intersection the boundary continues to Point 78 and then roughly ESE in numerical order through Tarpon Basin to Point 85. From Point 85 the boundary continues NE and then NW to Point 92.

From Point 92 the boundary continues towards Point 93 until it intersects the shoreline. From this intersection the boundary follows the shoreline roughly north along Dusenberry Creek until it intersects the line segment formed between Point 94 and Point 95.

From this intersection the boundary continues to Point 95 and then NE in numerical order through Blackwater Sound to Point 102 south of the entrance to Jewfish Creek.

From Point 102 the boundary continues towards Point 103 until it intersects the shoreline. From this intersection the boundary follows the shoreline roughly NNE and then NW until it intersects the line segment formed between Point 104 and Point 105. From this intersection the boundary continues towards Point 105 until it intersects the shoreline. From this intersection the boundary follows the shoreline roughly NNE and then roughly west along southwestern Barnes Sound and around Division Point until it intersects the line segment formed between Point 106 and Point 107 near Manatee Creek east of Long Sound. From this intersection the boundary continues towards Point 107 until it intersects the shoreline. From this intersection the boundary follows the shoreline roughly NNW until it intersects the line segment formed between Point 108 and Point 109. From this intersection the boundary continues towards Point 109 until it intersects the shoreline. From this intersection the boundary follows the shoreline roughly east until it intersects the line segment formed between Point 109 and 110. From this intersection the boundary continues towards Point 110 until it intersects the shoreline. From this intersection the boundary follows the shoreline roughly north and then NE until it intersects the line segment formed between Point 111 and Point 112. From this intersection the boundary continues towards Point 112 until it intersects the shoreline. From this intersection the boundary follows the shoreline roughly east and then north around Bay Point and then west until it intersects the line segment formed between Point 113 and Point 114. From this intersection the boundary continues towards Point 114 until it intersects the shoreline. From this intersection the boundary follows the shoreline north along the western side of Manatee Bay until it intersects the line segment formed between Point 115 and Point 116. From this intersection the boundary continues towards Point 116 until it intersects the shoreline.

From this intersection the boundary follows the shoreline around northern Manatee Bay and Barnes Sound until it intersects the line segment formed between Point 117 and Point 118. From this intersection the boundary continues towards Point 118 until it intersects the shoreline. From this intersection the boundary follows the shoreline roughly to the SE south of FL State Route 905A – Card Sound Road then NW and roughly north along western Little Card Sound and then Card Sound cutting off the mouths of canals and drainage ditches until it intersects the line segment formed between Point 119 and Point 120 south of Midnight Pass. From this intersection the boundary continues to Point 120 and then roughly SE to each successive point in numerical order approximating the southern boundary of Biscayne National Park to Point 142 approximately 3 miles ENE of Turtle Rocks. From Point 142 the boundary continues roughly N to each successive point in numerical order ending at Point 158.

The inner landward sanctuary boundary is defined by and follows the shoreline where not already specified in the description above.

Dry Tortugas National Park is not included within the FKNMS and the inner sanctuary boundary in this area is coterminous with this national park boundary and begins at Point DT1

and continues in numerical order counterclockwise around the national park ending at Point DT10.

AMERICA'S UNDERWATER TREASURES