

Florida Keys National Marine Sanctuary



Review and Discussion
October 2, 2019



Florida Fish and Wildlife Conservation Commission

Version 1

This is a review and discussion of the Florida Keys National Marine Sanctuary's (FKNMS) Restoration Blueprint, the FWC's role in managing the fisheries resources within the FKNMS, proposed regulatory actions, and next steps.

Division: Marine Fisheries Management

Authors: Jessica McCawley, Sarah Fangman, John Hunt, Martha Guyas, and CJ Sweetman

Contact Phone Number: 850-487-0554

Report date: September 6, 2019

Unless otherwise noted, images throughout the presentation are by FWC or Florida Keys National Marine Sanctuary.

Outline

1. Introduction to Florida Keys National Marine Sanctuary (FKNMS)
2. Restoration Blueprint – Sarah Fangman, FKNMS Superintendent
 - Rationale
 - Current conditions
 - Overview of NOAA-preferred alternative
 - FKNMS DEIS next steps
3. FWC timeline/process moving forward



For the discussion today regarding the Florida Keys National Marine Sanctuary's Blueprint Restoration, we will begin with a brief introduction to the FKNMS. This will be followed by a presentation from Sarah Fangman, Superintendent of the Florida Keys National Marine Sanctuary, as she discusses the proposed Restoration Blueprint, which includes changes to regulations within the sanctuary and changes to the FKNMS boundary. Superintendent Fangman will briefly describe the proposed four alternative plans within the plan, with an emphasis on NOAA's preferred alternative. From there we will discuss FWC's role in this process and steps moving forward.

Florida Keys National Marine Sanctuary

- 3,800 square miles
- Shared trusteeship of marine resources with state
 - 60% within state waters
- Encompasses multiple habitat types



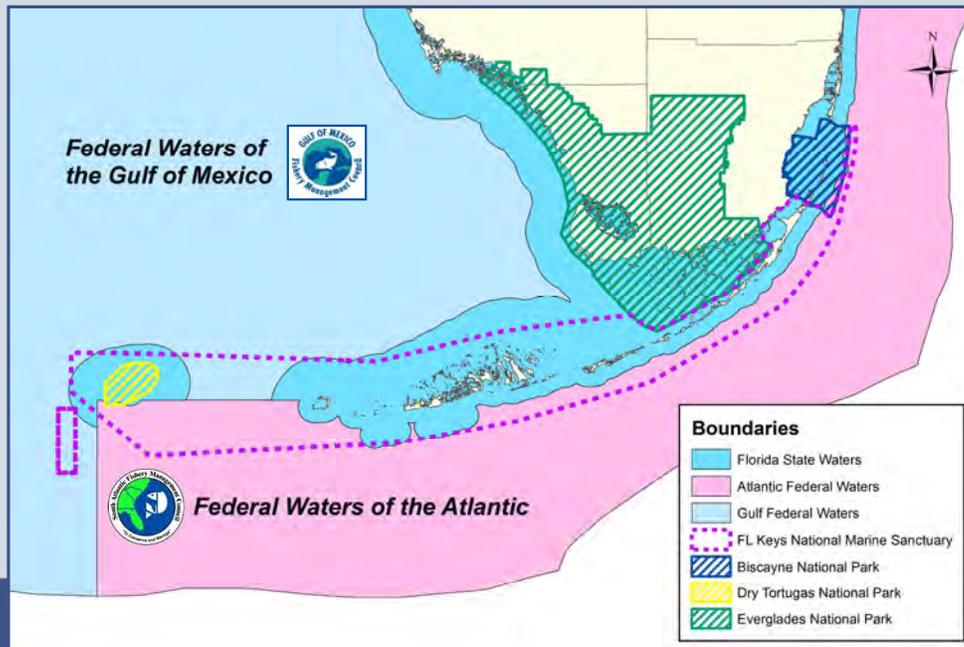
The Florida Keys National Marine Sanctuary encompasses 3,800 square miles. It spans the length of the chain of islands that make up the Florida Keys and includes waters of both the Atlantic Ocean and Gulf of Mexico.

NOAA's Office of National Marine Sanctuaries shares trusteeship of marine resources with the State of Florida, as 60% of the FKNMS falls within state waters.

The FKNMS encompasses numerous habitat types including nursery and essential fish habitat as well as spawning aggregation locations for many fishes and invertebrates. These habitats support a high number of diverse species and the largest documented contiguous seagrass community in the northern hemisphere and the largest barrier reef in the continental United States.

Furthermore, the connectivity between these habitat types is critical to supporting the diversity and abundance of fishes and invertebrates observed in the Florida Keys ecosystem. For example, many fishes and invertebrates use mangroves and seagrass habitats as juveniles for refuge from predators. As they grow, many species transition from these habitats to hardbottom and to offshore reefs for feeding and reproduction.

Multiple Management Authorities in South Florida



Conservation of the Florida Keys marine ecosystem involves a variety of state and federal partners, including NOAA's Office of National Marine Sanctuaries. Many of Florida's important fisheries occur in both state and federally-managed waters and are jointly managed by the Councils and the FWC. Grouper and spiny lobster are two good examples of such fisheries. Within the FKNMS, marine fisheries regulations within state waters are implemented by FWC. However, within federal waters of the FKNMS, marine fisheries regulations are implemented by the Councils or NOAA Office of National Marine Sanctuaries. When federal management plans address significant regulatory changes for species that occur in both federal and state waters, consistency in regulations becomes an important consideration for the FWC.

The FKNMS includes all of the reef track that occurs in the Monroe County portion of the Keys, including that portion within John Pennekamp Coral Reef State Park. The FKNMS borders Everglades National Park and Biscayne National Park to the north and surrounds Dry Tortugas National Park in the southwestern portion of the FKNMS.



Restoration Blueprint

Florida Keys National Marine Sanctuary

Florida Keys National Marine Sanctuary

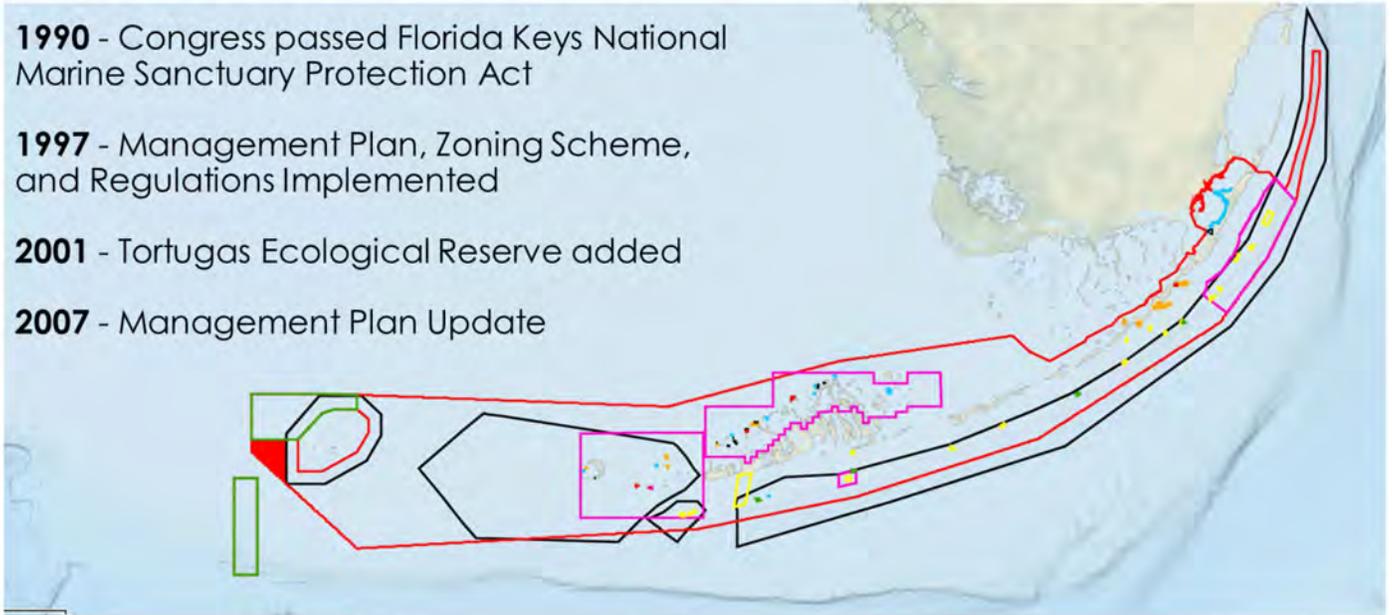


1990 - Congress passed Florida Keys National Marine Sanctuary Protection Act

1997 - Management Plan, Zoning Scheme, and Regulations Implemented

2001 - Tortugas Ecological Reserve added

2007 - Management Plan Update





Why Create a Blueprint?



Healthy Florida Keys

A healthy Florida Keys marine ecosystem is the foundation for a strong economy.

Natural Resources

Numerous stressors are putting the future of the Florida Keys marine environment at risk.

Planning for the Future

We need a plan that addresses the threats to our marine environment and helps us maintain the natural resources that are key to our economy.



Blue Economy of Florida Keys NMS

Tourism

5.5 million visitors in 2018

Boating

4.5 million boaters per annum

Diving and Snorkeling

1.62 million divers and snorkelers per annum

Commercial Fishing

79% of the catch from the sanctuary is processed in Monroe County

Recreational Fishing

2.4 million people fish in FKNMS each year





Economic Impact of Residents and Visitors



A Healthy Florida Keys Ecosystem Provides:

\$4.7 Billion

Monroe County
economy

5.5 million

Visitors

60%

of Monroe County
economy



Natural Resources in the Florida Keys

The Future of the Florida Keys Marine Environment is at Risk



Resource Report Card

Brought attention to natural resource declines

Good Good/Fair Fair Fair/Poor Poor Undet.

Trends:

- ▲ Conditions appear to be improving. ? Undetermined trend.
- Conditions do not appear to be changing. N/A Question not applicable.
- ▼ Conditions appear to be declining.

Office of National Marine Sanctuaries
National Oceanic and Atmospheric Administration



Florida Keys | **CONDITION REPORT 2011**
National Marine Sanctuary



September 2011



Declines in Coral Reefs

The Florida Reef Tract is under pressure

Threats to coral reefs include:

- Coral disease and bleaching
- Poor water quality
- Changing ocean conditions
- Marine debris
- Habitat destruction: groundings, weather, human behavior

Coral cover: 6.22%





Damage to Seagrasses

Seagrass covers 50+% of the Sanctuary

What happens when seagrass is damaged?

- Injury to the habitat
- Loss of fisheries
- Damage to the vessel
- Costly fines and repairs
- Damage assessment and restoration

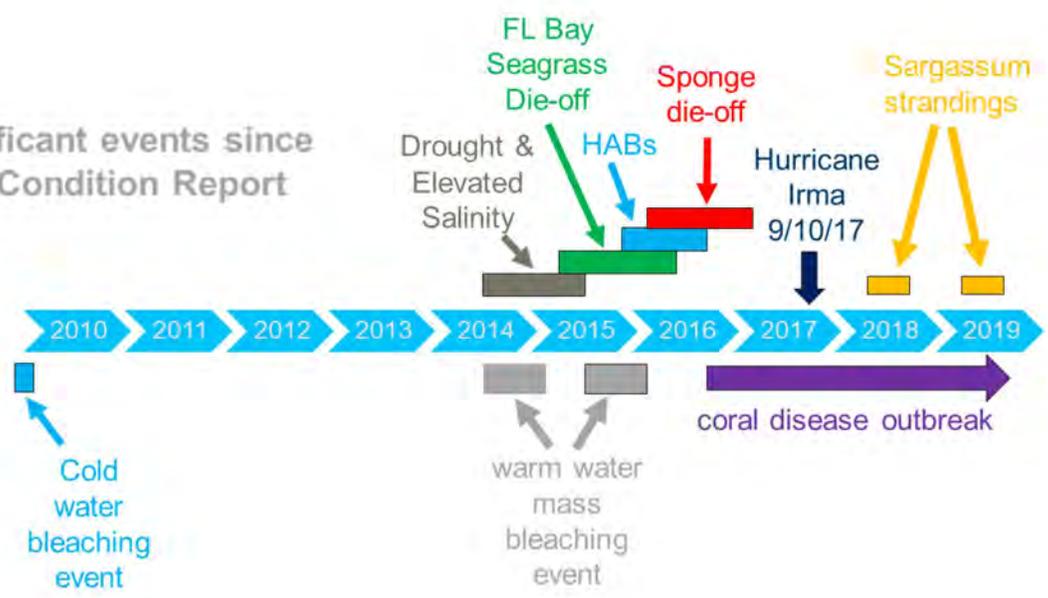
More than 56,000 acres of seagrass have scarring damage

Source: Baker 1999; Krueger, 2017.





Significant events since 2011 Condition Report



Other issues

Population growth

Increased use of resources

Invasive Species (e.g., lionfish)

Fishing pressure

Coastal Development

Marine Debris

Climate change/Ocean acidification





Agency Coordination

Florida State Agencies

- DEP
- FWC Commissioners
- SHPO
- Governor and Cabinet

NOAA Fisheries

Fishery Management Councils

- South Atlantic FMC
- Gulf of Mexico FMC

Agency Partners

- DOI (USFWS, BOEM, NPS)
- Navy
- USCG



Community-led Effort

Sanctuary Advisory Council



50 Council Members +
35 Community Members



70 Public Meetings +
> 1,500 Public Comments



200 Recommendations
to Superintendent





Sanctuary Advisory Council Goals

Improve biological diversity and restore and enhance natural systems across all regions of the Keys



Facilitate public and private resource use compatible with resource protection

- Reduce stresses from human activities by establishing areas that restrict access to sensitive wildlife and habitats
 - Protect large and contiguous habitats to replenish and preserve habitats and full life cycle needs of species
 - Improve/maintain the condition of habitats
 - Increase abundance and condition of selected key species
- Minimize conflicts among uses
 - Prevent heavy concentrations of uses that degrade sanctuary resources
 - Provide undisturbed sites for research and monitoring
 - Achieve vibrant sustainable ecosystem and economy



Sanctuary Advisory Council Working Groups

Shallow Water Wildlife and Habitat Protection

9 advisory council and 10 community members

- Evaluate existing Wildlife Management Areas and recommend new areas to further protect seagrass and critical shallow water habitats.

Coral Reef Ecosystem Restoration

11 advisory council and 4 community members

- Identify specific areas for active coral reef ecosystem restoration.

Ecosystem Protection: Ecological Reserves, Sanctuary Preservation Areas, and Wildlife Management

7 advisory council and 9 community members

- Recommend new or modified ecological reserves to ensure protection of a diversity of resources:
 - Spawning aggregations
 - Full suite of marine flora and fauna (i.e., seabird, marine mammal, turtles, seagrass, soft corals, hard corals)

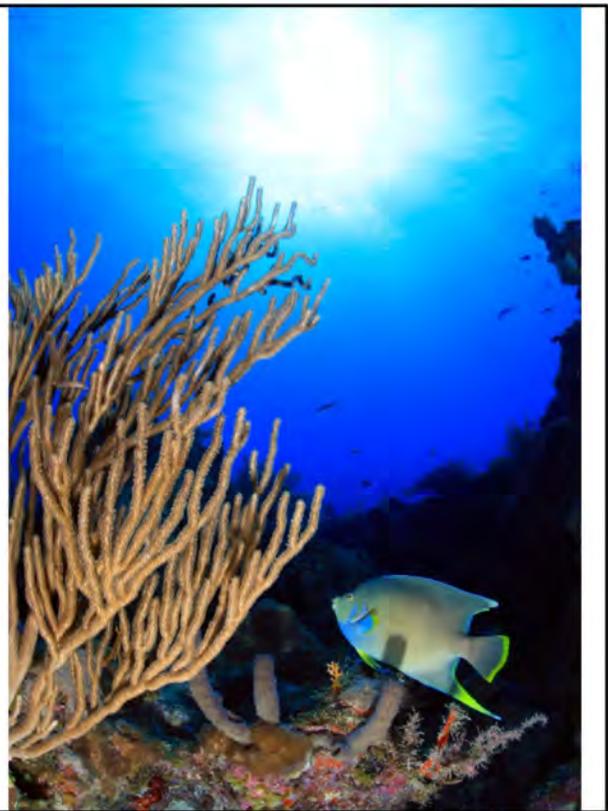
Proposed Action

Alternatives

- No Action
- Range of Reasonable Alternatives (3)
 - Alternative 3 is agency preferred*

Alternative Components

- Management Plan activities
- Boundary expansion
- Sanctuary-wide regulations
- Marine zones & zone specific regulations



NOAA's Preferred Alternative:

- 1. Expand the sanctuary boundary:**
 - protect connected habitats
- 2. Update sanctuary-wide regulations:**
 - be consistent with state regulations
 - provide additional authority to address threats to sanctuary resources
- 3. Modify and create new marine zones:**
 - provide targeted habitat protections
 - protect additional habitat types
 - protect wildlife including ESA listed coral species
 - facilitate research and restoration
 - manage human uses and impacts
- 4. Revise the management plan:**
 - advance understanding
 - improve sanctuary resource condition
 - reduce threats and impacts
 - enhance stewardship
 - advance collaboration and partnership



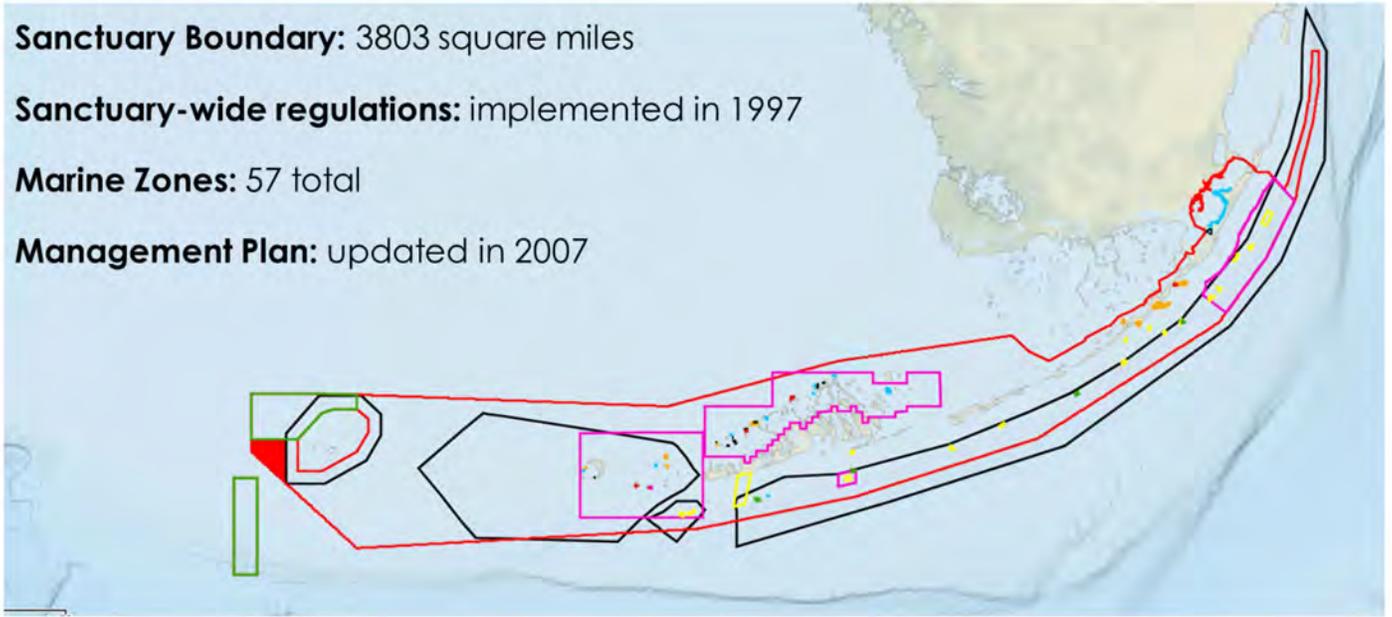
Alternative 1: No Action

Sanctuary Boundary: 3803 square miles

Sanctuary-wide regulations: implemented in 1997

Marine Zones: 57 total

Management Plan: updated in 2007



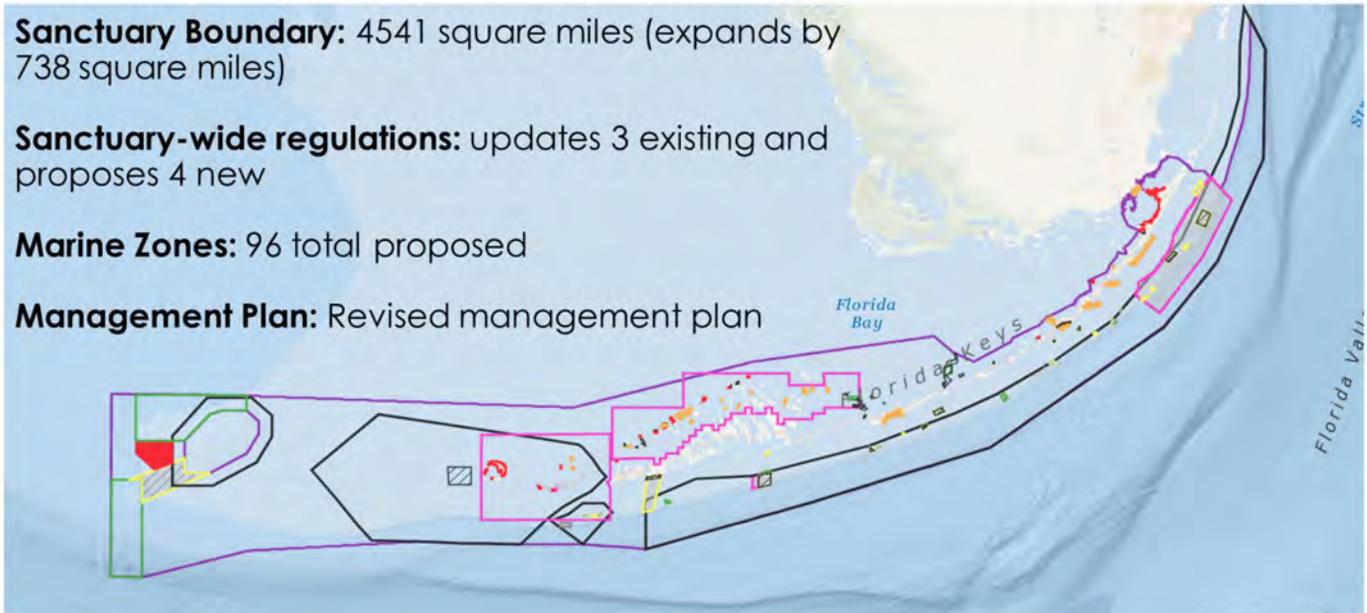
Alternative 2: Reduce concentrated & conflicting uses

Sanctuary Boundary: 4541 square miles (expands by 738 square miles)

Sanctuary-wide regulations: updates 3 existing and proposes 4 new

Marine Zones: 96 total proposed

Management Plan: Revised management plan



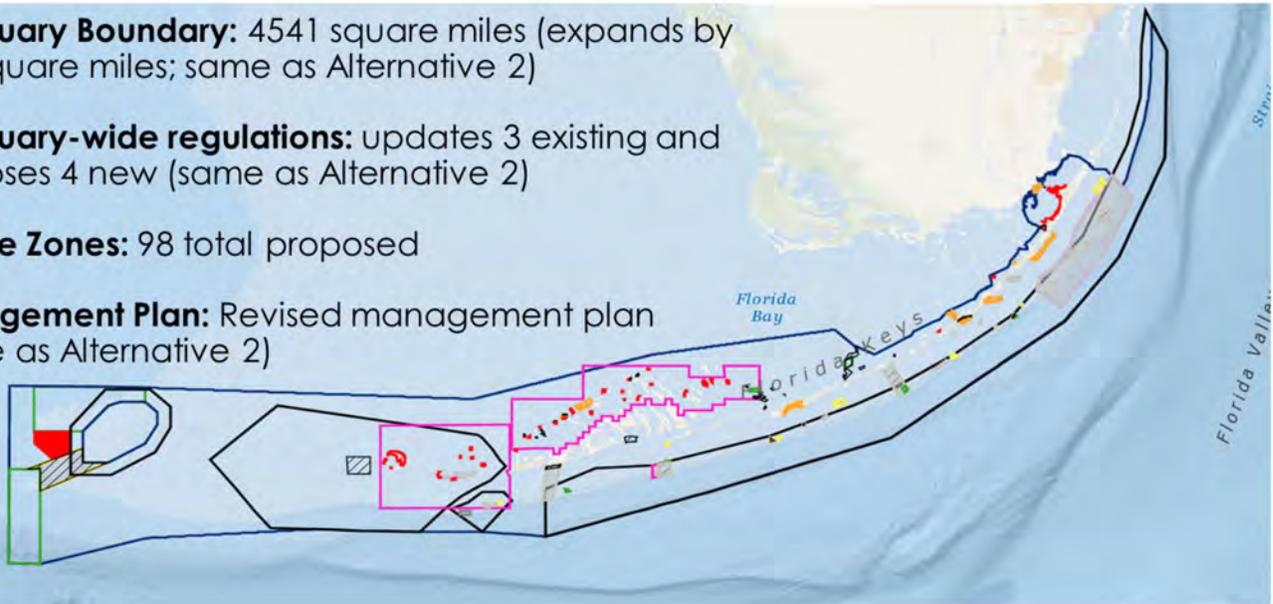
Alternative 3: Preferred

Sanctuary Boundary: 4541 square miles (expands by 738 square miles; same as Alternative 2)

Sanctuary-wide regulations: updates 3 existing and proposes 4 new (same as Alternative 2)

Marine Zones: 98 total proposed

Management Plan: Revised management plan (same as Alternative 2)



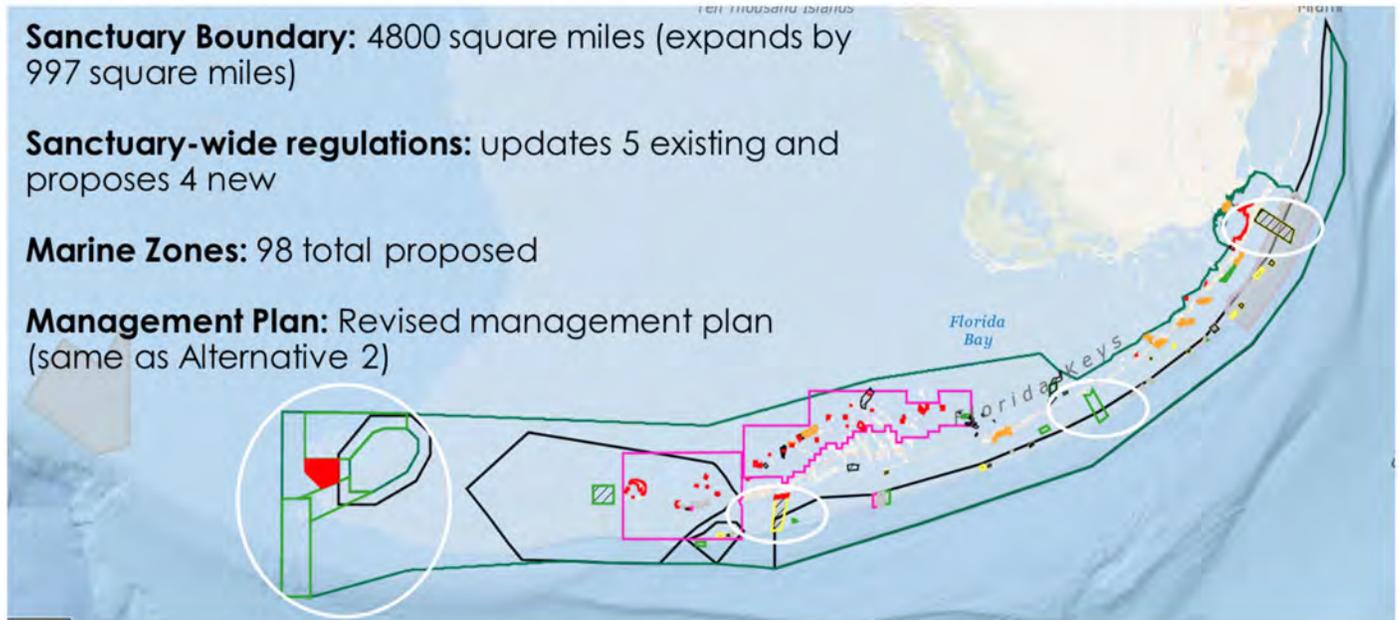
Alternative 4: Protect large contiguous habitats

Sanctuary Boundary: 4800 square miles (expands by 997 square miles)

Sanctuary-wide regulations: updates 5 existing and proposes 4 new

Marine Zones: 98 total proposed

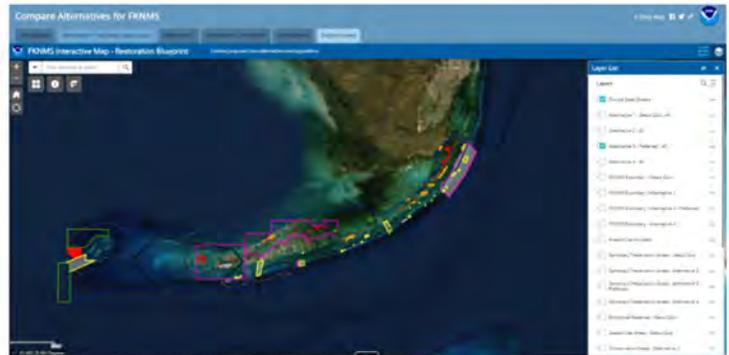
Management Plan: Revised management plan (same as Alternative 2)



Restoration Blueprint Information Tools

Dedicated webpage at floridakeys.noaa.gov/blueprint

[Interactive Map](#) is available to explore alternatives





Advisory Council and Public Information Sessions

Date	Meeting Type	Public engagement opportunity	Location
September 23	Public Information Session	Written Q&A; Written Comment	Key West
September 30	Public Information Session	Written Q&A; Written Comment	Marathon
October 7	Public Information Session	Written Q&A; Written Comment	Tavernier
October 15	Sanctuary Advisory Council meeting	Written and Oral Public Comment	Marathon (likely)
October 28	Public Information Session	Written Q&A; Oral Public Comment	Miami
November 4	Public Information Session	Written Q&A; Oral Public Comment	Ft. Myers
December 10	Sanctuary Advisory Council meeting	Written and Oral Public Comment	Marathon (likely)

Public Comment Period: August 20, 2019 through January 31, 2020
Submit public comments: www.regulations.gov



Regulatory Review Process

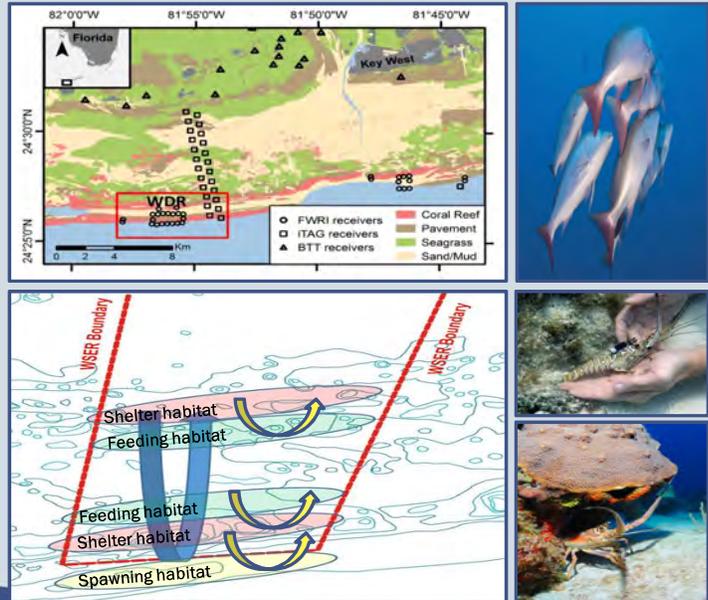


Next Steps:

- Advisory Council and public comment
- State partner coordination
- Agency and Fishery Management Council Consultations

FWC Involvement in FKNMS Process

- Sanctuary Advisory Council
- Working Groups
- Research
 - Restoration ecology
 - Coral reef ecosystems
 - Spawning aggregations and fish movement
 - Spiny lobster



FWC has worked cooperatively with the Florida Keys National Marine Sanctuary to manage Florida's marine resources since the original FKNMS Management Plan was implemented in 1997. FWC staff serve on the Sanctuary Advisory Council, working with other council members representing a diverse range of stakeholders, to provide advice and recommendations for FKNMS operations and projects.

As part of the FKNMS overall management plan review, several working groups were established in 2013 to develop ideas and alternatives for potential changes to the sanctuary's marine zones, boundaries, and regulations. These working groups were established to address the most complex topics, gathering information from community, experts, user groups, and scientists in a series of workshops from 2013-2015. FWC staff served as co-chair for the Ecosystem Protection: Ecological Reserves, Preservation Areas and Wildlife Protection Working Group.

Research conducted by FWC was used throughout the working group process to inform stakeholders and guide SAC members in their recommendations to the Sanctuary. This research encompassed a wide array of topics ranging from restoration ecology, coral reef ecosystems, spawning aggregations and fish movement, which is highlighted in the top figure showing acoustic receivers used to monitor fish movement around Western Dry Rocks. The bottom figure shows how lobsters move throughout Western Sambo Ecological Reserve. FWC research documented how lobsters use different habitats and that important spawning habitat occurs in deeper water outside of the current Reserve.

FWC Role in Regulatory Process

- Coordinate with FKNMS and Councils on draft plan
 - GMFMC: October 2019
 - SAFMC: December 2019
- December 2019: Commission direction on draft plan
- Provide FWC comments
- Continue to engage with FKNMS and state partners throughout federal process
- FWC marine fisheries rulemaking following final approval by FKNMS, Governor and Cabinet



The FWC process will consist of coordinating with the FKNMS and the Councils to ensure consistent regulatory measures for species that occur in both state and federal waters within the Sanctuary. The Gulf Council intends to discuss the FKNMS alternatives at the October meeting and the South Atlantic Council intends to discuss the alternatives at the December meeting.

At the December 2019 Commission meeting, we will discuss the proposed FKNMS draft plan, including important topics identified through stakeholder input.

FWC would then provide comments to the FKNMS prior to the end of the Sanctuary's public comment period on January 31, 2020.

FWC staff will continue to engage with the FKNMS and our state partners throughout the federal process such that coordination with different agencies is timely and efficient.

Following final approval of the plan by FKNMS and the Governor and the Cabinet, FWC would implement marine fisheries rules and regulations within state waters of the FKNMS.

FWC Next Steps – Short Term

- FKNMS public meetings
- Work with FKNMS to understand public comment
- Commission discussion of some plan specifics at December 2019 FWC meeting
- Provide FWC comments on draft plan by January 31, 2020
- Commission updates as FKNMS process moves forward



Moving forward, FWC staff would attend a series of public workshops conducted by the FKNMS and work with the Sanctuary and stakeholders to better understand public comment.

Staff plans to return to the Commission at the December meeting for a discussion on specific aspects of the draft plan and get feedback on possible FWC comments. FWC staff would then submit comments to FKNMS before the end of the public comment period on January 31, 2020.

FWC staff would periodically update the Commission as the FKNMS regulatory review process moves forward.

The following slides are considered backup material
and are not anticipated to be part of the actual
presentation



Restoration Blueprint Alternatives

- Four proposed alternatives
 - Alternative 1: No action
 - Alternative 2: Reduce concentrated & conflicting uses
 - Alternative 3: NOAA preferred
 - Alternative 4: Protect large contiguous habitats
- Advance and support collaborative and coordinated management



[Interactive Map](#) is available to explore alternatives



Overall, the Florida Keys National Marine Sanctuary Restoration Blueprint contains four proposed alternatives. The first is the status quo and each additional alternative is progressively more environmentally protective. The details of each alternative can be found within both the Restoration Blueprint document and in an interactive map where the user can spatially compare proposed plans of each alternative (<https://floridakeys.noaa.gov/blueprint/>).

Draft Management Plan Goals

- Improve understanding of FKNMS resources, ecosystem services, and value to Florida Keys community
- Improve conditions of Sanctuary resources and restore ecosystem structure and function, where possible
- Reduce threats to Sanctuary resources and manage human uses/impacts
- Increase awareness and support for FKNMS and its resources
- Advance and support collaborative and coordinated management



[Interactive Map](#) is available to explore alternatives

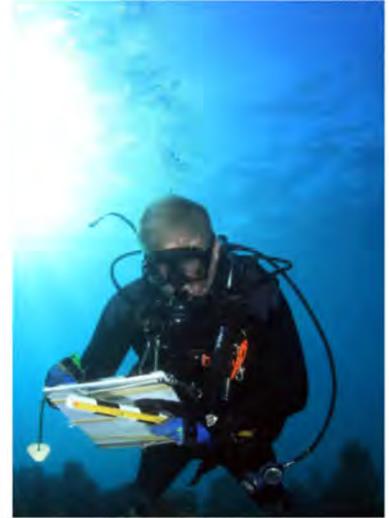


The draft management plan is designed to improve the abundance and health of FKNMS resources and condition of associated habitats through updated and adaptive management efforts, regulatory compliance, community involvement, and stewardship. The draft management plan serves as an overarching framework and is representative of non-regulatory activities the Sanctuary will undertake in the upcoming 5-10 years. The proposed management plan update are intended to streamline and focus sanctuary management actions. However, the final management plan activities would be informed by public comment and advisory council input and would reflect the current needs at the time the final management plan is completed.

Management Approach

GOAL 1: Improve our Understanding of Sanctuary Resources, Ecosystem Services, and their Value to the Florida Keys Economy

- Develop Comprehensive Science Plan
- Develop online data portal
- Survey for and identify historical resources
- Repeat economic value study



Management Approach

GOAL 2: Maintain or Improve the Condition of Sanctuary Resources and, where possible, Restore Ecosystem Structure and Function

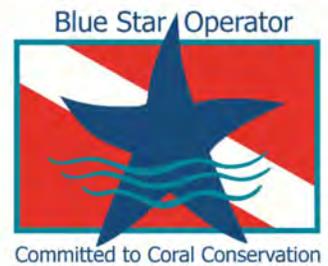
- Update water quality monitoring program
- Develop sanctuary restoration plan
- Collaborate to understand and improve the condition of living marine resources



Management Approach

GOAL 3: Maintain or Increase Efforts to Reduce Threats to Sanctuary Resources and Manage Human Uses and Associated Impacts

- Monitor human use and potential impacts
- Implement a mooring buoy program
- Enhance regulatory compliance
- Execute the permitting program
- Expand the Blue Star programs



Management Approach

GOAL 4: Increase Awareness and Support for FKNMS and its Resources

- Enhance outreach activities and expand to include new and diverse audiences
- Develop issue-specific outreach products and tools
- Support and strengthen volunteer programs



Management Approach

GOAL 5: Advance and Support Collaborative and Coordinated Management

- Facilities and operational requirements
- Enhance existing partnership and collaborative management
- Staffing plans, training

