Restoration Blueprint

An Effort to Restore Critical Marine Habitats in the Florida Keys

Consultation with the Gulf of Mexico Fishery Management Council

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

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

Key West Chamber of Commerce 2018.

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

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%

Source: Coral Reef Evaluation and Monitoring Project (CREMP, 2015)

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; Kruer, 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

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.

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 <u>biological diversity</u> and <u>restore and enhance natural systems</u> across all regions of the Keys

- 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

&

Facilitate public and private <u>resource use</u> compatible with resource protection

- 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)

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

Fishery Management Council Consultation Opportunity

The National Marine Sanctuaries Act – Purposes and Policies

NMSA Section 301(b) – Purpose and Policies	* Identify, designate, and manage the sanctuary system
	* Build and strengthen the sanctuary system
	* Enhance nation-wide public awareness
	* Enhance understanding of ecosystem processes
	* Facilitate compatible human use in sanctuaries
	* Strengthen global protection of marine resources

The National Marine Sanctuaries Act – Procedures for Designation and Implementation

NMSA Section 304(a)(5) – Fishing Regulations	* Provide appropriate Regional FMC opportunity to prepare draft regulations for fishing
	* Council may draft regulations or determine regulations are not necessary
	* Council action must fulfill NMSA purposes and policies and goals and objectives of designation
	* Use national standards of Magnuson-Stevens Act as guidance
	* If Council declines, determination is rejected or, fails to act in timely manner, Secretary shall prepare fishing regulations
	* Cooperate with other fishery management authorities

Proposed Action

Applicable to Gulf of Mexico Fishery Management Council jurisdiction

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

Sanctuary Boundary

Sanctuary Boundary Expansion: Alternative 4

Significant Ecosystems- Pulley Ridge
only included in Alternative 4

Connectivity- Tortugas
included in Alternatives 2, 3, and 4

Consistent regulation- Expand boundary to include areas already closed to large vessel traffic
included in Alternatives 2, 3, and 4

Sanctuary-wide Regulations

Sanctuary-wide Regulations:

Alternatives 2, 3 & 4:

- Limit discharge from cruise ships in sanctuary
- Increase # days allowed for emergency regulation
- Align NOAA permitting regulations with those of the Florida Department of State Division of Historical Resources (DHR)
- Ability to address impact from derelict or deserted vessels
- Prohibit fish feeding
- Mooring buoy restrictions

Only included in Alternative 4:

- **Require FKNMS authorization for live rock aquaculture**
- **Limit boat speed within 100 yards of all shorelines**

Sanctuary-wide Regulations: Fish Feeding

Proposed change applies in Alternatives 2, 3, and 4

Current regulation*:
Inconsistent with state regulations

Not explicitly regulated unless:
- a discharge, or
- destruction, loss, or injury to a sanctuary resource occurs

Proposed Change:

Prohibit the feeding of fish, sharks, or other marine species from any vessel and/or while diving

Note: This proposal does not affect the current exception for discharge of: Fish, fish parts, chumming materials, or bait used or produced incidental to and while conducting a traditional fishing activity in the Sanctuary

*For full text of existing regulations see: 15 CFR 922 Subpart P

Sanctuary-wide Regulations: Live Rock Aquaculture

Proposed change applies in Alternative 4

Current regulation*:

Prohibits harvesting or possessing any live rock within the sanctuary, *except* as authorized by a permit for aquaculture issued by the National Marine Fisheries Service or as authorized by the applicable state authority

Proposed change:

Require sanctuary authorization for existing and any future live rock aquaculture activities

*For full text of existing regulations see: 15 CFR 922 Subpart P

Marine Zone Boundaries & Regulations

Marine Zones

- Individual zone types provide different levels of protection
- Blueprint proposes new zones to address persistent threats to resource health, protect a range of habitat types, and facilitate restoration

Marine Zones within GMFMC jurisdiction

- Sanctuary Preservation Area
  - Manage activities to separate conflicting use and protect habitats
  - Regulations: prohibit discharge, fishing, touching or anchoring on coral

- Ecological Reserves/Conservation Area
  - Most protective zone type
  - Regulations: transit only (without a valid sanctuary permit)

- Wildlife Management Area
  - Restrict vessel operations to protect wildlife & minimize disturbance
  - Regulation Options: no anchor, idle speed/no wake, no motor, no entry

Marine Zones: Sanctuary Preservation Area

Preferred alternative: Tortugas Region

No Anchor

Idle Speed

Sanctuary Preservation Area

Transit Only

Marine Zones

Tortugas Region: protect large contiguous habitats & fish spawning sites

Tortugas North: no change across alternatives
Tortugas South: extends westward by 1 mile in Alternatives 2, 3, and 4
Tortugas Corridor:
Alternatives 2 and 3: Sanctuary Preservation Area
Alternative 4: Conservation Area

Marine Zones

- Marquesas Turtle Zone: protects internationally important sea turtle seagrass foraging habitat

Alternative 1: Status Quo - No Zone

Alternative 2 & 3: Wildlife Management Area

Idle Speed

Alternative 4: Conservation Area

Idle Speed

Transit Only

Consultation Opportunity & Next Steps

Fishery Management Council and Florida Fish and Wildlife Conservation Commission Sessions

Date	Audience	Engagement opportunity	Location
September 16	GMFMC Coral and Shrimp SSC, Coral AP	Presentation, Q&A, Discussion	Tampa, FL
October 2	GMFMC Reef Fish AP	Presentation, Q&A, Discussion	Tampa, FL
October 2	Florida Fish and Wildlife Conservation Commission	Presentation, Q&A	Cape Canaveral, FL
October 21	GMFMC Meeting	Presentation, Q&A	Galveston, TX
October 22	SAFMC Habitat Ecosystem AP	Presentation, Q&A, Discussion	St. Petersburg, FL
December 2-6	SAFMC Meeting	Presentation, Q&A	Wilmington, NC
December 11-12	Florida Fish and Wildlife Conservation Commission	TBD, Public Comment likely	TBD
January 27	GMFMC Meeting	Discussion/recommendation	New Orleans, LA
March	SAFMC Meeting	Discussion/recommendation	Jeckyll Island, GA

Public Comment Period: Open through January 31, 2020

Submit public comments: www.regulations.gov (NOAA-NOS-2019-0094

Proposed Action

Additional Background and Information
(not specific to GMFMC jurisdiction and consultation)

Management Plan

Management Approach

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

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

GOAL 3: Maintain or Increase Efforts to 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.

Sanctuary Boundary

Sanctuary Boundary Expansion: Alternatives 2 & 3

Connectivity- Tortugas

Consistent regulation- Expand boundary to include areas already closed to large vessel traffic

Sanctuary Boundary Expansion: Alternative 4

Significant Ecosystems- Pulley Ridge

Connectivity- Tortugas

Consistent regulation- Expand boundary to include areas already closed to large vessel traffic

Sanctuary-wide Regulations

Sanctuary-wide Regulations:

Alternatives 2, 3 & 4:

- Limit discharge from cruise ships in sanctuary
- Increase # days allowed for emergency regulation
- Align NOAA permitting regulations with those of the Florida Department of State Division of Historical Resources (DHR)
- Ability to address impact from derelict or deserted vessels
- Prohibit fish feeding
- Mooring buoy restrictions

Only included in Alternative 4:

- **Require FKNMS authorization for live rock aquaculture**
- **Limit boat speed within 100 yards of all shorelines**

Marine Zone Boundaries & Regulations

Marine Zones

- Individual zone types provide different levels of protection
- Blueprint proposes new zones to address persistent threats to resource health, protect a range of habitat types, and facilitate restoration

Marine Zones: Sanctuary Preservation Area

Manage activities to separate conflicting use and protect habitats

Regulations: prohibit discharge, fishing, touching or anchoring on coral

Marine Zones: Sanctuary Preservation Area

General approach across alternatives

Alternative 1 - Status Quo

Existing SPA regulations* prohibit:

- Discharge, touching coral, certain anchoring restrictions;
- Fishing, possessing marine life except:
  - Baitfishing allowed by permit in all SPAs
  - Catch and release trolling allowed in some SPAs: Conch, Alligator, Sombrero, and Sand Key SPAs

Alternatives 2, 3, and 4 propose to:

- Eliminate:
  - Baitfishing
  - Catch and release trolling
- Add:
  - Idle Speed/No Wake
  - No Anchor

*For full text of existing regulations see: 15 CFR 922 Subpart P

Marine Zones:

Sanctuary Preservation Area

Preferred alternative:
Upper Keys

No Anchor

Idle Speed

Sanctuary Preservation Area

Limited Entry

Marine Zones:

Sanctuary Preservation Area

Preferred alternative:
Middle Keys

No Anchor

Idle Speed

Sanctuary Preservation Area

Limited Entry

Marine Zones: Sanctuary Preservation Area

Preferred alternative: Lower Keys

No Anchor

Idle Speed

Sanctuary Preservation Area

Marine Zones:

Sanctuary Preservation Area

Preferred alternative:
Marquesas

No Anchor

Idle Speed

Sanctuary Preservation Area

Limited Entry

Marine Zones: Sanctuary Preservation Area

Preferred alternative: Tortugas

No Anchor

Idle Speed

Sanctuary Preservation Area

Transit Only

Marine Zones: Sanctuary Preservation Area (summary of alternatives)

- Separate conflicting uses
- Protect coral reef habitat through placement of mooring buoys

Sanctuary Preservation Areas				
	Alternative 1 (status quo)	**Alternative 2**	**Alternative 3 (preferred)**	**Alternative 4**
Total zones[1]	19	25	26	22
Total area (sq miles)[1]	18	68.43	78	50.33
Regulations applied	*existing SPA regulations *baitfishing permits *catch and release trolling allowed in 4 SPAs	*existing SPA regulations *eliminate baitfish permits *eliminate catch and release trolling *idle speed/no wake *no anchor	*existing SPA regulations *eliminate baitfish permits *eliminate catch and release trolling *idle speed/no wake *no anchor *3 limited entry SPAs	*existing SPA regulations *eliminate baitfish permits *eliminate catch and release trolling *idle speed/no wake *no anchor *2 limited entry SPAs

[1] Includes Western Sambo Ecological Reserve as it is regulated like a Sanctuary Preservation Area

Marine Zones: Conservation Area

Most protective zone type

<u>Regulations</u>: transit only (without a valid sanctuary permit)

Marine Zones: Conservation Area

Preferred alternative

Marine Zones: Conservation Area (summary of alternatives)

- Replace existing Ecological Reserve and Special Use Area zone types
- Most protective zone type
- Protect large contiguous habitat areas
- Facilitate research, restoration, and monitoring

Conservation Areas				
	Alternative 1 (status quo)	**Alternative 2**	**Alternative 3 (preferred)**	**Alternative 4**
Total zones	6[1]	8	8	13
Total area (sq miles)	182.23	203.21	203.21	270.01
Regulations applied	transit only without applicable permit	transit only without applicable permit	transit only without applicable permit	transit only without applicable permit

[1] Alternative 1 includes two Ecological Reserves and four Special Use Areas.

Marine Zones: Wildlife Management Area

Restrict vessel operations to protect wildlife & minimize disturbance

Regulation Options: no anchor, idle speed/no wake, no motor, no entry

Marine Zones: **Wildlife Management Area**

Restrict vessel operations to protect seagrass and hardbottom habitat

Regulation Options: no anchor, idle speed/no wake, no motor, no entry

Tavernier Key No Motor zone

before & after zoning

Photos: Curtis Kruer; Florida Keys Shallow Water Boating Impact Analysis and Trends Assessment - Mapping Summary Report, March 2017

Marine Zones: Wildlife Management Area

Preferred alternative: Middle Keys

No Entry

No Anchor

Idle Speed

Trolling Only

No Motor

Marine Zones:
Wildlife Management Area
Preferred alternative: Marquesas

No Entry

No Anchor

Idle Speed

Trolling Only

No Motor

Marine Zones: **Wildlife Management Area** (summary of alternatives)

- Minimize disturbance to sensitive or endangered wildlife
- Restrictions vary- no anchor, idle speed/no wake, no motor, no entry
- WMAs are small and targeted, and comprise the majority of existing and proposed new zones

Wildlife Management Areas				
	Alternative 1 (status quo)	**Alternative 2**	**Alternative 3 (preferred)**	**Alternative 4**
Total zones[1]	28	59	60	59[2]
Total area (sq miles)[1]	37.55	67.68	69.62	322.73[2]
Regulations applied	*idle speed/no wake *no motor *no anchor *no access buffer zone *closed	*idle speed/no wake *no motor *no anchor *trolling only *no entry	*idle speed/no wake *no motor *no anchor *trolling only *no entry	*idle speed/no wake *no motor *no anchor *no entry

[1] Includes Tortugas No Anchor zone
[2] Includes Pulley Ridge No Anchor zone

Marine Zones: **Management Areas** (image shows status quo)

Areas that were already established when FKNMS was designated in 1990
Proposed name update to from "Existing Management Areas"

Marine Zones: Management Areas

Proposed spatial and regulation changes at Looe Key

Alternative 1

Alternatives 2 & 3

Alternative 4

Sanctuary Preservation Area
Idle Speed
No Anchor
Management Area
Transit Only
Existing Management Area

Marine Zones: Management Areas

- proposed anchoring prohibition in Key Largo

Alternative 1
Existing Management Area regulations

Alternative 2
Existing Management Area regulations
No Anchor

Marine Zones: Management Areas (summary of alternatives)

Management areas (including national wildlife refuges)[1]				
	Alternative 1 (status quo)	Alternative 2	Alternative 3 (preferred)	Alternative 4
Total zones	4	4	4	4
Total area: Looe Key and Key Largo sq miles	139.45	134.75	134.75	134.75
Regulations applied to Key Largo and Looe Key	Prohibited activities: *Removing, taking, spearing, or otherwise damaging any coral, marine invertebrate, plant, soil, rock, or other material; taking tropical fish *Use of wire fish traps and similar gear *Spearfishing	*Existing regulations applied and *No Anchoring	*Existing regulations applied and *No Anchoring	*Existing regulations applied and *No Anchoring
Total area: Key West and Great White Heron NWR	656.06	656.06	656.06	656.06
Regulations applied to NWR portions[1]	Prohibited activities: Operating a personal watercraft (PWC), airboat, or water skiing	Small area of relief for PWC operation around the "G13" marker	Small area of relief for PWC operation around the "G13" marker	Small area of relief for PWC operation around the "G13" marker

Marine Zones: Highlights Across Alternatives

Marine Zones: Highlight Zone Changes Across Alternatives

Carysfort: protect large contiguous habitats in the Upper Keys

Alternative 1: Sanctuary Preservation Area

Alternative 2: Sanctuary Preservation Area

Alternative 3: Limited Use Sanctuary Preservation Area

Alternative 4: Sanctuary Preservation Area

Marine Zones: Highlight Zone Changes Across Alternatives

Long Key-Tennessee Reef: protect large contiguous habitats in the Middle Keys

Alternative 1: Special Use Area

Alternative 2: Conservation Area

Alternative 3: Sanctuary Preservation Area & Conservation Area

Alternative 4: Conservation Area

Idle Speed

Sanctuary Preservation Area

Transit Only

Marine Zones: Conservation Area

Tortugas Region: protect large contiguous habitats & fish spawning sites

Tortugas North: no change across alternatives
Tortugas South: extends westward by 1 mile in Alternatives 2, 3, and 4
Tortugas Corridor:
Alternatives 2 and 3: Sanctuary Preservation Area
Alternative 4: Conservation Area

No Anchor Vessels Greater than 50 m
Idle Speed
Transit Only

Marine Zones: Highlight Zone Changes Across Alternatives

Western Dry Rocks: protects a multi-fish spawning aggregation site

Alternative 1: Status Quo - No Zone

Alternatives 2 & 3: Wildlife Management Area

Trolling Only

Alternative 4: Conservation Area

Transit Only

Marine Zones: Highlight Zone Changes Across Alternatives

- Marquesas Turtle Zone: protects internationally important sea turtle seagrass foraging habitat

Alternative 1: Status Quo - No Zone

Alternative 2 & 3: Wildlife Management Area

Idle Speed

Alternative 4: Conservation Area

Idle Speed

Transit Only

Marine Zones: Restrict anchoring to protect habitats

Looe Key & Key Largo Management Area
(Alternatives 2, 3, and 4)

All Sanctuary Preservation Areas
(Alternatives 2, 3, and 4)

Tortugas No Anchor Zone
(existing, applies to vessels over 50m)

Pulley Ridge
(only in Alternative 4, applies to all vessels)

Summary of Alternatives

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)

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

Restoration Blueprint Information Tools

Dedicated webpage at floridakeys.noaa.gov/blueprint

[Interactive Map](#) will be available to explore alternatives

Public Engagement Opportunities

Advisory Council and Public Information Sessions

Date	Meeting Type	Location
September 23	Public Information Session	Key West, High School
September 30	Public Information Session	Marathon, Middle High School
October 7	Public Information Session	Tavernier, Coral Shores High School
October 15	Sanctuary Advisory Council meeting	Key West, Marriott Beachside
October 28	Public Information Session	Miami, UM Alumni Center
November 4	Public Information Session	Ft. Myers, Holiday Inn Airport
December 10	Sanctuary Advisory Council meeting	Upper Keys, location TBD

Public Comment Period: August 30, 2019 through January 31, 2020
Submit public comments: www.regulations.gov

THANK YOU

Insert Image