



## **Florida Keys National Marine Sanctuary Marine Zoning and Regulatory Review**

## **Florida Keys National Wildlife Refuges Backcountry Management Plan Update**

## **Summary of Scoping Comments**

**August 21, 2012**

# Table of Contents

Table of Contents .....	1
Acronyms .....	3
Introduction .....	5
Contact Information.....	6
Descriptions.....	7
Florida Keys National Marine Sanctuary Maps .....	8
Florida Keys National Wildlife Refuges Maps .....	9
Goals and Objectives for Marine Zoning and Regulatory Review .....	10
Principles for Marine Zoning and Regulatory Review.....	11
Sanctuary Advisory Council.....	12
Timeline.....	19
Federal Register Notice .....	21
Backcountry Management Plan Summary .....	26
Comment Categories .....	28
Categorized Comments .....	29
Administration .....	29
Adaptive Management .....	39
Aids to Navigation .....	41
Displacement Effects .....	42
Education.....	42
Brochures.....	46
Maps, Charts, Signs.....	47
Public Service Announcements (PSA’s).....	48
Technology / Social Media / Web .....	48
Enforcement .....	49
Fines .....	51
Greening Operations .....	51
Oppose - General.....	52
Permitting.....	52
Regulations.....	53
Research and Monitoring .....	56
Scientific Basis.....	57
State and County Management .....	61
Support - General .....	61
User Fees.....	61
Artificial Habitat .....	64
Lobster Casitas.....	66
Wrecks and Ships To Reefs .....	69
Boundary.....	70
Coastal Development.....	72
Coral and Reef Restoration.....	73
Fishery.....	78
Bait .....	82
Catch and Release .....	83
Lobster / Crab.....	84
Goliath Grouper .....	86
Mutton Snapper .....	86
Education.....	87

Sponging .....	87
Invasive / Non-Native .....	89
Nursery and Spawning Aggregation Protection .....	91
New or Modified Sanctuary Preservation Areas and Ecological Reserves .....	95
Seagrass Protection .....	99
No-Access / No Motor / Buffer Zones .....	101
Pole Troll.....	103
Wildlife Management Areas (WMAs).....	104
Submerged Cultural Resources.....	106
User Conflicts .....	107
Diving and Snorkeling .....	108
Kayaks.....	110
Personal Watercraft (PWC) Issues.....	110
Personal Watercraft (PWC) Suggested Strategies and Tools: .....	112
Water Quality.....	118
Liveboards .....	121
Marine Debris.....	123
Pump Out .....	125
Wildlife Protection.....	126
Kayaks.....	131
Personal Watercraft.....	131
Turtles .....	133
Wildlife Management Areas .....	133

## Acronyms

<b>Acronym</b>	<b>Meaning</b>
ALG .....	Alternative Lobster Gear
AR .....	Artificial Reef
ARRA .....	American Recovery and Reinvestment Act
ATBA .....	Area To Be Avoided
BHB .....	Bahia Honda Bridge
BMP .....	Backcountry Management Plan
BNP .....	Biscayne National Park
C&R .....	Catch and Release
CFR .....	Code of Federal Regulations
CPR .....	Cardio Pulmonary Resuscitation
CRF .....	Coral Restoration Foundation
DEMA .....	Dive Equipment Manufacturers Association
DEP .....	Florida Department of Environmental Protection
DIN .....	Dissolved Inorganic Oxygen
DOC .....	Department of Commerce
DTNP .....	Dry Tortugas National Park
ECCD .....	Environmentally Concerned Commercial Divers of the Florida Keys
EIS .....	Environmental Impact Statement
EMA .....	Existing Management Area
ENP .....	Everglades National Park
EPA .....	Environmental Protection Agency
ER .....	Ecological Reserve
FAQ .....	Frequently Asked Questions
FDEP .....	Florida Department of Environmental Protection
FKCFA .....	Florida Keys Commercial Fishermen's Association
FKNMS .....	Florida Keys National Marine Sanctuary
FKNMSPA .....	Florida Keys National Marine Sanctuary and Protection Act
FKNWR .....	Florida Keys National Wildlife Refuge
FL .....	Florida
FTE .....	Full Time Equivalency
FWC .....	Florida Fish and Wildlife Conservation Commission
FFWCC .....	Florida Fish and Wildlife Conservation Commission
FWS .....	U.S. Fish and Wildlife Service
GIS .....	Global Information System
GOM .....	Gulf of Mexico
GPS .....	Global Positioning System
GWH .....	Great White Heron National Wildlife Refuge
GWHNWR .....	Great White Heron National Wildlife Refuge
IG .....	Inspector General
KLNMS .....	Key Largo National Marine Sanctuary
KWNWR .....	Key West National Wildlife Refuge
LE .....	Law Enforcement
LEO .....	Law Enforcement Officer
LKNMS .....	Looe Key National Marine Sanctuary
LRAQ .....	Live Rock Aqua Culture
MPA .....	Marine Protected Area
MSD .....	Marine Sanitation Device

NAS .....	Naval Air Station
NEPA .....	National Environmental Policy Act
NGO .....	Non-Government Organizations
NHPA .....	National Historic Preservation Act
NMFS .....	National Marine Fisheries Service
NMS .....	National Marine Sanctuary
NMSA .....	National Marine Sanctuary Act
NNC .....	Numeric Nutrient Criteria
NOAA .....	National Oceanic Atmospheric Administration
NOS .....	National Ocean Service
NPS .....	National Park Service
NWR .....	National Wildlife Refuge System Improvement Act
NWRSIA .....	National Wildlife Refuge System Improvement Act
OFW .....	Outstanding Florida Waters
OLE .....	Office of Law Enforcement
ONMS .....	Office of National Marine Sanctuaries
PADI .....	Professional Association of Dive Instructors
PPT .....	PowerPoint
PSA .....	Public Service Announcement
PVC .....	Polyvinyl Chloride
PWC .....	Personal Watercraft
REEF .....	Reef Environmental Education Foundation
RO .....	Research Only Area
ROA .....	Research Only Area
ROD .....	Record of Decision
SAC .....	Sanctuary Advisory Council
SCUBA .....	Self Contained Underwater Breathing Apparatus
SPA .....	Sanctuary Preservation Area
SRP .....	Soluble Reactive Phosphorus
SUA .....	Special Use Area
U.S. ....	United States
USA .....	United States of America
USCG .....	United States Coast Guard
USFWS .....	U.S. Fish and Wildlife Service
WMA .....	Wildlife Management Area
WSER .....	Western Sambo Ecological Reserve

## **Introduction**

In response to requests by members of the public, shifting environmental conditions and threats in the Keys, better scientific information, and legal requirements, Florida Keys National Marine Sanctuary is conducting a review of sanctuary regulations, including the rules and boundaries for marine zones in the sanctuary and surrounding national wildlife refuges. The U.S. Fish and Wildlife Service's Florida Keys National Wildlife Refuges Complex, which co-manages 20 of the sanctuary's 27 Wildlife Management Areas, will also play a key role in the review while simultaneously updating its own Backcountry Management Plan.

The review of the marine zone boundaries and regulations of Florida Keys National Marine Sanctuary will be a very involved, open, and public process culminating in the implementation of any regulatory modifications, additions, or eliminations in 2015. The process will take time – not months, but years. It will involve proactively reaching out to members of the community to gather input, weighing collected information against the best available science, and developing recommendations that will allow the sanctuary to meet the goals and objectives of the review. The timeline for this review is included in this document on pages 19 and 20.

### Process and Role of the Sanctuary Advisory Council

Florida Keys National Marine Sanctuary Advisory Council will provide the guidance and direction for this review. The council is a community-based advisory groups established to provide advice and recommendations to the superintendents of the Florida Keys National Marine Sanctuary. The council members serve as liaisons between their constituents in the community and sanctuaries and provide expertise on both the local community and sanctuary resources, strengthen connections with the community, and help build increased stewardship for sanctuary resources. Florida Keys National Marine Sanctuary Advisory Council members represent boating, conservation and environment, diving, education and outreach, South Florida ecosystem restoration, fishing (commercial and recreational), elected county government, submerged cultural resources, research and monitoring, tourism and the community at large. The council meets at least six times a year in various locations around the Florida Keys and the members are listed on pages 12 through 18.

This review formally began in December 2011 when the Sanctuary Advisory Council adopted Goals, Objectives, and Principles for this regulatory process (pages 10 and 11). This initial guidance shaped the public notice for a request for public comment during the scoping period. Scoping comments were received from April 19 through June 29. Comments on the direction the sanctuary should take to best protect and conserve the living marine resources and submerged cultural resources of the Florida Keys were accepted electronically at [www.regulations.gov](http://www.regulations.gov) under docket number NOAA-NOS-2012-0061, letters to the Sanctuary Superintendent and Refuge Manager, and at five meetings held in the Florida Keys, Miami and Fort Myers. Approximately 1300 comments were submitted and encompassed a wide range of topics. Comments may be viewed in their entirety at [www.regulations.gov](http://www.regulations.gov) under docket number NOAA-NOS-2012-0061.

This document summarizes and attempts to group the variety of comments submitted during the scoping period. Some of the comments have been listed in multiple categories based on staff analysis. Additional materials such as maps or supporting reports and research were also submitted during the scoping period and are available online in the docket referenced above. Due to formatting constraints for this document, many of the maps, charts, and submitted material were not included in this document but will be available during discussions and deliberations by the Advisory Council (and any subsequent working groups or workshops) on the related topics.

### Next Steps

Florida Keys National Marine Sanctuary, Florida Keys National Wildlife Refuge Complex, and the Sanctuary Advisory Council will use the public comments for guidance to best determine the high priority resource management issues to address in this review and evaluate management alternatives. In the coming year, the Florida Keys National Marine Sanctuary Advisory Council will develop recommendations, using the input from the Scoping Meetings, for NOAA and the U.S. Fish and Wildlife to consider, and staff will assess the environmental impacts of any modifications or additions to sanctuary regulations. Finally, any changes to marine zone regulations or boundaries will be adopted and implemented.

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## **Descriptions**

### **Florida Keys National Marine Sanctuary**

<http://floridakeys.noaa.gov>

Designated on November 16, 1990, Florida Keys National Marine Sanctuary is one of 14 marine protected areas that make up the National Marine Sanctuary System. Administered by NOAA, a federal agency, and jointly managed with the State of Florida, Florida Keys National Marine Sanctuary protects 2,900 square nautical miles of waters surrounding the Florida Keys, from south of Miami westward to encompass the Dry Tortugas, excluding Dry Tortugas National Park. The shoreward boundary of the sanctuary is the mean high-water mark, essentially meaning that once you set foot in Keys waters, you have entered the sanctuary.

Within the boundaries of the sanctuary lie spectacular, unique, and nationally significant marine resources, from the world's third largest barrier reef, extensive seagrass beds, mangrove-fringed islands, and more than 6,000 species of marine life. The sanctuary also protects pieces of our nation's history such as shipwrecks and other archeological treasures.

### **National Wildlife Refuges**

<http://www.fws.gov/nationalkeydeer/backcountry.html>

The Florida Keys National Wildlife Refuges Complex is administered by the U.S. Fish and Wildlife Service (FWS), and includes the Key West, Great White Heron, Key Deer and Crocodile Lake National Wildlife Refuges. These refuges represent a collection of low-lying, subtropical islands between the Gulf of Mexico and the Atlantic Ocean that protect all the vital habitats representative of the Florida Keys ecosystem, including the globally imperiled pine rockland forest, hardwood hammock and mangroves, and nearshore marine waters. These geologically and climatically distinct islands provide a haven for a diversity of native flora and fauna, including threatened and endangered species, a number of which are endemic and found nowhere else.

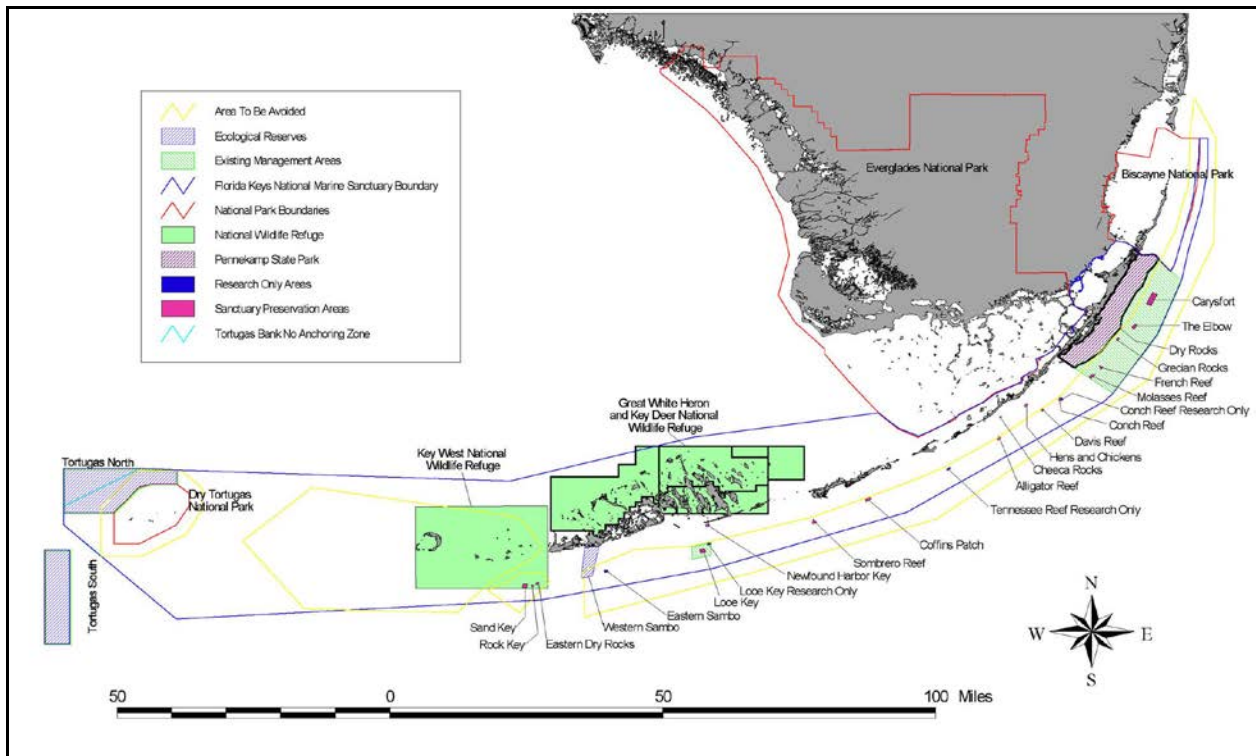
The boundaries of the Key West and Great White Heron National Wildlife Refuges encompass more than 400,000 acres of marine waters. While the FWS has full federal authority to regulate public access and activities on all refuge-owned islands above the mean high tide line, the waters and submerged lands below the mean high tide line seaward are owned by the State of Florida. In 1992, FWS entered into a management agreement with Florida that authorized the application of federal regulations within state waters and submerged lands to minimize wildlife disturbance and habitat damage from non-wildlife-dependent recreational activities, consistent with the laws and policies of the National Wildlife Refuge System. The FWS-State management agreement is commonly known as the Backcountry Management Plan.



# Florida Keys National Marine Sanctuary Maps



This simple map outlines the boundaries of the sanctuary in relation to south Florida. It does not show the boundaries of individual marine zones, or the boundaries of other state or federal areas.



This map shows the boundaries of the sanctuary and its marine zones, as well as the boundaries of adjacent parks and refuges differentiated by color.



# Goals and Objectives for Marine Zoning and Regulatory Review

Approved on 12/13/2011 by Florida Keys National Marine Sanctuary Advisory Council.

- A. To improve the diversity of natural biological communities in the Florida Keys to protect, and, where appropriate restore and enhance natural habitats, populations and ecological processes overall and in each of these sub regions Tortugas, Marquesas, Lower, Middle, and Upper Keys.
  1. Reduce stresses from human activities by establishing areas that restrict access to sensitive wildlife populations and habitats.
  2. Protect large, contiguous, diverse and interconnected habitats that provide natural spawning, nursery, and permanent residence areas for the replenishment and genetic protection of marine life and protect and preserve all habitats and species.
  3. Improve/maintain the condition of the biologically structured habitats including
    - a) Coral Reef
      - i. Inshore Patch Reef
      - ii. Mid-Channel Patch Reef
      - iii. Offshore Patch Reef
      - iv. Reef Margin/Fore Reef
      - v. Deep Reef
    - b) Seagrass Bed
    - c) Hardbottom
    - d) Coastal Mangrove
  4. Increase abundance and condition of selected key species including corals, queen conch, long spined sea urchin, apex predatory fish, birds and sea turtles.
- B. To facilitate to the extent compatible with the primary objective of resource protection, all public and private uses of the resources of these marine areas not prohibited pursuant to other authorities.
  1. Minimize conflicts among uses compatible with the National Marine Sanctuary.
  2. Prevent heavy concentrations of uses that degrade Sanctuary resources.
  3. Provide undisturbed monitoring sites for research and control sites to help determine the effects of human activities.
  4. Achieve a vibrant ecologically sustainable ecosystem and economy.
    - a) Apply the best available science and balanced, conservation based management.

# Principles for Marine Zoning and Regulatory Review

Approved on 12/13/2011 by Florida Keys National Marine Sanctuary Advisory Council.

1. The Florida Keys National Marine Sanctuary regulation/zoning review should be conducted with the recognition that there are bordering and overlapping marine management regimes in place, and that these regimes must be considered when contemplating changes to the Florida Keys National Marine Sanctuary regulation/marine zoning structure.
2. All areas of the Florida Keys National Marine Sanctuary should be classified as part of a specific zone, therefore the current “unzoned” area should be classified as a recognized zone type such as “general use area” or “multiple use area”.
3. Each habitat type should be represented in a non-extractive marine zone in each of the biogeographically distinct sub regions of the Florida Keys National Marine Sanctuary to achieve replication. The subregions identified were the Tortugas, Marquesas, and Lower, Middle, and Upper Keys.
4. Information on resilient reef areas that can serve as refugia should be taken into account in zoning changes.
5. Temporal zoning should be considered as a tool for protecting spawning aggregations and nesting seasons.
6. The size of individual non-extractive zoned areas, the cumulative total area included in non-extractive zones, and their spatial relationship with one another matter greatly in achieving the resource protection purposes of the Florida Keys National Marine Sanctuary.

# Sanctuary Advisory Council

Updated 6/27/12

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*Alternate:* none

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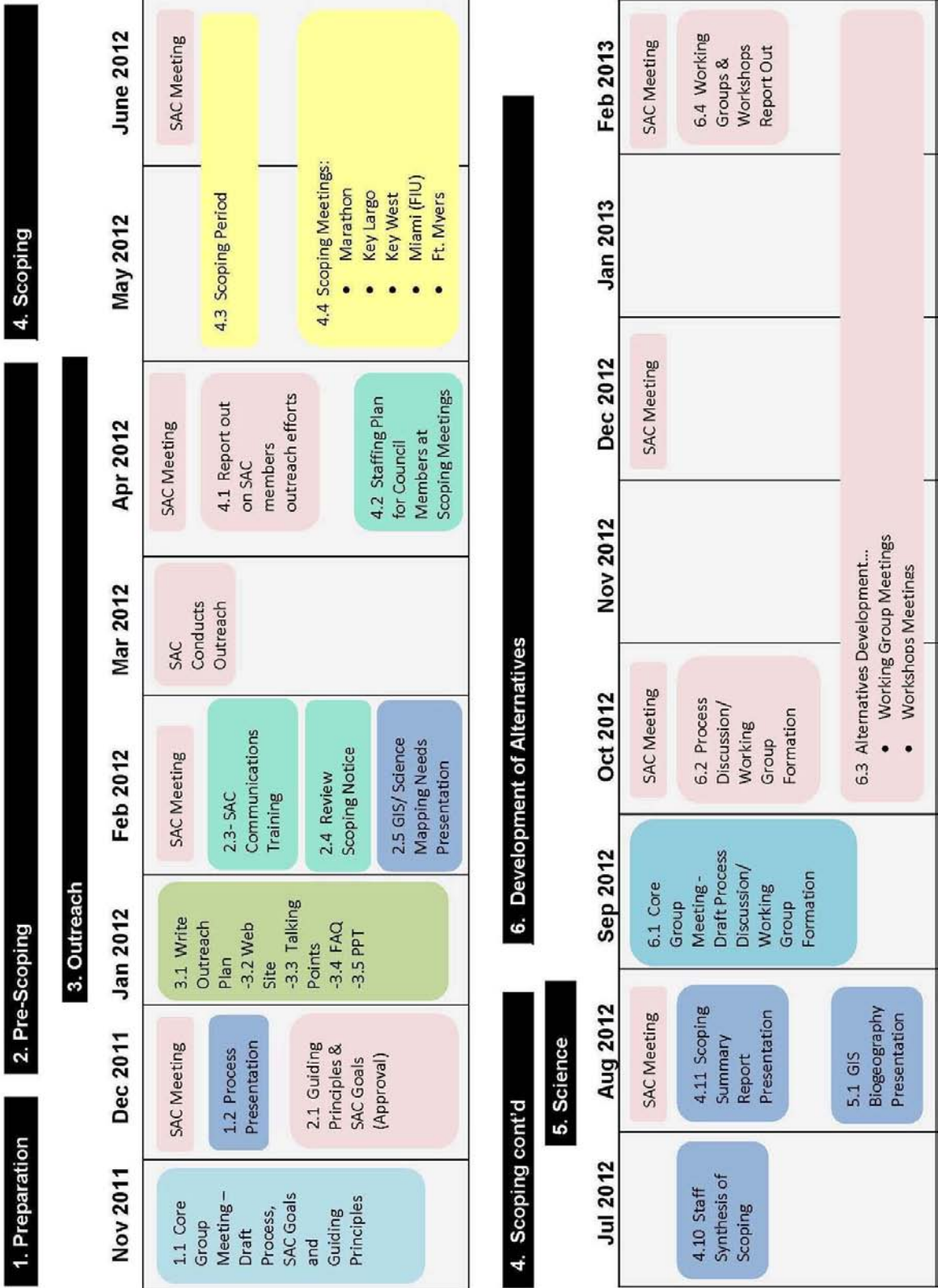
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# Timeline

Approved on 12/13/2011 by Florida Keys National Marine Sanctuary Advisory Council.

## Florida Keys NMS Marine Zoning and Regulatory Review / Refuge Backcountry Mgmt Plan Sanctuary Advisory Council Process and Timeline



**Timeline (continued)**

**6. Development of Alternatives cont'd**

Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013	Sep 2013	Oct 2013
	SAC Meeting 6.4 Working Groups & Workshops Report Out		SAC Meeting 6.5 Working Groups & Workshops Report Out and Present Draft SAC Recommended Alternatives	6.6 Core Group Meeting – Draft SAC Recommended Alternatives	SAC Meeting 6.7 Discussion of Draft SAC Recommended Alternatives		SAC Meeting 6.8 Finalize SAC Recommended / Preferred Alternatives
6.3 Alternatives Development cont'd							

**7. Future Steps**

Nov 2013	Spring 2014	Summer 2014	Fall 2014	Spring 2015	Summer 2015
7.1 NOAA / USFWS Prepare Draft Environmental Impact Statement (EIS) with Preferred Alternative	7.2 Draft Environmental Impact Statement (EIS) with Preferred Alternative Published 7.3 Public Comment		7.4 Fishery Management Council and FWC Review 7.5 State of Florida Review 7.6 Public Comment	7.7 Final Rule/ Environmental Impact Statement (EIS)/ Record of Decision (ROD)	7.8 Implementation

# Federal Register Notice

<http://www.regulations.gov/#!documentDetail;D=NOAA-NOS-2012-0061-0002>



of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

#### (q) Related Information

Refer to MCAI Canadian Airworthiness Directive CF-2010-24, dated August 3, 2010; and the service bulletins specified in paragraphs (q)(1), (q)(2), (q)(3), (q)(4), (q)(5), (q)(6), (q)(7), (q)(8), and (q)(9) of this AD; for related information.

(1) Canadair Regional Jet Temporary Revision RJ/186-1, dated August 24, 2010, to the Canadair Regional Jet Airplane Flight Manual, CSP A-012.

(2) Bombardier Alert Service Bulletin A601R-29-029, Revision B, dated May 11, 2010, including Appendix A, dated October 18, 2007.

(3) Bombardier Alert Service Bulletin A601R-29-031, Revision A, dated March 26, 2009.

(4) Bombardier Alert Service Bulletin A601R-32-103, Revision D, dated May 11, 2010, including Appendix A, Revision A, dated October 18, 2007.

(5) Bombardier Service Bulletin 601R-29-032, Revision A, dated January 26, 2010.

(6) Bombardier Service Bulletin 601R-29-033, Revision A, dated May 11, 2010, including Appendix A, dated May 5, 2009.

(7) Bombardier Service Bulletin 601R-29-035, Revision A, dated December 8, 2010.

(8) Bombardier Service Bulletin 601R-32-106, Revision A, including Appendix A, dated May 11, 2010.

(9) Bombardier Service Bulletin 601R-32-107, Revision B, dated December 8, 2010.

Issued in Renton, Washington, on April 11, 2012.

**John P. Piccola,**

*Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 2012-9477 Filed 4-18-12; 8:45 am]

BILLING CODE 4910-13-P

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### 15 CFR Part 922

## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 1

### Revisions of Boundaries, Regulations and Zoning Scheme for Florida Keys National Marine Sanctuary; Revisions of Fish and Wildlife Service and State of Florida Management Agreement for Submerged Lands Within Boundaries of the Key West and Great White Heron National Wildlife Refuges and Regulations; Intent To Prepare a Draft Environmental Assessment or Environmental Impact Statement; Notice of Scoping Meetings

**AGENCY:** Office of National Marine Sanctuaries (ONMS), National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (DOC) and National Wildlife Refuge System, Fish and Wildlife Service (FWS), U.S. Department of the Interior (DOI).

**ACTION:** Notice of Intent to Conduct Scoping Meetings for the Revision of Boundaries, Regulations and Zoning Scheme for Florida Keys National Marine Sanctuary and Key West and Great White Heron National Wildlife Refuges; and to Prepare an Environmental Assessment or Draft Environmental Impact Statement.

**SUMMARY:** In accordance with the National Marine Sanctuaries Act, as amended, (NMSA) and the National Wildlife Refuge System Administration Act of 1966 as amended by the National Wildlife Refuge System Improvement Act of 1997, the Office of National Marine Sanctuaries (ONMS) of the National Oceanic and Atmospheric Administration (NOAA) and the National Wildlife Refuge System of the Fish and Wildlife Service (FWS) have initiated a review of Florida Keys National Marine Sanctuary (FKNMS or sanctuary) boundaries, regulations and zoning scheme. This review of existing regulations and marine zoning may result in changes to regulations, marine zoning, such as altering boundaries of current zones, creating new zones, or amending the regulations that apply to individual zones, and possibly sanctuary boundaries. The review will also include the FWS's Backcountry Management Plan and associated

regulations, as authorized by the FWS and State of Florida Management Agreement for Submerged Lands within Boundaries of the Key West and Great White Heron National Wildlife Refuges, to evaluate substantive progress toward implementing the backcountry management goals for the refuges.

**DATES:** All comments on issues related to the boundaries, regulations and zoning scheme of Florida Keys National Marine Sanctuary and the agreement for submerged lands within boundaries of the Key West and Great White Heron National Wildlife Refuges and associated regulations will be considered if received on or before June 29, 2012. See **SUPPLEMENTARY INFORMATION** section below for the dates, times, and locations of the public scoping meetings.

**ADDRESSES:** Comments may be submitted by any of the following methods:

- **Federal eRulemaking Portal:** <http://www.regulations.gov>. Submit electronic comments via the Federal eRulemaking Portal, FDMS Docket Number NOAA-NOS-2012-0061.

- **Mail:** Sean Morton, Sanctuary Superintendent, Florida Keys National Marine Sanctuary, 33 East Quay Road Key West, Florida 33040 and Anne Morkill, Refuge Manager, U.S. Fish and Wildlife Service, 28950 Watson Blvd., Big Pine Key, FL 33043.

- **Instructions:** All comments received are a part of the public record and will be generally posted to <http://www.regulations.gov> without change. All Personal Identifying Information (for example, name, address, etc.)

voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information. NOAA will accept anonymous comments (enter N/A in the required fields to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word, Excel, WordPerfect, or Adobe PDF file formats only.

#### FOR FURTHER INFORMATION CONTACT:

Sean Morton, Sanctuary Superintendent, FKNMS, Telephone: (305) 809-4700 x233 or Anne Morkill, Refuge Manager, USFWS, Telephone: (305) 872-2239 x209.

**SUPPLEMENTARY INFORMATION:** In accordance with the National Marine Sanctuaries Act, as amended, (NMSA) (16 U.S.C. 1431 *et seq.*) and the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee) as amended by the National Wildlife Refuge System Improvement Act of 1997, the Office of National Marine

Sanctuaries (ONMS) of the National Oceanic and Atmospheric Administration (NOAA) and the National Wildlife Refuge System of the Fish and Wildlife Service (FWS) have initiated a review of Florida Keys National Marine Sanctuary (FKNMS or sanctuary) boundaries, regulations and zoning scheme. Collectively, NOAA and FWS will make revisions to the sanctuary boundaries, regulations and zoning scheme and backcountry management agreement as necessary to fulfill the purposes and policies of the NMSA, the Florida Keys National Marine Sanctuary and Protection Act (FKNMSPA; Pub. L. 101-605), and the National Wildlife Refuge System Improvement Act of 1997 (NWRISA; Pub. L. 105-57). The review is being undertaken in response to several factors, including community interest in examining management and conservation strategies, the need to adapt sanctuary and refuge management to changing conditions such as emerging threats to resources, recent scientific findings showing degraded habitat and how resources may be improved with various long-term management efforts, and legal requirements. More information about this process can be found at <http://floridakeys.noaa.gov/review/welcome.html>.

#### Florida Keys National Marine Sanctuary

The NMSA (16 U.S.C. 1431 *et seq.*) authorizes the Secretary of Commerce to designate and protect areas of the marine environment with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archeological, educational, or esthetic qualities as national marine sanctuaries. Management of national marine sanctuaries has been delegated by the Secretary of Commerce to NOAA's Office of National Marine Sanctuaries (ONMS). Florida Keys National Marine Sanctuary (FKNMS) was designated by Congress in 1990 through the Florida Keys National Marine Sanctuary Protection Act (FKNMSPA, Pub. L. 101-605). FKNMS extends approximately 250 statute miles southwest from the southern tip of the Florida peninsula, and is composed of both state and Federal waters. The sanctuary's marine ecosystem supports over 6,000 species of plants, fishes, and invertebrates, including the Nation's only living coral reef that lies adjacent to the continent. The area includes one of the largest seagrass communities in this hemisphere. The primary goal of the sanctuary is to protect the marine resources of the Florida Keys. Other

goals of the sanctuary include facilitating human uses that are consistent with the primary objective of resource protection as well as educating the public about the Florida Keys marine environment.

The National Oceanic and Atmospheric Administration (NOAA), a federal agency within the Department of Commerce, administers FKNMS. With 60 percent of its protected area located in Florida state waters, the sanctuary is jointly managed by NOAA and the State of Florida under a co-trustee agreement. Under this agreement, NOAA's primary management partner is the Florida Department of Environmental Protection (DEP). Any amendments to the management plan will be submitted and reviewed pursuant to the State of Florida's clearinghouse process. Any amendments to sanctuary regulations require the approval of the Governor on behalf of and with the approval of the Florida Trustees (the Governor and Cabinet of the State of Florida act as the Board of Trustees of the Internal Improvement Trust Fund) in order to be effective in State waters and submerged lands, except for merely editorial amendments, technical corrections, and emergency regulations.

In FKNMS, NOAA regulates the following: Injuring coral; fishing; discharges and deposits; impacts to the seafloor, including from dredging and dumping; discharges of sewage from vessels; vessel operations, including personal watercraft and airboats, that cause injuries to resources, humans or property; anchoring on coral; wakes near residential shorelines; vessel operations near diving/use of dive flags; releasing exotic species; damage to markers, buoys and scientific equipment; injuring historical resources; use of explosives and electric charges; harvest of marine life species except as allowed by the Florida Fish and Wildlife Conservation Commission; and activities in specified zones. Information on sanctuary regulations can be found online at <http://floridakeys.noaa.gov/regs/welcome.html?s=management>.

The types of zones currently in place in the sanctuary are: ecological reserves, sanctuary preservation areas, wildlife management areas, existing management areas, and special-use areas. A more detailed description of sanctuary zones can be found online at <http://floridakeys.noaa.gov/zones/types.html>. In addition, the FKNMS revised management plan is available for download at <http://floridakeys.noaa.gov/mgmtplans/2007.html>.

#### Key West and Great White Heron National Wildlife Refuges

In the Key West and Great White Heron National Wildlife Refuges, the Fish and Wildlife Service (FWS) may implement restrictions to minimize wildlife disturbance and habitat destruction in state waters from non-wildlife-dependent activities under a joint management agreement with the State of Florida for submerged lands. The FWS protects backcountry resources in state waters with limits on access/operation of vessels, jet skis, and air boats; buffer zones; water skiing; and aircraft water landings. The FWS backcountry management plan is available for download at <http://www.fws.gov/nationalkeydeer/backcountry.html>. Additional information about the management goals and objectives for the Key West and Great White Heron National Wildlife Refuges is described in the Lower Florida Keys National Wildlife Refuges Comprehensive Conservation Plan, available for download at <http://www.fws.gov/southeast/planning/CCP/LowerFLkeysFinalPg.html>.

NOAA and the FWS anticipate that completion of the revised boundaries, regulations, zoning scheme, backcountry management plan and concomitant documents will require approximately forty-eight months from the date of publication of this notice of intent. This joint review process will occur concurrently with a public process under the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*). This notice confirms that NOAA and FWS will coordinate their responsibilities under section 106 of the National Historic Preservation Act (NHPA, 16 U.S.C. 470) with the ongoing NEPA process, pursuant to 36 CFR 800.8(a). Therefore, the NEPA documents and public and stakeholder meetings associated with this process are also intended to meet the section 106 requirements.

#### Sanctuary Advisory Council

Sanctuary advisory councils are community-based advisory groups established to provide advice and recommendations to the superintendents of the national marine sanctuaries. Councils also serve as liaisons between their constituents in the community and sanctuaries. Sanctuary advisory councils provide advice about sanctuary operations and projects, including education and outreach, research and science, regulations and enforcement, and management planning. They are particularly critical in helping a

sanctuary during reviews of regulatory actions such as this zoning review. Council members provide expertise on both the local community and sanctuary resources, strengthen connections with the community, and help build increased stewardship for sanctuary resources.

The advisory council for Florida Keys National Marine Sanctuary has recommended the following goals and objectives to the sanctuary superintendent for this review:

A. To improve the diversity of natural biological communities in the Florida Keys to protect, and, where appropriate restore and enhance natural habitats, populations and ecological processes overall and in each of these subregions Tortugas, Marquesas, Lower, Middle, and Upper Keys.

1. Reduce stresses from human activities by establishing areas that restrict access to sensitive wildlife populations and habitats.

2. Protect large, contiguous, diverse and interconnected habitats that provide natural spawning, nursery, and permanent residence areas for the replenishment and genetic protection of marine life and protect and preserve all habitats and species.

3. Improve/maintain the condition of the biologically structured habitats including:

a. Coral Reef

- i. Inshore Patch Reef
- ii. Mid-Channel Patch Reef
- iii. Offshore Patch Reef
- iv. Reef Margin/Fore Reef
- v. Deep Reef

b. Seagrass Bed

c. Hardbottom

d. Coastal Mangrove

4. Increase abundance and condition of selected key species including corals, queen conch, long spined sea urchin, apex predatory fish, birds and sea turtles.

B. To facilitate to the extent compatible with the primary objective of resource protection, all public and private uses of the resources of these marine areas not prohibited pursuant to other authorities.

1. Minimize conflicts among uses compatible with the National Marine Sanctuary.

2. Prevent heavy concentrations of uses that degrade Sanctuary resources.

3. Provide undisturbed monitoring sites for research and control sites to help determine the effects of human activities.

4. Achieve a vibrant ecologically sustainable ecosystem and economy.

a. Apply the best available science and balanced, conservation based management.

The sanctuary advisory council has also recommended the following guiding principles to the sanctuary superintendent for this review:

1. The regulation/zoning review of Florida Keys National Marine Sanctuary should be conducted with the recognition that there are bordering and overlapping marine management regimes in place, and that these regimes must be considered when contemplating changes to the regulation/marine zoning structure for Florida Keys National Marine Sanctuary.

2. All areas of Florida Keys National Marine Sanctuary should be classified as part of a specific zone, therefore the current "unzoned" area should be classified as a recognized zone type such as "general use area" or "multiple use area".

3. Each habitat type should be represented in a non-extractive marine zone in each of the biogeographically distinct sub regions of Florida Keys National Marine Sanctuary to achieve replication. The subregions identified were the Tortugas, Marquesas, and Lower, Middle, and Upper Keys.

4. Information on resilient reef areas that can serve as refugia should be taken into account in zoning changes.

5. Temporal zoning should be considered as a tool for protecting spawning aggregations and nesting seasons.

6. The size of individual non-extractive zoned areas, the cumulative total area included in non-extractive zones, and their spatial relationship with one another matter greatly in achieving the resource protection purposes of Florida Keys National Marine Sanctuary.

Members of the public are encouraged to contact the current council members who represent their areas of interest, as one of the roles of the members is to serve as a liaison between the sanctuary and members of the community. Contact information for advisory council members can be found at: <http://floridakeys.noaa.gov/sac/members.html>.

#### Review Process

In accordance with Section 304(e) of the NMSA, 16 U.S.C. 1431 *et seq.*, the NOAA ONMS is initiating a review of the sanctuary boundaries, regulations and zoning scheme to evaluate the substantive progress made toward implementing the management plan and goals for the sanctuary. In accordance with Section 4 of National Wildlife Refuge System Administration Act of 1966 (NWRSA; 16 U.S.C. 668dd *et seq.*), the ONMS and the FWS are also jointly initiating a review of the FWS backcountry management plan for the

Key West and Great White Heron National Wildlife Refuges to evaluate the substantive progress made toward implementing the goals and objectives. ONMS and the FWS anticipate drafting revised boundaries, regulations, zoning scheme, backcountry management agreement and concomitant documents as a result of this review. The current management plan for FKNMS was completed by NOAA in 2007. Contained within it is the FKNMS marine zoning action plan. It describes the five types of zones in the sanctuary, goals and objectives for marine zoning, and implementation strategies and actions. This review implements the marine zoning and regulatory action plans and strategies of the current management plan. The current FWS backcountry management plan and associated agreement for the Key West and Great White Heron National Wildlife Refuges was signed in 1992; it may be reviewed and revised every 5 years, although no prior reviews have occurred since the original plan was completed and the associated management agreement with the State of Florida is due to expire in 2017. The FWS, FKNMS and the State of Florida are reviewing the backcountry management agreement for potential revision and renewal.

There are several reasons for undertaking this review:

- Community and sanctuary advisory council interest in reexamining sanctuary management and conservation strategies, expressed during and subsequent to management plan reviews;
- Periodic evaluation of regulations and sanctuary zones ensures they continue to function best for dynamic natural resources and evolving human uses;
- The Florida Keys National Marine Sanctuary Condition Report 2011 shows human actions continue to degrade the habitat and living resources of the sanctuary, but habitat and resources may be improved with long-term management efforts, regulatory compliance, and community involvement;
- Emerging threats to the resources were largely unanticipated when the regulations were first issued and need to be addressed; and
- Reviews of the sanctuary and refuge backcountry management plans are required by law.

The review process is composed of five primary stages:

(1) Information collection and characterization, including public scoping meetings;

(2) Recommendation of the advisory council of Florida Keys National Marine



Sanctuary on revised boundaries, a revised zoning scheme and associated regulations, with possible working groups and public workshops;

(3) Preparation and release of draft revised boundaries, zoning scheme, backcountry management agreement, environmental evaluation, and, if appropriate, regulations or amendments to current regulations;

(4) Public review and comment on the draft boundaries and zoning scheme, proposed regulatory amendments, and other documents mentioned above; and

(5) Preparation and release of final revised boundaries, zoning scheme, backcountry management agreement, environmental evaluation, and, if appropriate, regulations.

NOAA and the FWS anticipate that the completion of the boundaries, zoning scheme, backcountry management agreement and concomitant documents will require approximately forty-eight months.

At this time, NOAA and FWS are opening a public scoping period to:

1. Solicit public comments on the boundaries, regulations and zoning scheme of Florida Keys National Marine Sanctuary; and the submerged lands within the boundaries of the Key West and Great White Heron National Wildlife Refuges and associated regulations; and

2. Help determine the scope of issues to be addressed in the preparation of boundaries, a zoning scheme, a backcountry management agreement, and an environmental assessment or environmental impact statement (EIS), pursuant to the National Environmental Policy Act (NEPA).

To that end, NOAA and FWS will conduct a series of scoping meetings in the Florida Keys and south Florida to collect public comment. These scoping meetings will also help determine the scope of issues to be addressed in the preparation of an environmental assessment or EIS pursuant to the NEPA, 43 U.S.C. 4321 *et seq.* The public scoping meeting schedule is presented below.

#### Public Scoping Meetings

The public scoping meetings will be held on the following dates and at the following locations beginning at 4 p.m. unless otherwise noted:

##### 1. Marathon, Florida

Tuesday, June 19, 2012

Monroe County Government Center, Emergency Operations Center/Board of County Commissioners Meeting Room, 2798 Overseas Highway, Marathon, FL 33050.

##### 2. Key Largo, Florida

Wednesday, June 20, 2012

Key Largo Library, 101485 Overseas Hwy., Tradewinds Shopping Center, Key Largo, FL 33037.

##### 3. Key West, Florida

Thursday, June 21, 2012

Doubletree by Hilton Hotel Grand Key Resort—Key West Tortuga Ballroom, 3990 S. Roosevelt Blvd., Key West, FL 33040.

##### 4. Miami, Florida

Tuesday, June 26, 2012

Florida International University, Modesto A. Monique Campus Graham University Center, Room GC 243, 11200 SW. 8th St., Miami, FL 33199.

##### 5. Fort Myers, Florida

Wednesday, June 27, 2012

Joseph P. Alessandro Office Complex, Rooms 165 C and D, 2295 Victoria Ave., Fort Myers, FL 33901.

#### Consultation Under National Historic Preservation Act

This notice confirms that NOAA and the FWS will coordinate their responsibilities under section 106 of the National Historic Preservation Act (NHPA, 16 U.S.C. 470) with the ongoing NEPA process, pursuant to 36 CFR 800.8(a) including the use of NEPA documents and public and stakeholder meetings to also meet the section 106 requirements. The NHPA specifically applies to any agency undertaking that may affect historic properties. Pursuant to 36 CFR 800.16(1)(1), historic properties includes: "any prehistoric or historic district, site, building, structure or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. The term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria."

In coordinating its responsibilities under the NHPA and NEPA, NOAA and the FWS intend to identify consulting parties; identify historic properties and assess the effects of the undertaking on such properties; initiate formal consultation with the State Historic Preservation Officer, the Advisory Council of Historic Preservation, and other consulting parties; involve the public in accordance with NOAA's NEPA procedures, and develop in consultation with identified consulting

parties alternatives and proposed measures that might avoid, minimize or mitigate any adverse effects on historic properties and describe them in any environmental assessment or draft environmental impact statement.

#### Condition Report

In preparation for this review, NOAA has produced a Florida Keys National Marine Sanctuary Condition Report 2011. The Condition Report provides a summary of resources and their conditions; pressures on those resources; the current condition and trends of water, habitat, living resources; maritime archeological resources; human activities that affect those resources; and management responses to pressures that threaten the integrity of the marine environment. The report serves as a supporting document for the review process, to inform constituents of the current status of sanctuary resources.

An electronic copy of the Florida Keys National Marine Sanctuary Condition Report 2011 is available to the public on the Internet at: <http://sanctuaries.noaa.gov/science/condition/fknms/welcome.html>.

#### Scoping Comments

Scoping meetings provide an opportunity to make direct comments to, and share information with, NOAA and the FWS on the boundaries, zones, and regulations of the entire sanctuary, and the management of and regulations for resources associated with the submerged lands of the Key West and Great White Heron National Wildlife Refuges. We encourage the public to participate and welcome any comments on the scope, types, and significance of issues related to the sanctuary's boundaries and zoning scheme, the FWS's backcountry management plan, and associated regulations. In particular, we are interested in hearing about the public's view on the potential management within specified zones in the sanctuary/submerged lands with the two refuges for the next ten to fifteen years.

**Authority:** This notice is published under the authority of the National Marine Sanctuaries Act, as amended (16 U.S.C. 1431 *et seq.*; 16 U.S.C. 470), the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 668dd *et seq.*); and National Historic Preservation Act (16 U.S.C. 470).

Dated: April 6, 2012.

**Daniel J. Basta,**  
Director for the Office of National Marine Sanctuaries.

Dated: April 3, 2012.

**Cynthia K. Dohner,**  
Regional Director, Fish and Wildlife Service.  
[FR Doc. 2012-9345 Filed 4-18-12; 8:45 am]

BILLING CODE 3510-NK-P

## DEPARTMENT OF THE TREASURY

### Internal Revenue Service

#### 26 CFR Part 53

[REG-144267-11]

RIN 1545-BK76

#### Examples of Program-Related Investments

**AGENCY:** Internal Revenue Service (IRS), Treasury.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** This document contains proposed regulations that provide guidance to private foundations on program-related investments. These proposed regulations provide a series of new examples illustrating investments that qualify as program-related investments. In addition to private foundations, these proposed regulations affect foundation managers who participate in the making of program-related investments.

**DATES:** Comments and requests for a public hearing must be received by July 18, 2012.

**ADDRESSES:** Send submissions to: CC:PA:LPD:PR (REG-144267-11), room 5205, Internal Revenue Service, P.O. Box 7604, Ben Franklin Station, Washington, DC 20044. Submissions may be hand-delivered Monday through Friday between the hours of 8 a.m. and 4 p.m. to CC:PA:LPD:PR (REG-144267-11), Courier's Desk, Internal Revenue Service, 1111 Constitution Avenue NW., Washington, DC, or sent electronically via the Federal eRulemaking Portal at <http://www.regulations.gov/> (IRS REG-144267-11).

**FOR FURTHER INFORMATION CONTACT:** Concerning the proposed regulations, Courtney D. Jones at (202) 622-6070; concerning submissions of comments and requests for a public hearing, Oluwafunmilayo Taylor, (202) 622-7180 (not toll-free numbers).

#### SUPPLEMENTARY INFORMATION:

##### Background

Section 4944(a) of the Internal Revenue Code (Code) imposes an excise

tax on a private foundation that makes an investment that jeopardizes the carrying out of any of the private foundation's exempt purposes (a "jeopardizing investment"). Section 4944(a) also imposes an excise tax on foundation managers who knowingly participate in the making of a jeopardizing investment. Section 4944(b) imposes additional excise taxes on private foundations and foundation managers when investments are not timely removed from jeopardy.

Generally, under § 53.4944-1(a)(2), a jeopardizing investment occurs when, based on the facts and circumstances at the time the investment is made, foundation managers fail to exercise ordinary business care and prudence in providing for the long- and short-term financial needs of the foundation. The determination of whether an investment is a jeopardizing investment is made on an investment-by-investment basis, taking into account the private foundation's entire portfolio. In exercising the requisite standard of care and prudence, foundation managers may take into account the expected investment return, price volatility, and the need for portfolio diversification.

Section 4944(c) excepts program-related investments ("PRIs") from treatment as jeopardizing investments. The regulations under section 4944(c) define a PRI as an investment: (1) The primary purpose of which is to accomplish one or more of the purposes described in section 170(c)(2)(B); (2) no significant purpose of which is the production of income or the appreciation of property; and (3) no purpose of which is to accomplish one or more of the purposes described in section 170(c)(2)(D) (attempting to influence legislation or participating in or intervening in any political campaign).

An investment is made primarily to accomplish one or more of the purposes described in section 170(c)(2)(B) (referred to as "charitable purposes") if it significantly furthers the accomplishment of the private foundation's exempt activities and would not have been made but for the relationship between the investment and the accomplishment of those exempt activities. In determining whether a significant purpose of an investment is the production of income or the appreciation of property, § 53.4944-3(a)(2)(iii) provides that it shall be relevant whether investors who are engaged in the investment solely for the production of income would be likely to make the investment on the same terms as the private foundation.

The regulations under other Code sections in Chapter 42 accord special tax treatment to PRIs. For example, § 53.4942(a)-2(c)(3)(ii)(d) excludes PRIs from the assets a private foundation takes into account when determining how much it must distribute under section 4942 as a "distributable amount" for the taxable year. In addition, § 53.4942(a)-3(a)(2)(i) generally includes distributions that qualify as PRIs as "qualifying distributions" for purposes of meeting the distribution requirements under section 4942. Section 53.4943-10(b) excludes PRIs from being treated as business holdings for the purpose of calculating excess business holdings subject to excise tax under section 4943. Sections 53.4945-5(b)(4) and 53.4945-6(c)(1)(i) also make clear that PRIs will not constitute taxable expenditures under section 4945, provided the private foundation exercises "expenditure responsibility" in circumstances in which it is required to do so. Among other expenditure responsibility requirements, a private foundation must require a written commitment from the recipient of the PRI that the funds received will be used only for the purposes of the program-related investment. As noted, the primary purpose of a program-related investment must be the accomplishment of a charitable purpose.

Section 53.4944-3(b) contains nine examples illustrating investments that qualify as PRIs and one example of an investment that does not qualify as a PRI. The existing examples focus on domestic situations principally involving economically disadvantaged individuals and deteriorated urban areas.

The Treasury Department and the IRS are aware that the private foundation community would find it helpful if the regulations could include additional PRI examples that reflect current investment practices and illustrate certain principles, including that: (1) An activity conducted in a foreign country furthers a charitable purpose if the same activity would further a charitable purpose if conducted in the United States; (2) the charitable purposes served by a PRI are not limited to situations involving economically disadvantaged individuals and deteriorated urban areas; (3) the recipients of PRIs need not be within a charitable class if they are the instruments for furthering a charitable purpose; (4) a potentially high rate of return does not automatically prevent an investment from qualifying as program-related; (5) PRIs can be achieved through a variety of

# Backcountry Management Plan Summary

U.S. Fish & Wildlife Service

June 2012

Florida Keys National Wildlife Refuges Complex

## Backcountry Management Plan



The Florida Keys National Wildlife Refuges Complex is administered by the U.S. Fish and Wildlife Service (FWS), and includes the Key West, Great White Heron, Key Deer and Crocodile Lake National Wildlife Refuges. These refuges represent a collection of low-lying, subtropical islands between the Gulf of Mexico and the Atlantic Ocean that protect all the vital habitats representative of the Florida Keys ecosystem, including the globally imperiled pine rockland forest, hardwood hammock and mangroves, and nearshore marine waters.

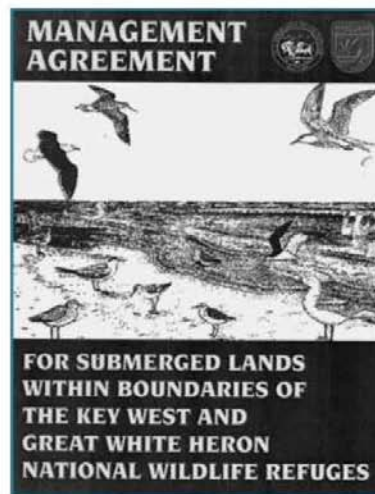


Key West and Great White Heron National Wildlife Refuges were created in 1908 and 1938, respectively, for the purpose of preserving breeding grounds for colonial waterbirds and other wildlife. Many species of birds nest and roost in the mangroves and on the sandy beaches, and forage or roost along the tideline and shallow seagrass flats. Key species of interest include the great white heron, reddish egret, little blue heron, white crowned pigeon, brown pelican, piping plover, roseate tern, magnificent frigatebird, bald eagle, peregrine falcon and osprey. The backcountry islands are also used by sea turtles for nesting on sandy beaches.



While the FWS has full federal authority to regulate public access and activities on all refuge-owned islands

above the mean high tide line, the waters and submerged lands below the mean high tide line seaward are owned by the State of Florida and managed by NOAA as the Florida Keys National Marine Sanctuary. In 1992, FWS entered into a management agreement with the State that applied federal regulations within state waters to minimize wildlife disturbance and habitat damage from non-wildlife-dependent recreational activities, consistent with the laws and policies of the National Wildlife Refuge System. That management agreement is commonly known as the **Backcountry Management Plan**.



The **Backcountry Management Plan** was developed following the dramatic increase in residential growth and tourism in the Florida Keys in the 1980s, which resulted in a rise in recreational and commercial use of the nearshore marine waters surrounding refuge islands and associated activities on the islands themselves. The growing popularity of shallow-draft vessels, particularly personal watercraft (PWC or jet skis), made previously inaccessible shallow water areas and tidal flats susceptible to adverse impacts caused by an increasing number of people in the backcountry. That led to an alarming rise in wildlife-human interactions, involving disruption of roosting, foraging, and nesting activities by birds and sea turtles for which the National Wildlife Refuges were originally established to protect.



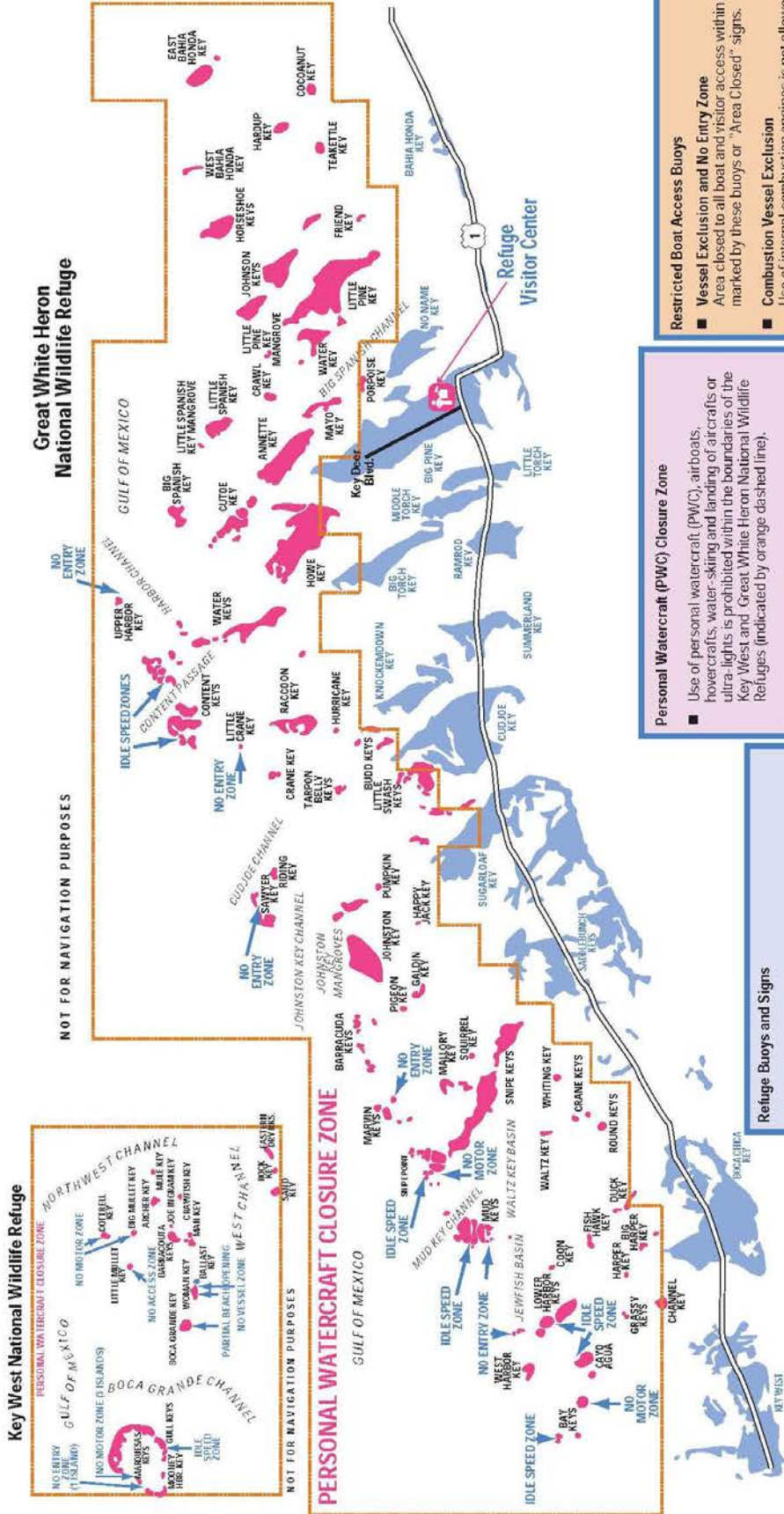
To curtail such impacts while also allowing traditional uses such as fishing, boating, and diving under State and Sanctuary regulations, vessel exclusion zones were designated throughout Key West NWR and most of Great White Heron NWR where personal watercraft, airboats, water skiing, hovercraft, and aircraft landings are prohibited. Special buffer zones with idle speed, no motor, or no entry areas were also established near sensitive wildlife.



When the Florida Keys National Marine Sanctuary was created in 1990, NOAA adopted the Refuges' specific place-based restrictions identified in the Backcountry Management Plan and designated those as zones called Wildlife Management Areas. NOAA also adopted the prohibition of personal watercraft and other vessel types within the Key West and Great White Heron Refuges. This joint management approach supplements existing Refuge authorities with State and Sanctuary regulations and facilitates the comprehensive protection of natural resources.

For more information, contact:

Florida Keys National Wildlife Refuges  
28950 Watson Blvd.  
Big Pine Key, FL 33043  
(305) 872-2239  
keydeer@fws.gov  
<http://nationalkeydeer/backcountry.html>



**Refuge Buoys and Signs**

- Buoys and signs are used to mark no entry, no motor and idle speed zones. Buoys are placed in areas important to wildlife and for human safety.
- Follow the directions on the buoys
- These are not mooring buoys—do not tie-up to them.

**Personal Watercraft (PWC) Closure Zone**

- Use of personal watercraft (PWC), airboats, hovercrafts, water-skiing and landing of aircrafts or ultra-lights is prohibited within the boundaries of the Key West and Great White Heron National Wildlife Refuges (indicated by orange dashed line).
- A personal watercraft is defined as a State of Florida Class A-1 vessel, shallow-draft, jet-drive watercraft operated by standing, sitting or kneeling on or behind the vessel (in contrast to a conventional boat where the operator stands or sits inside the vessel). Propeller driven boats, row boats, kayaks, canoes and sail boats are permitted. Other state and federal regulations still apply.

**Restricted Boat Access Buoys**

- **Vessel Exclusion and No Entry Zone**  
Area closed to all boat and visitor access within areas marked by these buoys or "Area Closed" signs.
- **Combustion Vessel Exclusion**  
Use of internal combustion engines is not allowed within areas marked by "No Motor" buoys.
- **Idle Speed Zone**  
Watercraft must operate at no greater than idle speed within areas marked by "Idle Speed" buoys.

## Comment Categories

- Administration
  - Adaptive Management
  - Aids To Navigation
  - Displacement EffectsD
  - Education
    - Brochures
    - Maps, Charts, Signs
    - Public Service Announcements (PSA's)
    - Technology / Social Media / Web
  - Enforcement
  - Greening Operations
  - Oppose - General
  - Permitting
  - Regulations
  - Research and Monitoring
  - Scientific Basis
  - State and County Management
  - Support - General
  - User Fees
- Artificial Habitat
  - Lobster Casitas
  - Wrecks and Ships To Reefs
- Boundary
- Coastal Development
- Coral and Reef Restoration
- Fishery
  - Bait
  - Catch and Release
  - Lobster / Crab
  - Goliath Grouper
  - Jewfish
  - Mutton Snapper
  - Education
  - Sponging
- Invasive / Non-Native
- Nursery and Spawning Aggregation Protection
- New or Modified Sanctuary Preservation Areas and Ecological Reserves
- Seagrass Protection
  - No Access / No Motor / Buffer Zones
  - Pole Troll
  - Wildlife Management Areas (WMAs)
- Submerged Cultural Resources
- User Conflicts
  - Diving and Snorkeling
  - Kayaks
  - Personal Watercraft (PWC) Issues:
  - Personal Watercraft (PWC) Suggested Strategies and Tools:
- Water Quality
  - Live Aboards
  - Marine Debris
  - Pump Out
- Wildlife Protection
  - Kayaks
  - Personal Watercraft (PWC)
  - Turtles
  - Wildlife Management Areas (WMAs)

# Categorized Comments

## Administration

### Issues:

- Many of the current resource and management issues of concern are not new, but have been discussed for many years, and some problems pre-date the establishment of FKNMS and current management plans of the FWS refuges.
- The FKNMS is a unique area not only because of its natural resources, but also because of the number of agencies that cooperatively share management authority for this area and its resources. The FWC is proud to be a partner of this cooperative management team, and is prepared to assist the Sanctuary and the FWS as you move forward with the Management Plan revision process.
- Sanctuary needs to focus more attention to ecological restoration on a sanctuary wide scale.
- Ecosystem preservation should be the priority. Not to lose sight of bigger picture such as climate change and water quality.
- Of the seventeen questions in the 2011 sanctuary condition report used to rate the conditions and quality trends, only one is identified as “Good” and one as “Good/Fair”. Of the remaining fifteen, eleven are “Fair/Poor” or “Poor.” This management plan review should focus on improving sanctuary conditions and quality.
- Young people have never seen the reef in its pristine state, which is a crying shame, and it has been a source of considerable heartfelt stress to watch the reef die “on my watch: during the last 30 years.
- Commenter (resident since 1998) is less and less eager to scuba dive and snorkel the world’s third longest coral reef, even in our Sanctuary Preservation Areas like Looe Key. The deterioration in the reef I have seen in just the short time I have lived here feels like I am visiting a graveyard. Stands of what used to be beautiful coral formations are now algae covered rocks. Great schools of large, beautiful tropical fish have dwindled – their numbers being even further threatened by invasive species like the lionfish. How the level of protections that have allowed this to happen helps the economic interests we all seem to be so concerned about, I don’t know.
- I do not like the format used to gather comments. First the background noise from other groups made it hard to hear the format was designed to prevent interaction of all user groups by separating them, I want to hear what everyone says and who they are. The meeting format was designed to prevent any "excitement" and lull users into a false sense of participation and security, so that the council gains trust right down to not having any "coffee or caffeine " at the meeting.
- The fact that the meeting failed to discuss the Don DeMaria plan for another large closure by saying it was a "submitted" comment shows the intention of the council to "not to show their hand" actual transparency doesn't exist. Does the council know that in the area proposed Don has AQUACULTURE LEASES??? you loaded the input circles with council members which went into public comment, they were used to help direct input and color the comment outcome speaking of color, all the yellow shirts on your staff helped to id them but also on initial entry to the meeting I felt it was a psychological show of "force" and reminded me of a "security presence". btw that color was unflattering, but that’s a unimportant point.
- In advertisements re the meeting almost always the time of the meeting was omitted. if the ads had said "come comment on mini season" you couldn't have gotten another person in the room even making sure each facilitator had a female was another ploy, most commenters aren't going to shout at a girl esp a pregnant one and you wonder why people don't trust the councils or feel their input is wasted time ? I certainly hope the decisions the council makes will prove me wrong in the future, but right now I feel like you tried to sell me a used car.
- Despite the local knowledge and apparent concern, we are not doing enough to protect this fragile ecosystem – and commenter is especially concerned that despite its wisdom in creating the FKNMS, Congress especially fails to appreciate what it takes to maintain this important environmental economic resource by providing the necessary resources and support to do so.
- "Present philosophy seems to be that development is bad and should be stopped. When the reality is that development is the most likely solution. So it is actually the source of environmental

protection and perpetuation. Remember, in the final analysis we all lose if we lose our environment. So let's be smart about how we preserve it."

- Support continued emphasis of the purpose of the Reserves and Refuge to protect nesting birds, key deer, seagrass and other habitat critical to Threatened and Endangered species.
- Protecting biodiversity and unique habitats is especially critical for nearshore and shallow water habitats that have long been virtually ignored.
- There are very important requirements on the FKNMS to manage marine resources extending to the mean high water line (and beyond for refuge islands) and much of the degradation of the FKNMS in recent years is a result of poorly managed or ignored shoreline activities.
- NOAA and USFWS must find the money to clean up the water, and find the money to hire more law enforcement officers.
- The fundamental responsibility in establishing Goals and Objectives for the zoning and regulatory rules of the Florida Keys National Marine Sanctuary is to pass on to future generations a sanctuary that reflects as closely as possible the Florida Keys that would have existed in the absence of civilization.
- The most fundamental aspects of our National Marine Sanctuary are not working and sanctuary regulations allow significant impacts to take place: fish stocks have declined dramatically, coral reefs are dead and dying, and water quality has declined (once clear waters are now green), the fish have gotten smaller, live corals are increasingly rare, and by all measures, the environmental quality of the Keys continues to decline; visiting fishermen are permitted to kill a wide array of marine life, including fish spawning aggregations, using increasingly sophisticated technology. Shifting baselines ensure Keys newcomers do not appreciate the decline in overall environmental health, and pressures on the environment and marine resources are only increasing.
- Need a metric that establishes what our wildlife sanctuary would look like if it were pristine. Establish metrics for a pristine ecosystem. When shutting down areas for whatever purpose, need to establish metrics for that process; have measurable goals. People are more able to put up with the inconveniences of it if they knew the what, why, reasons. Measurable goals, circumstances, time.
- Communicate a clear set of indices to the public would help programs for research, restoration, protection and other purposes. A description of the present condition; a statement of the goal of the action; and, especially a fixed and limited time line would help the public understand why the actions are being taken.
- Establish firm metrics of management - What's pristine?; Establish baseline for benthic habitat; as metrics for project: where do we want to get to? Where do we stand/ What is the timeline?
- The FWC understands that the FKNMS intends to revise the Management Plan in a fully transparent manner, and we strongly support this approach. This will ensure that management alternatives are fully explored and evaluated in a cooperative manner with State of Florida agencies, the FWS, the Sanctuary Advisory Council, Gulf and South Atlantic Fishery Management Councils, and other interested stakeholders before releasing a draft plan for agency and public review. Accordingly, the FWC recommends that the Sanctuary produce three versions of the management plan revision document for agency and public review – a preliminary draft, a draft, and a final. This will allow for greater flexibility to incorporate ideas as they are developed and refined, and make corrections and clarifications as deemed necessary. This will also facilitate FKNMS and FWS evaluation of coastal zone consistency and State of Florida review for concurrence.
- We would like to remind the FKNMS that FWC staff participation in the process does not ensure that FWC Commissioners will ultimately choose to adopt management alternatives recommended by FWC staff for the Sanctuary. For this reason, the FWC also recommends that Sanctuary and FWS staff provide periodic updates directly to FWC Commissioners (during scheduled FWC meetings) to allow for their concerns or recommendations to be considered as early in the process as possible.
- There are some fundamental challenges that the sanctuary review process should address.

- The public has come to view the establishment of any new zone or regulation as a permanent change in the sanctuary. Hence each and every proposed change is accompanied by a “fight to the death” discussion and debate. That makes it difficult for the sanctuary to respond to new and/or temporary needs.
- The wildlife doesn’t read the regulations. And wildlife will change its habits according to stimuli that we understand only after the fact. Tarpon, for instance, are specie that has existed for tens of millions of years. The habits of Tarpon over the past two hundred years represent only the blink of the eye in its history.
- There are no clear benchmarks for measuring the success of any zoning that is adopted. This is important for evaluating the efficacy of new regulations and for enlisting public support for both the ends and means of any revised regulation.
- Most people want to be responsible users of resources.
- The FWC supports responsible efforts to protect Florida’s fish, wildlife, and their habitats, while also ensuring that boaters have broad access to waters within the state. FWC staff observed that watersports (skiing, etc.), personal watercraft (PWC), and airboats are prohibited on some waters within the Sanctuary (specifically, the Great White Heron and Key West national wildlife refuges). Due to changes to personal watercraft technology (most now use four-stroke engines and have greatly reduced noise levels and emissions) and State laws (such as required use of a safety flag and exhaust mufflers) pertaining to airboats, the FKNMS should re-consider these prohibitions and possibly allow expanded use of these public resources. Keeping recreational boating as safe and enjoyable as possible is important, as is protecting our environment, but we encourage the exploration of amending FKNMS regulations to allow for more reasonable use and access to waters within the Sanctuary for watersports and all vessel types.
- Concerned about closing areas for commercial and recreational use. Like education via showing people, in person, the resources here. It will increase people caring about the resources. It is important to have people in nature preserves. Don’t limit commercial operators bringing people to the resources.
- The sanctuary needs to bring in more resources to oversee the sanctuary. Get income from the users that use the sanctuary.
- Ecotourism is obtainable and there are ways to do it properly. To make tourists aware of the backcountry is beneficial, as they then want to ensure that those resources are protected. There are a lot of different ways to do ecotourism. There are many ways to balance stewardship and making a living.
- I disagree with objectives of having a closure for each habitat type for each region. (See A2)
- “Non-extractive zone” needs to be clearly defined. What does it mean? What is not to be extracted?
- Clearly define what prop dredging is. Ex: lobster boat going out – prop will blow silt out on low water. Define prop dredging vs. prop turbidity (resuspension of sediments)
- Concerned that this will change multiple use zones to closed zones, in effect creating marine easements.
- Too many users for the ecosystem to handle.
- In the sanctuary there needs to be a place for humans, especially a place for humans to fish.
- FKNMS and USFWS should join forces with Monroe County and other interested parties to evaluate the likely impacts of sea level rise on today’s marine, intertidal and terrestrial natural areas as well as the ramifications of submersion of today’s built environment. Proactive terrestrial management, restoration and even land acquisition become the FKNMS’s business as the sea encroaches on the land. The same can be said for legacy pollution (e.g. Keys landfills, underground storage tanks, etc.) and artificial materials (e.g. concrete, asphalt, etc.) which will become the Sanctuary’s problem if they are not dealt with prior to submersion.
- We can all agree that Key West is a tourist destination and the great majority of those that visit want to get out on the water. Not all of them want to do the same thing, and we should continue to allow this diversity of activities for our guests as this diversity of offerings helps attract families, single travelers and various cultural and ethnic groups.



- Natural coral reefs contribute some \$375 billion in goods and services to the world and according to a 2000 report from the World Resources Institute, coral reefs in the Caribbean alone contribute \$2.1 billion for dive tourism.
- According to the Socioeconomic Study of Reefs in Southeast Florida (October 2001, Florida Fish and Wildlife Conservation Commission, National Oceanic and Atmospheric Administration, in association with Florida State University), reef-related expenditures generated over \$4.395 billion in sales in Palm Beach, Broward, Miami-Dade and Monroe Counties combined, during the 12-month period from June 2000 to May 2001. These sales resulted in generating \$2.047 billion in income to Palm Beach, Broward, Miami- Dade, and Monroe County residents during the same time period. According to the same study, during the same period, reef-related expenditures provided 71,300 full and part-time jobs in these four southeast Florida counties. Two-thirds of the economic contribution was associated with natural reef-related expenditures in Miami-Dade and Palm Beach Counties, seventy five percent of the economic contribution was associated with natural reefs in Monroe County, and about fifty percent was associated with natural reefs in Broward County (See EXHIBIT C – Economic Contribution of Reef-Related Expenditures in Four Florida Counties).
- Providing more than \$6 billion dollars in annual revenue and supporting more than 71,000 jobs in South Florida and the Florida Keys (NOVA Southeastern University 2012 Assessment), coral reefs and the FKNMS are vital to our economy and financial stability.
- The very small extent of specially managed areas in the Keys has always been a concern from a resource protection standpoint but recent monitoring of the value of these zones in protecting habitats and restoring fish populations argue strongly for expanding managed or zoned areas to protect public resources.
- Most people will agree that whether it comes from the federal government, the state, the sanctuary, the U.S. Coast Guard, Florida Fish and Wildlife, county or city, we are being regulated to death and our economies are suffering because of it. You cannot save the environment without our money and there will not be any money if our economy is not strong and we don't have jobs.
- The Refuge management plan's focus on protecting wildlife while recognizing historical uses of the ecosystem creates a highly functional refuge.
- I do not support the idea of a new no take zones due to the firm believe that they do not serve the intended purposes and the science surely demonstrates this pretty clearly in my analysis as a professional practicing marine scientist.
- For "no-take" areas where habitats and species are of concern, NOAA should change the definition of "no-take" to allow for selective management (e.g., an area designated for grouper restoration should allow the targeting of other species). Where "no-take" areas are used to eliminate user conflict the rules should remain.
- Develop a team to address Gulfside Banks:
  - protect them as WMAs due to the extent to which they support diverse assemblages of corals, sponges, macro-algae, and seagrasses;
  - death by a thousand cuts from boater impacts;
  - identify, mark and keep boaters off of them, and consider the aesthetics and long-term maintenance of buoys or similar infrastructure;
  - look at examples of bank protection and management from Lignumvitae State Park, Cannon Patch, and Robbie's Marina (Lower Matecumbe Key, upper Keys) - Robbie's "outlined" it's highly visible SG bank with buoys to keep rental and visiting boaters off;
  - protect all of Old Sweat Bank, and Red Bay Banks (bayside 7-mile bridge), and consider using a "fence" of spar buoys to encircle Red Bay Bank areas (like that at Rodriquez and Tavernier Key banks);
  - consider an adopt-a-bank program to carry the long-term management commitment (similar to mitigation plan strategies NOAA is currently discussing with HOA groups for protection of nearshore marinas, canal and channel systems), and/or, perhaps a donation/mitigation fund to pay for contracted management/protection.

- Align the Key Largo EMA boundary with Pennekamp and State boundaries as there are a few different sets of coordinates (original, 1997 Management Plan), and the original coordinates did not line up with Pennekamp, with overlap in some places and gaps in others.

Suggested Strategies and Tools:

- Use historic aerial imagery in the regulatory/zoning review to develop a historical framework of both human impacts and a view of the historical ecology of the Keys – the non-profit Coastal Resources Group, Inc. has used this information in legal proceedings, including on behalf of the federal government, and would like to provide documents and historical perspective related to the review and development of a historical framework of both human impacts and a view of the historical ecology of the Keys.
- I like things the way they are.
- Pay more attention to the impacts of development activities on shorelines of developed islands and expand NOAA’s authority and responsibility to protect and manage these critical areas.
- Use ecosystem based management approach – don’t just focus on commercially and recreationally important species.
- More creative thinking on management of resources from government. Especially looking far into the future of sanctuary management.
- People have a right to access refuge islands, so the refuge shouldn’t close all areas to visitors.
- The Refuge needs to be proactive with wildlife protections.
- Use a top down approach to creating regulations; use the Wilderness Act and Refuge Improvement Act to make/justify regulations.
- Improving the zone management plan presents a rare opportunity (not likely again for at least 10 more years) to take action that will have lasting benefits toward protecting the Florida Keys ecosystem from immediate and future impacts, and protecting future economic interests of local residents.
- NOAA and USFWS should consider flexible zones to address over fishing concerns, aquaculture, restoration, spawning season closures, and unanticipated resource issues.
- Every effort should be made to consider input from the public.
- NOAA must greatly expand and connect the sanctuary marine zones, especially North and South Tortugas, and ideally should design the sanctuary on the same model President Bush used for Hawaii when he left office.
- NOAA and USFWS should create a special unit to reduce poaching and other illegal activities.
- Boats should be confiscated from drunken boaters and they should incur the same penalties as drunken drivers, including losing their drivers license.
- Although we need to protect our environment, instead of increasing no-take zones, NOAA and USFWS should find a positive solution for both sides of the argument and focus on the big picture issue of water quality because: increasing no-take areas will make it more difficult or impossible for too many hard working locals (who should be commended for providing products for local markets and restaurants) and their families to earn a living; and by fixing the water quality problem everything else will fall into place.
- Do not deregulate Wildlife Management Areas.
- NOAA and USFWS should provide easier access to meetings via Skype, or different hours.
- The Sanctuary Advisory Council should communicate more with the charter captains, guides, and recreational boaters who are on sanctuary waters on a regular basis.
- For Sanctuary Council, equal representation throughout the sanctuary and small representation zones
- "Instead of large no take zones, the FKNMS should consider allowing special use areas that do not interfere with what we are trying to protect."
- The FKNMS should focus the science and research on more species, not only the fish of economic importance.
- Limited entry should be considered for all recreational users: boating, fishing, diving, and personal water craft.

- USFWS should provide clear markers/buoys for the refuge boundaries, and require tour operators to educate guests about these boundaries.
- Activities truly deemed harmful to our resources must be attended to, but If NOAA and USFWS shut down or greatly reduce certain activities this will impact tourism and significantly increase unemployment, so the agencies must strike a balance while giving all activities equal consideration (i.e., no preferential treatment).
- "Main concern: no expansion (or creation of new) of no-take zones"
- If NOAA has preliminary maps or thoughts on where they want larger or additional closure areas, the public needs to see them.
- "Establish more no-take marine reserves strategically placed throughout the sanctuary to maximize benefits to all resources."
- "Limited protection areas to a specific percentage of total area"
- "No more protected area's until current locations are sufficient"
- "Limit use areas"
- "More idle only zones to protect coastal environment."
- "Time restrictions on closed areas"
- "Open wildlife refuge to the coordinates given please: 1) 24° 36.207 N, 81° 51.719 W; 2) 24° 33.317 N, 81° 50.064 W; 3) 24° 32.00 N, 81° 51.214 W; 4) 24° 32.00 N, 81° 45.281 W; 5) 24° 36.207 N, 81° 42.839 W"
- Cooperative management methods are the keys to success. Merging science, anecdotal information, hands-on experience and real-time understanding of the issues always seems to achieve goals quicker. Our Sanctuary Advisory Council is one of the finest advisory groups ever assembled anywhere and provides valuable insight. In addition to this initial scoping process, it is of paramount importance to keep interested parties involved in the process and to convene special workshops where needed to find answers on specific issues.
- The FKNMS and the SAC need to re-align their principles, goals and objectives to meet what the community/stakeholders need and want. "Support for large contiguous no take zone is not a representation of what the people want in all areas of the Florida Keys.
- It is heartening to realize that despite our differing points of view and areas of involvement, SAC members seem to have consensus on the need to protect the marine resources here and collectively recognize the need for that protection in the oceans in general, since the inherent interconnectivity creates wide ranging impacts. It is also heartening to hear in the scoping meetings from so many people who live and work here about how important environmental preservation was to them and how clearly they recognized that their use of the resources as part of their livelihoods depended on it.
- Any new decisions made need to be based on the sanctuary council's goals and objectives. No under the table, whispering, etc. The process needs to be transparent and take into consideration everything the public (those affected) provides as comments"
- NOAA should not close areas prior to actively fixing the sanctuary's biggest problem, which is water quality (including water entering the sanctuary from outside) continually degrading corals and other benthic resources, because doing so puts undue and unneeded burden on the stakeholders for no net positive return of the benthic resources - science shows that closing areas in the sanctuary will have no positive impact on reducing or reversing the decline of corals and sponges.
- Instead of large no-take zones, NOAA must consider allowing in all areas uses that do not conflict with the primary resources we are attempting to protect. If the goal is to protect Sea turtles, conchs and apex predators then uses that do not conflict with protecting those resources should be allowed: diving, snorkeling, lobstering by hand and trap, marine life collections, and perhaps hook and release fishing.
- "When creating new zones the FKNMS should take into consideration the other parks on and in its borders and what types of fisheries are restricted from those areas already which is the #1 principle stated by the FKNMS."

- No takes zones should be limited in size to achieve the needed goals while taking the least amount of area because they displace fishermen from the no take area, pushing them on top of other fishermen in surrounding areas and creating more pressure and impacts on and potentially degrading those surrounding areas/reefs.
- Since basically all forms of commercial fishing are now regulated and limited entry, NOAA should look toward the unlimited entry uses that are growing and unrestricted to growth and find a way to make sure they are not a problem in the next 10 to 20 years, such as considering limited entry permits for all commercial users: fishing, diving, charter, PWC, and others.
- Temporal closures should be studied to a much further extent before being approved.
- "Where possible restrictive zoning should be made temporal to have the greatest positive effect on the resource while the least negative impact on the user groups."
- "No temporal closures, the sanctuary needs to allow fisheries management to regulate fisheries, they have public participation and input, something this circumvents, removing the public's and users' rights to the resource."
- Consider having temporal marine zones to reduce stress on the reefs from concentrated human activities. For example, close Rock Key SPA from all activities for two years, while keeping Eastern Dry Rocks SPA open. After the two years, reopen Rock Key SPA and close down Eastern Dry Rocks SPA from any human activities.... or something like that. The temporal scale can be seasonal and/or conditional.
- Permanent area closures transfers the effort to other areas (closures don't accomplish purpose). Temporal closures better.
- "Recognize resilient habitat types and protect them. Protection of coral reefs and/or other habitat such as seagrass beds that demonstrate resilience to environmental stresses (e.g., bleaching) is critical."
- "Recognize resistant habitat types against ecological impacts (pollution, storms, bleaching, etc) and protect them. Resistant habitat types can be but not limited to well-flushed reefs, and/or reefs with dense seagrass meadows."
- Ensure all types of ecosystems and habitats within the sanctuary are adequately represented in restricted marine zones, and consider:
  - biodiversity composition;
  - habitat types and distribution (seagrass beds, patch reefs, fore reefs, inshore and offshore reefs, etc.);
  - major reef zones;
  - habitat-to-habitat life-stage shifts of species.
- Then, consider having multiple restricted zones of the same or similar habitat types to protect marine resources. (Three (or more if possible) replication of each habitat type will be nice. If one fails, we still have two to protect.)
- When reviewing marine zoning, consider connectivity of the reef ecosystem, including seagrass beds, mangroves, currents, watershed, spawning and nursery grounds, and migration routes.
- Increase protection of the continuous coral reef tract that unites FKNMS, Dry Tortugas National Park, Everglades National Park, and Biscayne National Park, using management tools including: more no-take reserves and other zones that reduce or eliminate artificial impacts on coral reefs; increased enforcement of current and proposed protected zones. The reef tract must be given the best and highest levels of protection given its ecological and economic importance (e.g., to angling, diving, and ecotourism), and to provide resiliency to climate change.
- Sanctuary management, with many different state and federal agencies involved, has shown the importance of setting aside jurisdictional boundaries to best manage the sanctuary. This same approach is warranted for the single coral reef tract stretching west of the Dry Tortugas National Park (DTNP) to Biscayne National Park (BNP) at the northern boundary, with FKNMS and Everglades National Park (ENP) in between; sanctuary management should work closely with DTNP, ENP, and BNP to develop ecosystem-level management of this shared ecosystem.
- When revising the FKNWR Backcountry Management Plan (BMP) as part of the Zoning and Regulatory Review Process, USFWS should:

- ensure proposed regulations, including closed areas, are fully supported by the best available scientific evidence;
- refresh proposed management zones using GIS mapping and current data on sea turtle nesting and bird nesting/use;
- consider using creative measures to manage access such as "no motor" zones in lieu of outright closures to accommodate shallow water fishermen in many areas;
- account for the many areas formerly regulated under the BMP that no longer require protection due to changes in landscape (e.g., hurricanes have wiped out some areas);
- avoid creating un-workable management scenarios by considering the reality that people live and play in the Florida Keys and have used and will continue to use popular areas such as Boca Grande, Snipe Point, Marvin Keys, and Content Keys.
- "Naval Air Station (NAS) Key West looks forward to participating in this process to ensure the Navy's capability to adequately support mission essential military training and operations are maintained within the FKNMS and the Wildlife Refuges of the Florida Keys. Areas of interest we look forward to working with you on include:
  - Military special operations training;
  - Maintenance and repair of manmade in-water structures; and
  - Standoff and altitude restrictions in the FKNMS and Wildlife Refuges for training and Search and Rescue operations.

NAS Key West is committed to responsible environment stewardship and we look forward to working with you in protecting our natural resources and sustaining our military mission."
- NOAA and USFWS should:
  - ensure a thoughtful balance of protection and utilization of resources;
  - retain recreational areas for the benefit and enjoyment of county residents and visitors;
  - maintain boating access to the backcountry and other protected areas from the Dry Tortugas to the Upper Keys, while educating the boating public about the current no-take zones and encouraging a deep respect for the environment;
  - install and maintain markers to help boaters stay in appropriate channels during navigation;
  - not single out any industries with specific bans and/or changes;
  - consider support of the channel widening study for the City of Key West to ensure public safety and maintain a positive revenue source for the Florida Keys.
- Existing regulations have proven to be a good start, reducing user conflicts, offering some layer of protection to natural resources and starting down the path of sustainability, but regulations need to be strengthened, enforcement requires higher priority and protected areas should be expanded and augmented.
- The management emphasis should be on long-term stewardship rather than reducing or relaxing regulations because the long-term economic benefits of various protection regimes (including enhanced enforcement) far outweigh any financial gain that might accrue to private interests such as commercial mass tourism activities.
- "Establish zoning where Alternative Energy Facilities are permitted"
- "Consider catch and release as alternative to no take where appropriate to conditions and if enforcement is possible"
- "Consider using a zoning scheme that would identify all areas of the sanctuary as a zone similar to the Australian model."
- "Identify areas in lower, middle and upper Keys that can be used as new zones to include shore line/mangroves, sea grass, hardbottom and the various coral reef structures as temporal zones with moderate protection as a diverse ecosystem."
- Be consistent with marking (e.g. buoy color), regulations and zoning – 300 ft 'No Access' buffer around specified islands that need such protection.
- Eliminate the zone at Little Crane Key because this island no longer exists after Hurricane Wilma.
- Buoys pull people into places and are difficult to maintain.
- Don't put buoys in channels.

- Boundary markers and no-entry signs might be unnecessary visual pollution.
- Make it clear where users can/can't be with clearly marked refuge boundary markers (especially in KWNWR).
- "Closing areas for no reason. Always telling people what they can't do. Take away half of restrictions there are too many. (Example: antiquities) Let people have fun. Let people pick up a bottle if they want."
- "Like to see accountability measures, specifically NMFS. What are we accomplishing with the closed areas? You take it away and don't give anything back (example: Western Sambo Reserve). What are we getting out of the closure? Deep water closure areas like Riley's Hump shuts down everything to make up for enforcement of a specific crime. Shut down bottom dwelling species not pelagic."
- "Object to complete closure of any area when a reduced bag limit would be an effective measure to protect that species from overfishing as opposed to a complete closure which has a very negative effect on the users. Puts them out of business. (Example: Western Dry Rocks and the editorial explaining Don DeMaria's proposal of a 2 to 3 mile area of closure for mutton snapper)."
- "Any time the Sanctuary establishes a no take zone or restriction you should reduce budget/personnel because there is nothing for you to do out there, like Eastern Sambo. It reduces management/enforcement responsibility so you should need less."
- "Every time they do a closure whether seasonal or an area, they're putting more pressure on other areas or other surrounding species creating an imbalance on the fisheries. Regulate with bag limits instead of closures."
- "If new zones are to be created, they should be somewhere other than the Lower Keys."
- "Don't close down Marvin Key, Sawyer Key, Contents Key, and Boca Grande."
- "Reestablish the natural tidal flows around the islands (e.g. Riviera canal to Garrison Bight, Big Pine canals)"
- "Any new regulations should be balanced by a tradeoff elsewhere. There should be no net negative impact to jobs and economy due to regulation changes. There should be a positive one."
- "There should be rotation of zones: if they worked in one area, open that up and put it elsewhere."
- "More partnerships between government and private sector. Example: consider tour company surcharge per guest that could be used for coral restoration."
- "The FKNMS zoning should be at least as analogous as the Great Barrier Reef Marine Park Authority and Caribbean parks."
- Balance protection of the environment with protections of a person's ability to make an income and feed their families.
- Not impose restriction or M.P.A.s based on Fisheries Management or special interest groups.
- Communicate ways for businesses to support Sanctuary goals and projects. Collaboration among user groups.
- I would like to see government (NOAA, FWC, Mote Marine Lab, etc.) work more closely with snorkel/recreation operators so goals are more congruent, unification of goals. Instead of one policing the other, we can work together. Small businesses can educate tourists about resources. We need more communication between small businesses and government.
- The recreational diving community (locally and nationally) would be willing participants valuable resources to use in the creation and implementation of action plans to enhance the scuba diving experience in the sanctuary through improvements in the sanctuary's condition and NOAA should use focus groups discussions involving dive operators in SE Florida (as well as other knowledgeable scuba industry professionals) or create an adhoc working group as a resource to both the advisory council and sanctuary staff.
- The FWC understands that the FKNMS will be forming workgroups to address specific issues as part of the Management Plan revision process, and that these workgroups will be established by a Core Group in or around September of this year. The FWC requests that Jessica McCawley, Director of the FWC Division of Marine Fisheries Management, be included as a member of the Core Group to assist with workgroup development and identification of appropriate FWC staff to serve on these workgroups.

- Need responsible shared uses of resources (all natural resources).
- Closed areas in back country need to be evaluated for validation for closure. Ex: Crane Key, Wilma Key.
- Supports protecting resources, but don't believe we should restrict use. Concerned about the economy of areas with limited use designations/regulations.
- To have an ultralight aircraft landing area in the backcountry near Marvin Key. (See online comment and maps)
- It is important to have the backcountry open and accessible to all watercraft and can be accomplished through proper education, so that everyone will be able to experience it and learn to protect it.
- The number of cruise ships needs to be limited.
- Keep traditional uses in the zones, like catch-and-release in all areas, especially at Boca Chica.
- Don't let eco-environmentalists unduly influence the zone and regulatory review.
- Promote regulatory environment where the public and private sectors are treated with balance and fairness.
- Open Non-sensitive Island like the south beach side of Woman Key for everyone to go to for public and commercial activity.
- Limit the number of participants in any user group in the sanctuary to make a better experience and for safety.
- Rotate zones for different users, example-have diving and fishing alternate back and forth.
- Keep Snipe, Marvin and other popular areas open.
- Allow access for those who have legit commercial licenses.
- Do not want expansion of no take zones
- The refuge model should be used as a pattern for future management plans for all the keys, taking into account historical uses.
- Create multi use zones that allow users to utilize marine resources that are available to us while not conflicting with primary conservation objectives.
- Consider there are two other national parks with different rules and regulations that are directly adjacent to FKNMS.
- Have smaller protected areas rather than one (new) large protected area.
- Concern about effects on diving, fishing and other industries that rely on marine resources in FKNMS by creating more restricted areas.
- We cannot do anything about global warming or climate change. So, focus on something else such as what we can fix now.
- Alternatives to closures should be examined. Balance is important and fishing is a way of making a living. The Chamber (Marathon) doesn't want to see all closures. Protected areas aren't doing better than open ones.
- If manipulative research on active restoration techniques is not allowed in Research Only Areas then establishment of new "Restoration Research Only Areas" where such manipulative experiments will be allowed should be considered.
- Consider the creation of restoration zones where restoration is the primary activity. See "Ecosystem-Scale Restoration," below.
- The FKNMS should include research areas which are no-take zones. As noted in the significant accomplishments of the FKNMS Management Plan, research and monitoring has produced significant scientific data, hypothesis testing, mapping, and trend documentation and the findings from this research should continue being widely disseminated to all concerned parties. No-take zones established for the purposes of research should restrict hook-and-line fishing, spear fishing and other consumptive activities, but should not exclude non-consumptive activities.
- Trends in the extent of various refuge habitats, including on islands, should be documented and monitored to gain information on changes in habitats and the species using those habitats. The physical forces at play on these islands are forcing a variety of changes in habitats, and obviously have been for many years. Now both warming and sea level rise appear to be speeding up these changes.

- To expand the funding opportunities beyond traditional grants and donations, the FKNMS should consider the topic of exclusive/restricted access, through zoning, in the Sanctuary Advisory Council (SAC) working group format with all affected parties at the table. As part of its marine zoning and regulatory review, NOAA's FKNMS should consider at least the following potential options [note: more comment details to be added]:
  1. Update the value charged by NOAA for permitted damage to coral in the FKNMS Code of Federal Regulations (CFR) Chapter 15 section 922.49, which is presently \$1.06 per square centimeter of affected coral. The mitigation fee is typically a condition that is added to construction permits through the use of this letter of authorization that is legally binding.
  2. Establish limited-access reef restoration zones. Whether entirely new restoration zones or existing zones converted to restoration areas, cordon off special restoration sites and allow only permitted or certified restoration practitioners (please see #3 for more details about practitioners) and water usage industry organizations (e.g., dive shops, snorkel shops, recreational and commercial fishing groups) to access the site(s). Restoration practitioners and water usage industry organizations would charge visitation fees for these sites in return for their investment in the restoration efforts.
  3. Develop enabling regulations to help establish a market for ecosystem restoration. Our understanding is that only NGOs are currently permitted for coral nurseries and coral outplanting efforts, and the Sanctuary has been hesitant to consider issuing additional permits because they are comfortable with the number of market entrants. To achieve the scale of activity required for ecosystem restoration, expand the number of participants in the marine ecosystem restoration space.
  4. Consider allowing corals grown through nurseries to be sold through a limited market. As ARRA partnership NGOs have demonstrated, large amounts of coral tissue can easily be grown once nurseries have been established. Current understanding is that all corals grown in Sanctuary-permitted nurseries belong to FKNMS because broodstock corals were collected under a FKNMS permit after the Endangered Species Act (ESA) listing in 2006. Corals can be given away for free (with appropriate permitting), but a sale between a nursery operator and a private third party (e.g., hotel, cruise line, port, dive shop) cannot take place (other than for the three "K" genomes of coral held by CRF for which donations can be accepted). Allowing the sale of corals is a first step in establishing third-party coral mitigation banks, a developing market based solution being considered by NOAA and the U.S. Coral Reef Task Force.
- Make the terminology of zones readily understandable in terms of what they are protecting or doing, and address confusion of terminology in adjacent protected areas (i.e., national parks).
- Additional Special Use Areas, specifically SUA designations other than "Research Only," may address growing user conflicts and high impact activities. These areas may exclude certain activities, or may serve to enclose/encapsulate high impact activities and separate them from other users (e.g., create SUAs for the "party zones?").
- In backcountry areas, NOAA should prohibit commercial activities and manage fishing regulations properly.
- Comments have been made that possible closures to areas such as Snipes Point and Mudd Keys will be part of the upcoming regulations. Further restricting access to such areas is a matter that will directly affect area residents who live in and have to transit through the sanctuary by boat. NOAA should document and provide for review exactly what changes to current rules it is proposing.
- NOAA and USFWS should not allow commercial use of Woman Key, Boca Grande, or Ballast Key.
- NOAA and USFWS must establish significant areas to protect hard bottom.

### **Adaptive Management**

- The extreme nature of environmental impacts such as global warming are expected to persist for decades and possibly centuries. In order to effectively address this and other issues, we believe



flexibility in rule making should be of paramount importance. Rules enacted today could be obsolete in just a matter of a few years and sanctuary managers need the ability to respond with innovative management ideas without the constraints of legislative actions or authority to implement those changes. Building flexibility into the management plan now will save time and money in later years.

- Sanctuary needs more, quicker, flexible, adaptive management. Flexible to adapt to changing conditions.
- Adaptive management and temporal closures remove my voice from the process of changing/removing laws.
- Re-evaluate any set zones every 5-10 years to determine if they are still needed, need to be expanded, or need to be removed from the zone.
- In the updated backcountry management plan, ask for flexibility to make changes to plan quickly (for wildlife-protection purposes).
- "If everything stays the way it is, (the invisible line/exclusionary zones) they should be better marked so there is no question about where you should or should not be. Need to be more defined."
- "Have time restriction on any closures. Revisit the status every 5 years. Western Sambo ER should be reopened for catch and release fishing."
- Need to supplement the scoping document by adding a need to create a dynamic management process – temporal component. There is a big problem in a static, shut it down method to wildlife issues mentality.
- Need for adaptive management within wildlife management areas.
- Community based input for adaptive management.
- Have adaptive management for zones to include facilitated discussions between different user groups.
- More flexibility built in between public review process to adjust regulations, for example wildlife management areas, little crane key.
- FKNMS and USFWS should conduct these reviews more frequently, and have more flexibility in the regulations between reviews.
- Adaptive management plan o protect coral reefs against climate change.
- The public has come to view the establishment of any new zone or regulation as a permanent change in the sanctuary. Hence each and every proposed change is accompanied by a “fight to the death” discussion and debate. That makes it difficult for the sanctuary to respond to new and/or temporary needs.
- In the scoping document, there needs to be a separate and specific clause that calls for the development of a more adaptive, dynamic, and fluid management system for applying zoning and regulation to the sanctuary. Specifically, it is of critical importance that the public sees areas “opened” as well as closed. The sanctuary needs to communicate that there will be an ongoing process of evaluation and revising of any zoning that is adopted in order to respond to changing conditions in the sanctuary that are brought about by natural changes, human impacts and even the success in particular zoning measures.
- There should be some kind of “fast track” process that allows changes, perhaps on a temporary or interim basis, without the full burden of the regulatory rule making process.
- The scoping document needs to link adaptive management with the creation and funding of additional, dedicated resources directed towards a vital, active social media presence for the sanctuary.
- Incorporating adaptive use management approaches into protection efforts will allow needed changes to protection efforts be made more efficiently, as new information and science indicate where and when those efforts will produce the best results.
- Over 15 years ago commenter worked with the Marathon Guides Association to set up two new WMAs in the Marathon area in places in severe need of resource protection, with the support of offshore charter-boat captains who depended on catching bait in these areas. Despite getting approval from Monroe County, the City of Marathon and the City of Key Colony Beach for these

two WMAs, they have yet to be implemented [commenter provided map]. Since proposing them there have been dramatic declines in usage of these flats game fish due to boat traffic, which has only increased as the years have gone by. Similarly, the Lower Keys Guides Association raised concerns about jet skis within the Boca Chica Beach area in one of the ERs, but has been waiting ten years for management changes for this area. Also, the charter dive industry brought up the idea of resource protection for Snapper Ledge years ago after observation that increasing overuse use of the area was negatively impacting it. The sanctuary needs more tools to address issues such as this quickly, and not have a one size fits all system for all sanctuaries that may work in one, but not another. Such tools would help the SAC act on matters in a proactive manner to lessen adverse impacts to our marine environments within our coral reef and nearshore grass flats.

### **Aids to Navigation**

- Although the FKNMS is not obligated by law to obtain waterway marker permits from the FWC for signs or buoys placed in the water, we request consideration of doing so for a variety of reasons:
  - By permitting markers in the FKNMS through the State's simple process, the FWC will be better able to inform the Sanctuary when damaged or missing markers are reported through FWC's statewide reporting program.
  - This process will also help to ensure consistency with State and Federal standards for waterway markers, thus making recognition of waterway markers and their meanings easier for boaters using the waters within the FKNMS.
  - Ultimately, this process will allow us to collaboratively manage the area waterways in the most effective and efficient manner possible.
  - This approach will improve compliance and minimize impact on benthic resources due to groundings and prop scarring.
- "Mark the areas where we're not allowed to go. If you want us to see the area put a buoy or ball that is visible at night (reflective tape), to signify where you are at. Markers inshore to show how you go around or stay away. PVC stakes (bubba sticks) are not effective. Need something that pops out at you."
- It is really wrong that prohibited areas that do not allow jet skis are not marked.
- "Have visual markers on no-entry boundaries for PWC operators, and expand boundaries to west of the NW Channel to defuse conflicts with other user groups."
- "Better intercoastal navigation markers."
- "Marking of no entry zones with yellow regulatory buoys."
- "Clearly mark shallow waterways. Better navigational markers around, for example, Contents keys."
- "PWC closure areas should be marked visually so you're not relying on GPS. There should be some allowance on the water for avoidance of obstacles."
- "Encourage maintenance of and proper marking/signage of safe boating channels, since they are not currently adequately marked."
- "Need better marking of no-entry zones for PWC."
- Designate and mark PWC routs. Designate a minimum depth for operating
- Better marking of no-entry zones, they need to be a clear line.
- Better marking of restricted areas – buoys for exclusionary vessels
- Make buoy colors – regulations by buoy colors.
- Have different colored buoys for different zones.
- More regulatory markers for the refuges.
- Make it easier to differentiate between the different zones when on the water.
- Have better marking of Refuge boundaries by using buoys in the Key West National Wildlife Refuge.
- Mark shallow water banks to protect from uneducated boaters. Could use money generated from a sanctuary education program to fund marking banks.

- More and better markers should be installed in the back country between the northwest side of Bahia Honda key and bogie channel.
- All the shallow water channels throughout the Keys need to be marked well with flashers.
- There is a need for better channel marking, especially in and around Vaca Cut. People see the open ocean, go for it and then run aground.
- Mark the Spanish Harbor bridge area in the vicinity of Big Mangrove Key better to protect the flats/shallows. There is a spit at the base of the key that people cut through on their way to Bahia Honda that is showing signs of boat damage and needs to be marked. It is currently not marked at all. [see regs.gov record NOAA-NOS-2012-0061-0178 for map regarding this issue]
- Install channel markers at the cut-in channel (the “Horseshoe and Cuban Cut Channel) located on the west end and north side of the Bahia Honda Bridge. A large basin was dug-out for fill dirt in the early 70’s for the new BHB. Outside of the basin was a channel cut-in that connects Bahia Honda channel with Bogie channel. Locals have marked it with PVC pipe but after a good storm they’re gone and if the water is turned up and muddy you cannot see the rocky sides of the channel. Morning light makes it difficult to see the existing PVC pipes marking the cut in the morning, moving east into the channel and also the same for afternoon light moving west in the late afternoon. I recommend for the safety of all that maintained channel markers be installed. Proper markers are also needed to save the seagrass, as noticeable prop damage on the east side of the Cuban Cut Channel has continued to get worse because of the dogleg approach not having markers. [see associated maps in regs.gov document NOAA-NOS-2012-0061-0180.]
- Floating markers are not very attractive looking. If we mark new banks, maybe something like a pole with a bird on it could be used for the markers. Use something more appealing and not obtrusive and this marker should be uniform throughout the Keys.
- A Suggestion to ensure success: outfit the PWC with a GPS that sets off an alarm when the PWC crosses into a refuge area!
- Each significant bank system in the Florida Bay should be clearly marked with stakes and buoys to prevent future groundings from taking place. The fees from the boater course and higher grounding fines should be used to help fund this cost.

### **Displacement Effects**

- Large no-take zones create condensed areas of fishing activities on the rest of the reefs.
- Additional closures will create more pressure on open areas. Closing back country areas is not the answer.
- Enforcement of PWC zones is concentrating use in other areas creating safety issues.
- Limiting areas on the reef for snorkeling is a bad idea because it concentrates them to form high impact areas.
- Additional closures will concentrate user pressure to smaller areas increasing the damage and causing skewed scientific results.

### **Education**

- When visiting local, state or federal parks, it is not uncommon to access them through a park entrance with a ranger or employee providing maps, rules and regulations and other useful information. This does not occur when entering the FKNMS. A formal FKNMS welcome center and pavilion in Key Largo would seem a logical choice for educating visitors to the Florida Keys.
- The sanctuary does not do enough to educate visitors that use the sanctuary. We need to engage the visitors before they get here.
- I am dismayed by the general lack of knowledge by what seems like the vast majority of people about the importance of what exists beneath the surface of the water, and the increasing threats to our oceans in general.
- A majority of the people who come to use the resources here are not well enough informed to do so in a sustainable, protective manner. They come from all over the continental U.S., other countries, and even mainland Florida without adequate education and background to navigate our

waters. They drive over the reefs, tear up sea grass beds, ground their vessels in the shallows, anchor on corals, and litter.

- Minimum education standards that include ecology.
- In commenter's experience, people want to do the right thing and would follow the regulations if they knew them, so along with regulation there needs to be education. NOAA and USFWS should develop an online Eco Mariner program (<http://ecomariner.org/course/>) for the Lower Keys. It could provide the many first time visitors renting or trailering boats with information on regulations as well as local knowledge helpful for protecting the environment and avoiding violations and trouble (e.g., how to read the water color, the tremendous tide difference between the ocean side and back country). To incentivize the program, instead of printing a certificate upon successful completion of the program and self test, users could get a wallet size card to present to boat renting companies, marinas and restaurants willing to offer a discount.
- Boating licenses on any motorized watercraft in FKNMS. Fees for this that go back into the sanctuary.
- Needs to be mandatory boating course for locals and tourists, for all of those on the water, to enhance boating skills and knowledge of area/region they are operating in
  - "Training to operate any kind of watercrafts."
  - "All boaters entering the sanctuary should go through a boating safety course."
  - "All boaters within FKNMS should have boaters' education."
  - "All boaters, including tourists who rent motor vessels, should have some kind of boaters license in order to operate vessels within FKNMS."
  - "Real boat driver licenses."
- Remove age restriction for boater education. Everyone should have to be educated.
- "Mandatory and meaningful navigation training before people rent private boats. Training would protect seagrass flats and other resources. Have train-the-trainers and require certification of boat rental staff. "
- "Better education systems for boaters and PWC operators (e.g. training, license to operate, better test)"
- What was the problem with jet skis? Issue of being responsible operators. Solution: more clearly marked areas of where to go and where not to go; education.
- Tour guides should have a captain's license when conducting PWC tours.
- Need more universal education program, not just one for PWC which would set PWC apart from other operators, but an across the board program.
- Could the Sanctuary itself create some kind of licensing, permitting, and/or education program for personal watercraft users.
- NOAA should consider a boater education course for anyone, regardless of age, operating a vessel with the sanctuary.
- Booklets containing rules and regulations and navigational maps detailing special use areas and boating restrictions could be provided. Boaters should be required to have the information with them when operating a watercraft in the sanctuary. It should be mandatory that this information be provided to and reviewed with anyone renting a vessel or personal watercraft in the FKNMS.
- NOAA and USFWS need to implement education for boats renters that covers all zoning regulations and rules.
- All boaters should be required to complete an educational course prior to renting or operating a boat in the FKNMS.
- Explore incentive for dive and snorkel operators to join the Blue Star Program.
- Prior to diving in the FKNMS all divers should be required to complete a course, such as the Blue Star program, that educates them on the negative impacts of coral contact.
- Scuba divers and snorkelers are stewards of an environment that is unique, and upon which they depend for recreation and study, and all scuba divers today are educated to maintain proper buoyancy and positioning configuration while diving that helps to prevent accidental damage to natural marine and other aquatic resources.

- Many divers seek additional buoyancy training and qualification above their initial diving “certification,” in order to better understand how they can protect the aquatic environment, and many seek and receive training to better understand the complex nature of coral reef communities, fishery resources and how to contribute to the knowledge base needed to monitor and protect these environments.
- Dive Operators based in Florida and the Keys place great value on reefs and all underwater environments, and help protect these areas by emphasizing during their pre-dive customer briefings that divers must avoid touching reefs and other underwater structures.
- The need for dive masters on charter dive boats to enter the water and instruct and guide their customers while in Sanctuary waters.
- Mandate commercial snorkel operators to participate in blue star education.
- The sanctuary and Personal Watercraft Industry Association (PWIA) have teamed together to present The Blue Rider Ocean Awareness and Stewardship Program to promote “environmentally-aware” PWC tours of the Keys. The goal is to ensure that people who rent or own PWC in the Keys understand, embrace and practice good ocean environmental stewardship when riding in the sanctuary, and leave with a deeper appreciation and understanding for the sanctuary. Many rental businesses in the Keys are already doing this important work. The PWC industry is an essential part of our economy that creates over a thousand jobs and millions of dollars for the Keys tourism industry.
- "Blue Rider stewardship program should be requirement for all PWC tour operators to ensure education and compliance."
- More signage and education at boat ramps and marinas on PWC awareness and the Blue Rider Program
- Have a sanctuary PWC certification program, like Blue Rider but more formal education program.
- "Blue Star and Dolphin SMART should be mandatory."
- A license to drive a boat should be stricter and boat drivers should know how to avoid groundings and how to read marine charts. They should also pass a test showing which areas are off-limits and which are no-take zones.
- NOAA and USFWS should consider a diver fee system and boater license system to manage these activities and raise funds for law enforcement and restoration activities; any funds collected need to stay local.
- The government (Florida Keys sanctuary) and private sector (tour operators) must form an alliance and work together to educate visitors about this precious resource with a message that is consistent with the sanctuary mission and objectives.
- NOAA should make the Blue Star Program mandatory and require training and certification of all snorkel operators by the sanctuary staff.
- "Require eco-tourism certification for all commercial users of FKNMS and refuges."
- Make sure all snorkelers/divers on commercial dive boats know the rules before they get in the water.
- "Diver and boater required courses and certification (anchoring, divers)"
- "Require all vessel operators to be eco mariners."
- "The fisheries laws in the FKNMS need to be simplified and potentially one set of rules made for all of Florida Keys. This will make it easier for fisherman to follow the rules and enforcement to enforce the laws on the book."
- "All individuals that want to operate a vessel in the FKNMS should have to take some kind of educational course that gives them information about the FKNMS and how to properly run a boat without running aground, rules of the road and other important information. Similar to the Eco mariner course."
- "All divers that go diving in the FKNMS should have to be exposed to education about harms of contact with Corals prior to entering the water. All dive shops that operate in the FKNMS should legally have to conform to minimum educational standards of their clients. The blue star program may be that standard?"

- NOAA should create marine resource education programs for all sanctuary boating and PWC users, while: maintaining consistency with regional programs; using the program Everglades National Park is creating as an example; recognizing reciprocity of similar vessel education courses completed through neighboring parks; partnering with the National Park Service and other state and federal agencies to increase awareness of safe vessel operation throughout South Florida (e.g., co-sponsoring public service announcements about vessel operation safety in the sensitive environmental areas in South Florida protected by FKNMS and the National Park Service).
- PWC operators, including commercial or personal, operating within sanctuary boundaries should be required to obtain a FKNMS Permit in order to ensure that the regulations are understood. Permit fees generated through the program could be used to fund education and law enforcement.
- "Media releases expressing the reasons for increased attention to regulations, violations and increased fines may improve the understanding of the seriousness of breaking FKNMS laws."
- Expanding the no take zones is the answer, but education is the key:
  - • damage is caused by people operating vessels in areas they are not familiar with and running aground;
  - • recreational fishermen should be required to take a course on operating a vessel and information about the sanctuary;
  - • Divers should be educated about the harms of contact with corals.
- "Implement boater education program similar as Eco-Mariner established in National Park on a voluntary basis with a phased in mandatory element over a reasonable time frame."
- Add Wilma Key to maps as a recognized refuge island.
- The Refuge should send clear rules/guidelines with maps to tour operators and flats guides every year.
- Create outreach materials targeting visitor activities (e.g., PWC users, kayakers, beach-goers).
- Work with guides to promote the refuge as a resource.
- Develop public education and outreach efforts that:
  - target a variety of audiences from Key West to Marathon;
  - promote a "wildlife ethic";
  - brand the idea of protecting birds, beaches, etc.;
  - inform the public of visitors' impacts on species and land (e.g., many people don't realize the negative impacts of flushing birds off their nest/roost or off tidal flats where they feed).
- Create a refuge naturalist certification program and consider:
  - requiring certification for acquiring a special use permit;
  - promoting "Certified Naturalist" tour operators;
  - modeling it after and/or combining it with the sanctuary's Blue Star program.
- Use regular Public Service Announcements on the radio to make education announcements about regulations and visitor impacts on wildlife.
- Advertise in the Florida Fishing/Sportsman Guide (magazine), which has a kayak fishing section.
- Refuge staff and/or volunteers representing the refuge should have more of a presence in the backcountry.
- Create "floating information booths" to remind people of the rules (not necessarily in a "law enforcement" way).
- Instead of promoting the perception that the refuge is anti-recreation, highlight areas that kayakers and other kinds of users can go.
- Instill a sense of stewardship and backcountry ethic so people know they should not approach sensitive islands too closely, and discourage others from doing so, and to minimize the need for signs everywhere.
- "I think the distribution of fishing regulations needs to be drastically improved because it is literally impossible to get correct information. In the last 3 months I have received contradictory info from FKNMS, FWC, and NMFS, all with the caveat that if they give me the wrong info and I get caught I'm still liable even though misinformed. There needs to be one central place where we can call to get current info that we can follow without fear of prosecution, when we're given the

wrong info from the very agencies that enforce it. (Example: Grouper fishing in the Gulf in April. Conflicting info provided)"

- "Reiterate education for the people and the officers that provide that info. Consistent info! Ability for people to understand regulations."
- "Given the right tour guide it can be a very educational experience and that's what we're out there to do. It's all about education. We are the Sanctuary's conduit/teachers."
- "Have better education systems to visitors about importance of coral reef ecosystem so that they appreciate more about marine resources we have here in FKNMS."
- "The Sanctuary should use the PWC operators to teach people what the sanctuary is all about."
- Guided tours: protect the environment; save lives; create awareness and educates; allows tourists to experience the beauty of our environment.
- By FKNMS staff working more closely with tour operators and providing them with visual displays, media and speeches that should be conducted, a far greater education of the resource can be achieved. The mission statement and goals of Sanctuary can be conveyed to EVERY customer on board.
- Sanctioned watersports companies have educational value through the promotion of better understanding of the ecological importance and promoting conservation of local areas. PWC brings a lot public knowledge to people who would not have otherwise gotten it.
- "Better information sharing network. Better education in general. Address divers who flip coral heads for lobster. More signage at boat ramps, outreach to schools, work with Tourism Development Council, use social media, more aggressive approach to outreach and a bigger media/marketing budget. "
- Support PWC tours as they are an educational tool to reach visitors.
- I would like to see government (NOAA, FWC, Mote Marine Lab, etc.) work more closely with snorkel/recreation operators so goals are more congruent, unification of goals. Instead of one policing the other, we can work together. Small businesses can educate tourists about resources. We need more communication between small businesses and government.
- Signs are not always the best way for information and education. Need more funding for education and outreach. Need more funding for the Eco-Discovery Center. Develop education programs around the public's concerns (Ex: better maps, literature, etc.)
- Concerned about closing areas for commercial and recreational use. Like education via showing people, in person, the resources here. It will increase people caring about the resources. It is important to have people in nature preserves. Don't limit commercial operators bringing people to the resources.
- Education about exotic species is doing well. Need to continue and maintain this program.
- Want website or something to learn more about the back country and the lower keys area to gain respect and care about protecting resources. And not just closing areas to protect it.
- More programming for historic sites, education and development of dive/snorkel sites around shipwrecks.
- More education is needed-reckless behavior is destroying coral and scarring seagrass beds.
- Outreach and education for tourists and recreational fishermen.
- Increase sanctuary vessel presence during major public vessel events (i.e., Bloody battle, underwater music festival) to reinforce to the public what the sanctuary does for local areas, for example: have sanctuary vessels with free info. floating around, and let people see law enforcement vessels in action.

### **Brochures**

- "Education to give tourists during tours or briefings. Hand outs directed at tourists, not something to give out at the Eco Discovery Center. To be available at businesses that explains why you can't go to certain places."
- "Divert all southbound trailered boats entering the Keys to take Card Sound road and have toll booth operator hand them a Sanctuary boating information packet."

- Revise the sanctuary lobster brochure for clarity, and include maps showing boundaries of the various jurisdictions.
- Develop a lionfish educational brochure, similar to the sanctuary's spearfish and lobster brochures (all the rules in 1 place).

### **Maps, Charts, Signs**

- "Like to see more educational info at boat ramps. Where boaters can and can't go (like existing manatee signs). That tell you when in you are in FKNMS, and tell PWC and vessels where they can and can't go."
- As an alternative to signs (difficult to maintain; visual pollution in wilderness), consider sending volunteers/staff to refuge areas during high-use times to give information to visitors (similar to the sanctuary's Team OCEAN program).
- "Better information sharing network. Better education in general. Address divers who flip coral heads for lobster. More signage at boat ramps, outreach to schools, work with Tourism Development Council, use social media, more aggressive approach to outreach and a bigger media/marketing budget. "
- "Have a big "Welcome to the FKNMS" sign at the 18 mile stretch and institute user fee to help fund enforcement."
- There is a need for more public education for people coming into the Keys. Let people know as they enter that the area is protected. At the very minimum, a billboard should be placed in Florida City or somewhere to convey this information. The idea of an electronic sign was also mentioned.
- Work with electronic chart manufacturers to make channels a "no anchor" zone, since vessels anchored in channels pose a navigation hazard.
- More signage and education at boat ramps and marinas on PWC awareness and the Blue Rider Program.
- Need better markings to Catrell Key. Want signs, posting on the internet, etc. to protect brown pelicans so people can know. Want local knowledge signs regarding the draft at entrance to Lakes Passage.
- People at Boca Grande do not know regulations. Signs are misleading. If you can't enforce the rules, you have to sign it.
- Signs are not always the best way for information and education. Need more funding for education and outreach. Need more funding for the Eco-Discovery Center. Develop education programs around the public's concerns (Ex: better maps, literature, etc.)
- Work with chart makers, especially Garmin, to make the zones easier to tell apart.
- Improve signage for shallow water channels, and for no motor, no entry areas.
- Improve boundary identification signage and education to residents and non residents in both English and Spanish.
- Sanctuary zones should appear on Google maps.
- A lot of the signage in specific zones is gone – they are not maintained. Florida Marine Patrol has been shorthanded – there are a lot of regulations in place, and enough people may not be in place to enforce what is there now.
- FWC staff has specifically identified issues with waterway markers in the Key West National Wildlife Refuge (NWR). During a site visit earlier this year, FWC staff noted that only one of the islands in Key West NWR was posted; it had a single, dilapidated sign on it. Several of these islands contain nesting colonies of white-crowned pigeons (listed as a State-designated Threatened species) or nesting wading birds. FWC staff has heard that some of these colonies are being disturbed by ecotour operations. The FWC recommends these important colonies be better posted, especially where there is evidence of human disturbance.
- Make funding of new signage in the Refuge system a priority since no one from out of town or new to the Keys can possibly know the areas that have limited use in the backcountry (e.g., commenter has talked to countless people who have no idea of the beach closures at Boca Grande, Woman Key, Marquesas, etc. or that they are not allowed in the creeks at Sawyer Key or Upper Harbor Key):



- a tasteful, unassuming, but visible sign would be a huge help;
- most of the old signage has fallen into unreadable pieces of rusty trash;
- signs in certain areas denoting Refuge boundaries similar to NPS signs in Florida Bay might help resolve some of the PWC tension and confusion, particularly in the area of the KWNWR;
- USFWS sorely needs to update their website to be more user friendly and useful as it is virtually useless for finding relevant and needed boating information;
- USFWS should make the maps and charts on brochures delineating limited use and access areas more detailed and specific, and should superimpose them on actual charts to avoid confusion and make it easier for the public to find and use the information.
- The website/mooring maps are great ([http://floridakeys.noaa.gov/mbuoy/maps/pelican\\_buoys.html](http://floridakeys.noaa.gov/mbuoy/maps/pelican_buoys.html)), but they should include one Lat/Long reference on either the easternmost or westernmost buoy on each page with a map, and should include a notation that these buoys are available for fishermen.
- "Show on map the fishing mooring buoys that are West of Looe (on reef line) and north of Looe (just west of Looe RO' NW corner), Show large vessel mooring buoy ( west end reef line) [http://floridakeys.noaa.gov/mbuoy/maps/looekey\\_buoys.html](http://floridakeys.noaa.gov/mbuoy/maps/looekey_buoys.html)"
- "Mark Teall's Charts with easier-to-read outlines of different zones and put icons/symbols similar to state park brochures to show 'No Fishing', 'No Diving', 'No Spearfishing' etc. right on the Teall Charts in each zone to make it easy to tell what you can and can't do in each zone."
- Provide boat ramp signs (in the Keys) and outreach materials in Spanish! Make outreach materials available for download on the web, and distribute hardcopies in the Miami area. Find out what organizations/agencies do producer quality outreach materials in Spanish and offer to distribute them through sanctuary distribution channels.
- NOAA and USFWS should better communicate the location and applicable regulations of the various marine zones, such as by providing clear on-the-water demarcations and readily-available marine zoning maps. Lack of educational materials to date has led to fines for unwitting zoning violations, and has undermined zone effectiveness.

#### **Public Service Announcements (PSA's)**

- Educational public service announcements (PSA) for the sanctuary in hotel rooms. (i.e.: [forthesea.com](http://forthesea.com))
- "Have a 18 mile stretch/ Card Sound Florida Keys National Marine Sanctuary radio station similar to the one the Everglades uses on Alligator alley to educate motorists about the National Park."

#### **Technology / Social Media / Web**

- Use technology to reach people, such as Smartphone apps and/or 1-800 lines for regulation info.
- "Create smart phone App that links with Google Earth GPS to identify at any given time where a boater is in the Sanctuary. Specifically no take zones."
- "Better information sharing network. Better education in general. Address divers who flip coral heads for lobster. More signage at boat ramps, outreach to schools, work with Tourism Development Council, use social media, more aggressive approach to outreach and a bigger media/marketing budget. "
- In the scoping document, their needs to be more emphasis on public media, social, interactive media. The government is behind on these methods, it needs dedicated funding and development towards it.
- More social outreach using social media such as Facebook and blogs.
- The scoping document needs to link adaptive management with the creation and funding of additional, dedicated resources directed towards a vital, active social media presence for the sanctuary.
- The sanctuary presently has a Facebook page. With more than 4100 "likes" to date, it is a successful and impressive effort. The maintenance of the Facebook page shows constant and knowledgeable input from sanctuary staff. This effort needs to be supported and even expanded.

- The sanctuary management should explore adding a blog, Twitter, Vimeo, YouTube; in short all of the elements used in modern social media activity.
- The sanctuary needs to dedicate personnel and budget to the social media activity. The sanctuary has no shortage of interesting and varied content as fodder for any social media publishing effort. It needs to continue to challenge itself to use these tools to inform its public.
  - The FWC also recommends that zoning information be easier to find on NWR web pages and maps.
  - The Sanctuary System is interested in promoting awareness about fishing in the National Marine Sanctuaries, thus the Florida Keys website should have a fishing map:
    - show where the breaks are between the different zones and not just SPA's RO's and ER's, but also showing Monroe County waters, state waters and where state regulations apply, federal waters, and Gulf waters;
    - once at the zone have a drop down menu for different species, size limit, bag limit, etc.;
    - show data buoys so fishers can check the weather while on the page;
    - show mooring buoys available for fishing.
  - "Website page for Jetskis"
  - "Weather in the Zones On the Sand Key Page  
[http://floridakeys.noaa.gov/zones/spas/sandkey\\_map.html](http://floridakeys.noaa.gov/zones/spas/sandkey_map.html)  
 exchange links with NWS data buoy pages  
[http://www.ndbc.noaa.gov/station\\_page.php?station=sanf1](http://www.ndbc.noaa.gov/station_page.php?station=sanf1)  
 other data buoys that can use similar link exchange: Sombrero Key (SMKF1), Long Key (LONF1), Molasses Reef (MLRF1), Fowey Rocks (FWYF1)"

## **Enforcement**

- Despite numerous commitments from NOAA for the staffing of sufficient law enforcement services, enforcement levels have fallen well below what can be considered “minimally acceptable.” Currently, law enforcement resources have fallen to levels which precede the creation of the FKNMS, when only the Key Largo and Looe Key national marine sanctuaries existed. The FWC remains concerned that we are so far below critical staffing levels that our current resources are incapable of providing a sufficient enforcement presence.
- The lack of a sufficient law enforcement presence is not capable of creating a halo effect to help maintain compliance in the absence of enforcement in the area.
- While FWC continues to stand beside NOAA in its efforts to protect important resources in the Sanctuary, we also urge increased collaboration to re-develop the critical law enforcement resources needed to ensure long-term success of the FKNMS program and its priorities. Ultimately, the adequacy of law enforcement resources in the area must be given serious consideration throughout this Management Plan review process. [note: additional specific details of FWC concerns to be added]
- There is a general lack of law enforcement. While what we have is excellent – intelligent, diligent, concerned officers – there is absolutely no way they can cover the amount of territory needed to adequately protect these resources. We either need greater education for prevention of potential offenses, or more law enforcement – actually both.
- Before implementing any new rules, funding should be increased for enforcement of existing rules and regulations.
- NOAA and USWFS need to provide stricter enforcement of existing refuge and sanctuary rules/laws, increase penalties for infractions (the stricter the better), and stop issuing meaningless warnings; many people are aware of the rules, but violate them because enforcement is so poor, and fines are so low.
- "Increase funding for enforcement. Rules need to be enforced. "
- Add more officers on duty to increase patrols, awareness and enforce penalties.
- "More LE throughout the Keys. There should be more Federal LE officers."
- NOAA should not add any new rules to the sanctuary because additional rules are unnecessary as enforcement of existing rules provides plenty of protection for the most unique areas of the Keys.

- "More enforcement!"
- "More LE on water."
- NOAA should provide more systematic enforcement of current sanctuary rules and regulations.
- "Better enforcement of regulations currently on books."
- We need more officers and fewer rules.
- NOAA should provide much more stern penalties for violations in protected areas - especially in SPAs.
- "The FKNMS needs to dedicate significantly more resources to law enforcement. The enforcement officers are already overloaded with the rule they have to try to enforce now. We need more officers and fewer rules."
- FKNMS should continue to work with Everglades National Park, the U.S. Coast Guard, and the Florida Inland Navigational District on defining the joint boundary between ENP and FKNMS to improve law enforcement success and ensure appropriate post-incident follow-up.
- "Increase and improve on enforcement actions throughout Sanctuary. Use of high tech tools; smart phones, GPS, planes to target efforts."
- Balance regulations with enforcement and maintenance capabilities.
- "Stricter LE for vessel groundings."
- "More LE to enforce existing regulations. Focus on existing SPAs."
- "Enforcement of current ban on release of any invasive plants, animals and organisms."
- "Sanctuary needs to apply use of decommissioned drones for use in enforcement."
- "Have a big "Welcome to the FKNMS" sign at the 18 mile stretch and institute user fee to help fund enforcement."
- FWC enforcement should treat PWC operators with more respect.
- Enforcement should apply across the board to all vessels equally.
- More law enforcement of anchoring in navigable channels
- "Neighborhood Watch" among boaters to report bad/impactful boating activity or unauthorized watercrafts.
- Regulations that are in place are good, but there is no enforcement in the Looe Key area (ex: dropping anchors, running through places they shouldn't be, etc.) I see harmful activity on a regular basis. Need better patrol of areas. For every 10 education volunteers I see out on the water, I only see 1 FWC officer (10:1 ratio)
- A call in system needs to be more accessible to report the running aground/resource damage/blatant infraction incidences.
- We need to enhance low-level enforcement (i.e. J-walkers). FWC is good at catching the big stuff (like casitas). Adopt processes for low-level enforcement, which will multiply coverage. Ex: community watch guards, cameras. Ex: for crime in NYC, experts said to paint over the graffiti, which was successful in reducing crime. Not vigilantes; solution is to reduce cutting corners
- Where's the enforcement? Should not restrict use without enforcement.
- Enhance enforcement on commercial use in the backcountry, specifically the wildlife management areas.
- Enforce pump-out regulations and install/have more pump-out boats and facilities.
- Publicize enforcement actions and penalties in media.
- More low level law enforcement such as community crime watch on water (jaywalking).
- High profile operations have been very successful in sending a message to people who might think about breaking the law, but it doesn't change the behavior of ordinary citizens or address the cumulative impact of small injuries to the resource that collectively are a greater threat to sanctuary resources. Problems like prop scarring require a sustained and broad enforcement effort that in the end encourages people to do the right thing. When multiplied across thousands of people, it is more significant in its benefits to habitat than the more spectacular, but necessarily more limited actions against high profile violations.

- Develop a clear, stated objective in the scoping document to find and develop low-level enforcement mechanisms is appropriate. The subject is a difficult one and it requires careful consideration and expert input.
- There should be LE officers specific to the sanctuary. LE officers should be Federal, their salaries should be manageable to reduce high turnover rate.
- Temporal law enforcement (seasonal, different time/day/locations)
- There are many violations along the shoreline and they are not policed. On and along the shore, people are taking all kinds of fish without regard to regulations.
- There is a strong need for land-based enforcement, especially on the bridges where lots of fishing violations are taking place, especially by weekend visitors.
- enforcement should give tickets on the bridges or on the water
- Enforcement is the biggest need.
- Improve enforcement on mangrove trimming/cutting along the shorelines. Homeowners and others cut them down and then just receive a fine and a slap on the wrist from FDEP for it. Mangroves are important habitats and we are losing them too quickly. They are deserving of protection.
- Regarding marine life collecting, would like to see more enforcement of existing regulations.
- Should reallocate law enforcement's time and locations to high impact areas
- There was no allowance for sacrifice areas in the Refuge or FKNMS management plans and the easy practice of ignoring them should be stopped.
- Sanctuary funded officers should enforce not only fishing and grounding, but also zoning with at least a handful of officers solely or primarily assigned to patrol SPA's, ER's, and ROA's:
  - it is important to residents and to the image of the Sanctuary;
  - this issue has been evident for many years, with locals and visitors alike scoffing at zone enforcement and poaching in "protected" areas because they know it is highly unlikely anyone will catch them;
  - there are plenty of violations in these zones to keep officers engaged and busy;
  - make fines for rule violation significant enough to be a deterrent because a \$50 civil fine is not enough to stop someone who spent \$300 to go out for a day of fishing from going to an area where they know they can poach \$200 worth of fish.
- "Law enforcement is not present or available in many places. They should focus and concentrate on high traffic, highly used areas that have a large history of destruction to resources and violations."
- Have more officials (e.g., sanctuary staff and Team OCEAN) present on the water to inform the public about sanctuary regulations.
- Provide increased enforcement / vigilance on the nightshift in SPAS, and also focusing on protected areas.
- Enforce existing sanctuary discharge regulations as they apply to diver-based fish feeding as well as shore-based fish feeding (tarpon pellets), or create a specific sanctuary regulation addressing diver/snorkeler and shore-based fish feeding sanctuary-wide. Do not allow grandfathering of existing business owners who claim that their livelihood will be affected.
- "The Refuge needs to fill all of its law enforcement positions, and create more to provide adequate coverage of its managed areas."

### **Fines**

- Fines should be imposed across the board for commercial and recreational fishery violators.
- "Higher fines for minor violations and higher jail time for major violations."
- Increase fines for resource violations.

### **Greening Operations**

- "Sanctuary should use biodiesel in its own boats, should encourage use of it, and should research the use of it for all vessels that enter the sanctuary and refuge."

## Oppose - General

- "No more closures!"
- Commenter disagrees with government (e.g., the sanctuary) claiming the land and waters as "theirs to protect" in order to enact laws and levy fines (more taxes) upon those who work and play upon them, because the oceans do not belong to anyone and should be left as they evolve. Those who support and cheer on the taking of our rights to fish, live and enjoy the Keys believe in the government-is-here-to-save-us doctrine and should ask Native Americans how life is on land our government gave them in trade for what the government stole from them.

## Permitting

- Demand DEP and ACE share permitting requests with the sanctuary and refuge regarding endangered species habitat, beaches, uplands and other sensitive/protected areas to allow sanctuary and refuge input before permits are issued.
- Do not allow commercial tour permits in the Marquesas Keys area; leave it for the general public to enjoy its wilderness setting. Large tour groups negatively impact wilderness values of solitude and untrammelled characteristics.
- Use special use permits for all access to the Marquesas area to limit the type and quantity of commercial use in the Marquesas area so that it retains its untrammelled characteristics.
- Regulations and permits can be based on nesting seasons – seasonal closures.
- Consider special use permits for tour guides.
- Permits allow the refuge to educate users and guides, and to control access, numbers, activities, etc.
- It is easier to enforce trespass under a permit system.
- A special use permit fee could create revenue that could go towards enforcement.
- If there is not enough enforcement to enforce a special use permitting system, would special use permits even be useful?
- Develop special use permits for any and all commercial tours (kayak tours, PWC tours, etc.).
- Limit entry with backcountry permits issued on a first-come, first-served basis, or through a lottery.
- "Don't require a permit to kill invasive species. Should be able to spear lionfish wherever. "
- Develop a less restrictive permit process for coral reef and eco restoration.
- I oppose any permitting to enter SPAs. It will drive away tourism. Lionfish taking needs to be open to pole-spear fishing for the lionfish permit program in SPAs. I see the majority of lionfish in SPAs. Allow this for responsible operators that have the skills and knowledge of the area.
- Like to see permitting process coordinated between state and federal agencies for coral reef restoration. State permitting process is more onerous. DEP and NOAA can talk to have a consistent permitting process.
- A sanctuary wide permit to catch baitfish with Sibiki Rig and cast nets.
- Permitted, planned artificial habitat for fish and lobster in FKNMS.
- There are way too many permits needed to commercially fish, it makes it hard to have a commercial fishing business.
- Simplify the permitting system through taxes or tax returns.
- There should be a County use permit, with sticker for user fee that then supports education and enforcement. Can be structured/ marketed similarly to a fishing license and then can use the resources to fund education and enforcement.
- Permitting process for restoration projects needs to be streamlined. The process should be easier/shorter when and because restoration projects are beneficial. This comment pertains to the US Army Corps nation-wide permit system.
- Regarding cast net baitfishing, NOAA should eliminate issuance of baitfish permits (e.g., eliminate activity from SPAs). Per comments submitted during the 5 year management plan review process, ceasing this activity in the SPAs would increase protection of these areas and clear up confusion among sanctuary users about what is or is not allowed. Some permit holders have

stated they do not use the permit to fish in the zones, a justification for reducing the areal extent of this permitted activity; there are indications that the permit holders could conduct the activity in other areas than SPAs. Secondary options (listed from more restrictive to least restrictive/most liberal):

- Cease issuance of baitfish permits in the 14 SPAs that do not allow catch and release fishing (e.g., only allow it in four SPAs);
  - Eliminate the allowance of lampara nets (commercial gear) from baitfish permits;
  - Create a new sanctuary permit category to address permit issuance (currently use “Otherwise further sanctuary purposes, including facilitating multiple use” category);
  - Write an exemption to sanctuary no-take regulations at 922.164(d) to allow baitfishing using certain gear and for certain species.
- Regarding hair hook baitfishing, NOAA should eliminate issuance of baitfish permits (e.g., eliminate activity from the three SPAs where it is currently permitted). While this activity was not considered during the 5 year management plan review process, ceasing this activity in the SPAs would increase protection of these areas and clear up confusion among sanctuary users about what is or is not allowed. The number of permit holders has declined since inception of the hair hook permit program in 2004, with an average of only 26 permits per year being issued (for the past six years). A minimal number of permit holders state annually that they do not use the permit to fish in the zones. Secondary options:
    - Create a new sanctuary permit category to address permit issuance (currently use “Otherwise further sanctuary purposes, including facilitating multiple use” category).
    - Write an exemption to sanctuary no-take regulations at 922.164(d) to allow baitfishing using certain gear and for certain species.
- Review whether a new sanctuary permit category and new regulations are necessary to address salvage and tow operator activities. In the November, 2009 review of sanctuary regulations, sanctuary staffers Bill Goodwin and Steve Werndli were leading this effort.
  - Consider creating a new sanctuary permit category for live rock aquaculture (LRAQ) to lessen the burden on applicants (who currently go to either the state or NMFS), while increasing sanctuary oversight and permitting of the activity. This idea was discussed in the November, 2009 review of sanctuary regulations. Related issues that the sanctuary needs to address include:
    - how the sanctuary would coordinate this with the state since the Florida Dept. of Agriculture currently has control over LRAQ in all state waters, not just Monroe County, and this authority would not be relinquished by a sanctuary regulation change;
    - Whether NMFS would be able to “hand over” permitting to the sanctuary if NOAA adds this permit category to sanctuary regulations.
  - Address the fact that since 1990, the local dive business community has capitalized on being within a National Marine Sanctuary without contributing anything to maintenance or upkeep of resources or facilities that they use daily, such as mooring buoys, educational brochures, shipwrecks, artificial reefs, and others:
    - develop a permit system (Special Use, most likely) that establishes terms of access by commercial dive, snorkel, and tour operators to the sanctuary;
    - develop a simple fee system to generate revenue from these operations;
    - review/duplicate the many model systems available, such as a “tag” fee for SCUBA tanks that gets passed on to divers (e.g., \$2 per tank, all proceeds go to the sanctuary, and dive operators cannot operate without permit that requires tag fee assessment).

## **Regulations**

- A stated goal of the FKNMS is to remain consistent with existing government regulations when possible (FKNMS 2007 Management Plan, Section 3.3.1 “Regulatory Action Plan,” “Background”). In recognition of this goal, the FWC has identified two areas where FKNMS regulations in the area are inconsistent with existing State regulations:
  - First, the definitions of some boating-restricted areas are different from those found in State law. In order to reduce boat operator confusion and complement existing state zone

types, we suggest that the Sanctuary adopt the boating-restricted area definitions found in Rule 68D- 23.103(3)(b), (d)-(f), Florida Administrative Code.

- Second, we discovered that the restriction for vessel operation in the vicinity of a diver down flag is inconsistent with State law. Chapter 327.331, Florida Statutes, prohibits vessels from operating above idle speed within either 100 feet or 300 feet of a “diver down” flag, depending on the width of the water body. For consistency, it is suggested that the FKNMS either adopt the State law or remain silent on this topic and allow the State law to set the regulatory standard on waters within the Sanctuary.
- "Keep the current FKNMS regulations. Changes are not necessary."
- "No change on the current spearfishing regulations."
- No changes to the rules should be made unless they are in the public’s interest and able to withstand legal challenges.
- No more fishing regulations needed.
- "Increase regulation on PWC operators (for example at Higgs Beach)"
- "Less regulations for PWC operators, so they can have more areas to operate and avoid conflicts with other users."
- "FL Keys should have its own fishing council and regulations."
- "Regulations on grouper should be backed by scientific data for the region, especially for black and red grouper for Monroe County."
- "There needs to be a better mechanism for fishing interests to be reflected in the regulations, and there should be reefs exclusively for fishing and not for diving."
- "Any new regulations should be balanced by a tradeoff elsewhere. There should be no net negative impact to jobs and economy due to regulation changes. There should be a positive one."
- "Ban on release of all genetically-engineered, modified, or altered organisms."
- Regulations should apply evenly across the board for all vessels. PWCs are vessels, and commenter feels PWCs have less environmental impact than prop boats and bigger vessels.
- Address upstream influences to water quality, such as the Mississippi River. What good are local regulations if regional issues are not addressed?
- Backcountry regulations must comply with state law.
- "Like to see an economic impact study for all regulations whether good or bad. Unbiased, relative to all industries."
- Detailed economical impact Analysis must be conducted on all regulations.
- Need to take account of the economic impact of regulations, such as the effect on public access and the small businesses in the community.
- Take into consideration the economical impact of new regulations and give more weight to it.
- Maintain and enforce current regulations on anchoring and sea grass impacts. Do not expand regulations.
- Make buoy colors – regulations by buoy colors.
- An effort to simplify fishing regulations for inshore and offshore.
- We have too many regulations. Not all nesting birds need to be protected.
- Don’t over-regulate, there are existing regulations and laws, don’t duplicate them.
- Regulate sponging.
- Extend state waters to 9 miles because the fishing regulations are too complicated.
- Enforce pump-out regulations and install/have more pump-out boats and facilities.
- The speaker was concerned about out of region influences on local regulations. e.g. Grouper regulations and would like to see more local management.
- There should be more consistency in fisheries regulations between state and federal waters and that size and bag limits should be the same.
- Any keys based fishing regulations should be under one set of rules.
- Simplify regulations to ten or so commandments so as not to overtax the capacity of an area, e.g. Honor thy fishing regulations, don’t destroy bottom, and don’t kill grass flats. New rules should be enforceable before they are adopted.

- More regulations for rental boats to avoid misuse of and/or damaging the sanctuary resources
- FWC and other agencies should consult homeowners association before buying land and enforce regulation on existing properties
- Refuge regulations for resource protection are in place, date back to the 1980s and 1990s, and should be maintained and improved upon in regard to areas of intense boating and human activity.
- The boundaries and general use regulation for the existing Lower Keys Wildlife Refuges (the Great White Heron, the Key Deer, and the Key West National Wildlife Refuges) should remain the same. They are the sound models of wise management.
- The Florida Keys sanctuary emergency regulations at § 922.165 currently allow temporary regulations to be in effect for up to 60 days, but should be changed to allow temporary regulations to be in effect for up to six months (similar to the Thunder Bay sanctuary regulations at § 922.196). This would allow for temporarily closing areas specifically for restoration activities for a long enough timeframe to allow sites to stabilize.
- Florida Key sanctuary should adopt regulations specific to abandoned and derelict vessels, similar to those at the Monterey Bay sanctuary (at § 922.132). While current regulations regarding discharge or vessel operations can apply in this situation, the problem is significant enough to warrant specific regulations.
- Add “littering” to the Florida Keys sanctuary prohibition on discharging or depositing at § 922.163 (a)(4), similar to the Fagatele Bay sanctuary prohibition on littering, depositing, or discharging at § 922.102 (a)(4).
- “[Towing and salvage] activities could be prohibited under 922.163(a)(3) Alteration of, or construction on, the seabed, 922.163(a)(5) Operation of vessels. (i) Operating a vessel in such a manner as to strike or otherwise injure coral, seagrass, or any other immobile organism attached to the seabed, including, but not limited to, operating a vessel in such a manner as to cause prop-scarring, or 922.163(a)(13) Interference with law enforcement.” All commercial towing and salvage operators should be permitted to work within the sanctuary, via permits similar in nature to the Commercial Use Agreements issued to towing and salvage operators by Biscayne National Park.
- Streamline lobster regulations by working with local jurisdictions so that regulations are the same throughout the sanctuary.
- Update the sanctuary definition of “tropical fish” (at 922.162) to read: “Tropical fish means any species included in 68B–42 of the Florida Administrative Code, or any part thereof.”
- The current list of construction projects exempted from the sanctuary’s alteration of the sea floor regulation (at 922.163(a)(3)(v)) includes, “...docks, seawalls, breakwaters, piers, or marinas with less than ten slips...” and the following should be added to the list: rip rap revetments, bulkheads, boat ramps, boat lifts, and mooring piles (and possibly others).
- Review text of sanctuary regulations on the Florida Marine Life Rule (922.163(a)(12)) with NOAA General Counsel for Ocean Services and FWC based on updates to this rule made in the last year by FWC:
  - insert language to indicate that Special Activity Licenses (SAL) issued by FWC for marine life collections are valid permitting for Sanctuary purposes in state and federal waters (except for no-take zones, KLNMS and LKNMS EMAs);
  - clarify that non-conforming activities may be conducted in state and federal Sanctuary waters, with the exception of the fully protected zones, pursuant to a valid SAL issued by FWC;
  - add a phrase that activities under the Marine Life Rule cannot conflict with other Florida Keys sanctuary regulations (e.g., “Notwithstanding any other prohibitions of this 922.163 and 922.164...”).
- Allow cremains to be dispersed in state waters (outside zones) under sanctuary special use permits, and work with state to find out how to effectively allow this despite OFW designation.
- Create a regulatory definition for artificial reef in sanctuary regulations at 922.162(a) and a specific prohibition on deployment at 922.163(a).



- In the November, 2009 review of sanctuary regulations, it was discussed that there is “large SAC consensus on 2 specific areas to add” as WMAs. Find out what these were and whether they still are priority areas.
- Develop regulations limiting live aboard anchorages.
- Enforce existing sanctuary discharge regulations as they apply to diver-based fish feeding as well as shore-based fish feeding (tarpon pellets), or create a specific sanctuary regulation addressing diver/snorkeler and shore-based fish feeding sanctuary-wide. Do not allow grandfathering of existing business owners who claim that their livelihood will be affected.

### **Research and Monitoring**

- NOAA should do new studies on the Channel Keys Banks System because the last studies were done in 2002-2006, and since the Jan. 11th, 2010 cold front commenter (who fishes the banks almost every day) observes that the banks have had a tremendous regrowth with coral flourishing, healthy seagrass and sponges, and the majority of old prop scars mostly regrown.
- NOAA and USFWS should hire a small staff of locals who have a lot of first-hand knowledge (some for 4 generations) to work with scientists. Commenter recommends Capt. Rich Gomez [contact info. provided].
- Need to seek feedback from fishermen and use that knowledge for research purposes. Research should utilize local fishing experts.
- Do research to determine optimal buffer zone size.
- Conduct monitoring to document the impact from commercial kayak tours and private kayak use.
- Do research to document differences in nesting success, bird use, etc in closed versus open areas.
- "Bag limits on deepwater species, anything deeper than 150 feet, Instead of size limits, (Example: red grouper). Better studies on survival rates of embolized fish and venting tools and how many of these fish are surviving. Like to see “an independent study” not NOAA fisheries. Would like to see the fishermen do it themselves."
- "Like to see an economic impact study for all regulations whether good or bad. Unbiased, relative to all industries."
- Detailed economical impact Analysis must be conducted on all regulations.
- "FKNMS should be managed by only State of Florida, and NOAA’s involvement with FKNMS should be only in scientific research."
- "Conduct examination of fish populations at least every 5 years to determine the status of certain fish species, and then, based on the surveys, determine whether to reopen or close fishing of certain species. (e.g. Goliath Grouper, Red Snapper, Tarpon, and Permit)"
- "Public access to scientific research conducted within FKNMS (e.g. fish research, closure of areas)"
- "Separate science and politics in the sanctuary. More scientifically-motivated regulations."
- "Close an area from Key Haven to Sugarloaf on the Gulf side to sponging and study how this closure affects/improves water quality."
- "Support research to study any sponge closures and affects to water quality."
- "Sanctuary should use biodiesel in its own boats, should encourage use of it, and should research the use of it for all vessels that enter the sanctuary and refuge."
- "More research on spawning aggregations and expand protection of spawning aggregations."
- Reevaluate/compare the damage done by prop vessels to that done by jet drive and determine which vessel is worse for the environment and causes more damage.
- There is a lack of need studies on the number of bonefish, tarpon, and permits recruited within near shore waters of Boca Chica Beach area, which is of the Sambo Ecological Reserve. There is no base line to go off of because there are not studies done, which have been asked for many years.
- I don’t know how much research is done about taking sponges. Sponges are filtration units. Sponges are being taken in bays, shallow areas, and channels that don’t need to be taken. I support research to understand the effects of this sponge removal.

- Need for carrying capacity studies for SPAs and other zones that people use. Are we putting strain on areas due to the concentration of users?
- When looking at the science of SPA areas versus non-SPA areas, there seems to be no significant difference in fish abundance; this protection doesn't actually seem to benefit the area to which it is applied. From these studies, one cannot conclude that SPAs are "doing their job" in protection. There needs to be studies that look at all reef species, not just apex predators and commercially important species. Needs to be unbiased studies that are not conclusion based. There seems to be a pre-determined conclusion with current studies that SPA's are working, the data says otherwise.
- More research on water quality coming from mainland Florida.
- More research should be conducted and results should be more widely distributed to the public
- Transparency and availability of scientific data to public, past and future.
- Better data collection methodologies. Focus on data collection at local level instead of collecting data elsewhere to study. (e.g., fish species count study).
- More local fishery research.
- There is a need for better data/research into the effects or causes of declines.
- There should be more studies on Channel Key Bank, Bamboo Banks and Red Bay Banks. He recently read a science study that took place from 2002 through 2006, but hasn't seen any more recent studies, nor has he seen any NOAA research boats out there recently.
- Need detailed research and survey work at the proposed spawning aggregation closure sites.
- The refuge should document trends in the extent of various habitats, including on islands, should be documented and monitored to gain information on changes in habitats and the species using those habitats. The physical forces at play on these islands are forcing a variety of changes in habitats, and obviously have been for many years. Now both warming and sea level rise appear to be speeding up these changes. Keystone species such as alligators on islands within these Refuges should be better monitored and data compared to extensive distributional data on Lower Keys alligators collected in the late 1980s. Bird nesting should be detailed and utilized to provide data to inform management but with a recognition that most human activity will be negative in these environments.
- Changes in the extent and quality of the various Keys native habitats over time should be identified and those due to humans separated from naturally occurring changes. Restoration and improved management for maintenance of species richness and the naturally high biological diversity can then be focused in areas where practicable and realistic.
- Sea level rise and climate change are having profound effects on Keys both marine and non-tidal waters and wetlands, and most dramatically on shorelines. Changes in the extent of some benthic communities, such as the large-scale changes of seagrass habitat on the reef tract in relatively short time frames, are not easily explained. We recommend that more effort be put into identifying trends in Keys habitats. The expensive, recently completed FKNMS benthic mapping by NOAA should be used to assess the extent and nature of various habitats through a comparison to previous mapping by NOAA and the State. Past and projected sea level rise data and aerial imagery should be used to identify areas where upslope migration of habitats will occur unfettered vs. those areas where past alterations will block this migration to see where acquisition and restoration can occur to improve future conditions.
- Designate a subset of existing artificial reefs as no take zones and a further subset as no-entry zones to compare the effects of ARs on habitat and species composition when consumption and visitation are eliminated.
- "There are millions of dollars spent on studies. This money could be better used for the education and better pay grade of law enforcement, more funding for public outreach and education."

### **Scientific Basis**

- NOAA and USFWS must support changes with actual scientific proof, and USFWS should not extend the boundaries of the Key West and Great White Heron national wildlife refuges unless scientific evidence shows this is necessary, rather than expanding the boundaries based on bias and personal opinion.

- I have reviewed much of the “science” promulgated NOAA in response to the upcoming re-zoning. I have to say that as a full time practicing marine scientist, with over 30 years of “in-water experience” on nearly a daily basis, I must repeat that I have never ever seen such a degree of work where the conclusions appear to have been made in advance of the “research” beginning AND all the data been skewed to support what largely appears to be the opinions of the researchers. The conclusions are NOT at all supported by an un-biased analysis of the data. I am again very disappointed and disillusioned by what looks like dishonesty, and I still really hold out hope it is merely high enthusiasm for conservation, which of course, we all share.
- Do not come into a research project with pre-determined conclusions, do not fabricate false conclusions to suit a political agenda and how about: Let’s stick to the truth! If you are going to use science to make your points, as you should, let’s have honest, transparent AND unbiased science, un-biased analysis of the data and then let’s together, on a step by step basis, make good, sound, non-emotional recommendations that real peer-reviewed science does support.
- Scientific results have to be statistically significant to matter – the FWC mutton snapper paper was admittedly not looked at from the point of statistical significance.
- I reviewed the paper entitled: “Biodiversity and Ecosystem Function of Shallow Bank Systems within the FKNMS” by Burke et al... In this publication, the authors claim that the shallow banks systems “served as a mosaic of essential fish habitat such as juvenile nurseries and foraging and sheltering grounds for adults, including high densities of economically important reef fishes. Further, they state that “the fish assemblages consistently resembled assemblages of coral reefs and had higher diversity and biomass than the assemblages of the surrounding basins.” The only two conclusions that the research team reached, that I wholly agree with after spending more than 30 years diving nearly every work day for most of those years, that are consistently supported by the data are:
  - That over a four year period, it showed that “fish community metrics lacked any trend consistent with over fishing”.
  - That designation of bank systems within special management zones would not protect them from the primary risk factor: deterioration of water quality.

Here are a few candid observations and greatly differing observation of fact:

- The bank systems come nowhere close to mirroring the diversity of even the inshore patch reefs much less the offshore coral reefs, even now in their greatly reduced state. Out of eleven families of fishes observed by the researchers on the bank systems, the vast majority of species approx 95% by both total number of individuals and biomass were really only represented by three families and a few species of grunts, snappers and parrotfishes. The remaining 7-8 families were represented at most stations by one or two individuals that I would suggest are there accidentally due the result of settling out of the plankton on the nearest hard bottom area, a term we have in our extensive work named “faunal capture.
- We see this same pattern of accidental distribution of shallow water fishes on deep reef environments such as deep wrecks, hard bottom patches, submerged Pleistocene shorelines and seamounts. Species such as blue and queen angels, rock beauty angelfish, various butterfly species, various *pomacentrids*, *Apogonidae* and etc. all settle in these deeper areas and are wiped out completely by the next cold water episode (53-56 F) that are frequent visitors to any deep reef habitat deeper than 200’ FSW off the South Florida coastline.
- To say these species are indigenous to the bank system is not true and either represents the case of naivety of the authors who are not residents of the area or an attempt to mislead the public in a land grab for extensive MPA’s that will not really protect the habitat one bit. These same species found on the bank systems are also found in the same abundances as stragglers off the coasts of North Florida, Georgia, South Carolina North Carolina, Maryland, New Jersey, New York, Connecticut and the balance of New England every summer.

- In fact, the vast majority of coral reef families were NOT represented at all on the Florida Bay bank systems. The obvious absence of many common individual reef fish families such as *Gobiidae*, *Apogonidae*, *Opistognathidae*, *Inermiidae*, *Kyphosidae*, *Ephippidae*, any significant number of species of the many reef dwelling species of *Serranidae*, *Grammistinae*, *Grammatidae*, *Blennidae*, *Priacanthidae*, *Holocentridae*, *Labrisomidae*, *Chaenopsidae*, *Tripterygiidae*, *Callionymidae*, *Paralichthidae*, *Scorpaenidae*, *Batrachoididae*, *Antennariidae*, *Sygnathidae*, *Synodontidae*, *Gobiosocidae*, *Uranoscopidae*, *Dactylopteridae*, *Cirrhitidae*, *Aulostomidae*, *Malacanthidae*, *Tetradonidae*, *Diodontidae*, *Ostraciidae*, *Balistidae*, *Monacanthidae*, *Pempheridae*, *Mullidae*, *Scienidae*, *Bythitidae*, *Congridae*, *Muraenidae*, *Ophichthidae* to name a few families I am very familiar with, and not even including any of the many reef dwelling elasmobranch species and invertebrates.
- Further it is very significant to note that in each of the many coral reef families I listed, that are totally absent on the Florida bay banks, there are many, many additional unique individual species that are represented by each family. This simply adds to the gross exaggeration and inaccurate comparison poorly attempted by the authors of this paper.
- This fact alone leads me to entirely disbelieve the authors' claims and conclusions as either totally or largely false. The authors were either ignorant of the many families and many species within each coral reef family, or this is an obvious and shallow attempt to mold the data with a lot of fancy manipulation that could easily confuse the lay public to suit a pre-determined conclusion that extensive SPA's need to be established, to also include wide swaths of the Florida Bay. To that conclusion and purpose, I wholeheartedly disagree!
- A researcher could alternately go and dive and perform a fish count on any one of the many local piles of ice cans, washing machines, automobile tires and other artificial reefs in the Florida Bay and do a fish count and they would end up with pretty much the same results that they find on the bank systems! Are we going to make them SPA's too?
- The vast bulk of the Florida Bay and Gulf of Mexico is a largely featureless "desert" that holds only a few species of fishes and large easily observed macro invertebrates throughout much of its extent. And while many species traverse across this basin, the only places where relatively dense populations of fishes occur are on widely scattered hard bottoms areas where there are sufficient hiding places, shelter and food much like an oasis does in the desert. The bank systems are merely another one of these places.
- While I do not mean to imply the banks are not important habitat, I agree they are important habitat, but they are not what the researcher's implied-essential habitat akin to the coral reef. Nor do I imply that we should not protect them from prop scarring, groundings and abuse by non-resident boaters. We should protect them by aids to navigation, and mandatory education, not by an extensive SPA's or MPA's!
- By implying they represent the same value to system as the endangered coral reefs is at best disingenuous. They are simply put, NOT at all analogous to coral reefs.
- They do not provide what I think is a mosaic of habitats. Further, they do not contain a high diversity of species, nor are they nursery grounds for juvenile reef fish. Hardly any families of reef fishes are ever found here! The conclusion that proximity of bank systems to tidal passes appears to affect habitat quality and utilization by fishes makes no sense to me. Tidal currents in the passes are what actually create the bank systems in the first place; they do not occur in any other place outside of tidal currents.
- Secondly, there is absolutely no information contained in the report that demonstrates any reliable passage of benthic species using the banks "as stepping stones" transiting the estuarine environment. I have personally visited these areas winter, spring, summer and fall and the same species are primarily found here all year long as permanent residents. They largely do NOT transit out to the outer reef.
- Further, I debate that this is an estuarine environment as claimed in the first place. The term estuarine usually denotes some volume of fresh water entering this system. While this used to be the case prior to draining of the Everglades, the salinities we see in excess

of 40 parts per thousand in the summer are not in any way estuarine at this time. The Florida Bay is more of a hypersaline environment most of the year.

- There is also a very thinly supported conclusion that nocturnal carnivores utilize bank systems as they do a coral reef. It is interesting that the non-resident researchers could make this degree of an observation and such a strong conclusion based upon only one dive, on one single date in 2006. Is this real science? One dive, on one date by some non-resident researchers and a conclusion is reached? I have spent my entire life here working in this very environment and I disagree entirely.
- I read the words: may play, may have, we assumed, studies suggest, assumption was reasonable, was assumed, likely exhibit, may limit, may be analogous, are presumed to be, is likely, is likely to be, are likely driven, appear to offer, may be, may play over a dozen times throughout the paper. It seems to me, by my read, that a lot of assumption was taking place without a lot of hard facts and hard data to support these conclusions.
- Finally, since vessel groundings are the only immediate threat to the health of these bank systems, isn't better to simply mark them and educate the public? Do not create a vast and unsupportable SPA's that would exclude the current level of (according even to the authors of this paper), sustainable fishing activities.
- "If any changes are made, use proven science to make all changes."
- "Banning of any vessels needs to be made using scientific evidence supporting the ban."
- "Closures between fishing and diving should be supported by the scientific data. You need to control for diving pressure well as fishing pressure."
- "Regulations on grouper should be backed by scientific data for the region, especially for black and red grouper for Monroe County."
- "Separate science and politics in the sanctuary. More scientifically-motivated regulations."
- I would like to see all rezoning decisions based upon scientific fact. The proposal for Snapper Ledge to become a SPA is not based on science. This area is so special it should be a research natural area only.
- Use the best science. Connectivity between ecosystems.
- When looking at the science of SPA areas versus non-SPA areas, there seems to be no significant difference in fish abundance; this protection doesn't actually seem to benefit the area to which it is applied. From these studies, one cannot conclude that SPAs are "doing their job" in protection. There needs to be studies that look at all reef species, not just apex predators and commercially important species. Needs to be unbiased studies that are not conclusion based. There seems to be a pre-determined conclusion with current studies that SPA's are working, the data says otherwise.
- Insure that good science be used in determining new zones. Goal's be stated and areas reopened when they are met.
- Incorporate science to the management plan in much faster rate.
- Determine what we are protecting. Use clear and accurate but not emotional science to create best tools for marine resource management.
- Scientists are not necessarily the experts. People who work on the water are experts and scientists should go to the experts for information on grouper, etc. He read a paper stating that there has been no new elkhorn/staghorn coral growth for years, but he knows where there is new growth. He is reluctant to share that information, though, because then the area will be closed. He doesn't want to see an area closed just because it has new coral growth. Some science isn't true. He would like to see the knowledge shared, but no new closures.
- Assess existing closed areas based on best available science to determine if their continuation or extent is meeting their stated purposes.
- When the refuges were created (Key West National Wildlife and Great White Heron), a lot of science and thought went into that process. The recent requests for change by many individuals and businesses are solely for personal reasons or the pursuant of a business agenda to the detriment of others. Let scientific studies and research be your guide to determine if these boundaries and zones should remain as they are today, not the personal opinions that have been

expressed in your forum. Please do not change any boundaries or lines without supporting research; no science or studies prepared to date have concluded this is necessary.

- The use of specific indicators to describe where we are against a “perfect world” model and to measure the success of regulatory standards would seem to give the sanctuary an ability to better argue its point on any of a variety of issues.
- Follow the science from all sides because sometimes the smartest people may not know it all.

### **State and County Management**

- "FKNMS should be managed by only State of Florida, and NOAA's involvement with FKNMS should be only in scientific research."
- The federal government implements their own rules in state territory. Shouldn't the Sanctuary be managed by the state? Management should be close to the people that use it. Management should seriously consider this. I'd like to see a level of government removed.
- Backcountry regulations must comply with state law.
- Like to see permitting process coordinated between state and federal agencies for coral reef restoration. State permitting process is more onerous. DEP and NOAA can talk to have a consistent permitting process.
- Monroe County should have its own regulatory authority for marine areas.
- Extend state waters to 9 miles because the fishing regulations are too complicated.
- Get the State of Florida to create more artificial reefs.
- There should be more consistency in fisheries regulations between state and federal waters and that size and bag limits should be the same.
- The State of Florida has failed in their efforts to manage boating impacts in state waters of the Keys and the FKNMS needs to step up with increased attention to this widespread problem.
- An important provision of State of Florida approval for the FKNMS was that the National Oceanic and Atmospheric Administration (NOAA) and the State would act as co-trustees to cooperatively manage the Sanctuary and Sanctuary resources in a manner consistent with the management plan, and five Memoranda of Agreement and Protocols. One such protocol was the Protocol for Cooperative Fisheries Management. The Protocol for Cooperative Fisheries Management identified the following three objectives:
  - Develop consistent (or one set of) regulations within the Keys Sanctuary.
  - Provide for a flexible management system that minimizes regulatory delays while retaining substantial State, Federal and public involvement in management decisions, and rapidly adapts to changes in resource abundance, new scientific information and changes in fishing patterns among user groups.
  - Promote public comprehension of, voluntary compliance with and effective enforcement of the fisheries regulations within the Keys Sanctuary.

The FWC recommends updating this Protocol as part of the Management Plan revision process. This update should incorporate ways to improve how the FWC and the Sanctuary coordinate on fishery management issues and utilize the Protocol to guide the regulatory process.

- NOAA and USFWS should consider recent state and local laws designed to address resource challenges in the FKNMS, including challenges identified in the 2011 sanctuary condition report, such as: Fla. Stat. § 253.04(3), Fla. Stat. § 403.93345, and Monroe County participation in an “Anchoring and Mooring Pilot Program” per Fla. Stat. § 373.4105.

### **Support - General**

- Commenter supports marine reserves because: we must have no-take protected areas to allow the many reef fish that have been over harvested to recover, along with lobsters and coral.

### **User Fees**

- Establish user fees for commercial diver operators and other users of resource (e.g., jet ski tours, parasailing etc.), and use funds from the fees for additional education or restoration programs.

- "More partnerships between government and private sector. Example: consider tour company surcharge per guest that could be used for coral restoration. "
- "Have a big "Welcome to the FKNMS" sign at the 18 mile stretch and institute user fee to help fund enforcement."
- "Voluntary \$1 fee for private companies (tour operators, marinas etc) who use the sanctuary resources."
- Operators bringing people to reefs should be part of reef restoration projects. My company spent tens of thousands of dollars for growing corals, we know it works. Our role can be to work with marine scientists. We (snorkel operators) do give back, fund research projects for growing corals. We can shut down patches, small tracts of reef, for six months at a time to allow for the corals to recover. I support a 'restoration' tax on commercial trips: which is part of a solution.
- Boating licenses on any motorized watercraft in FKNMS. Fees for this that go back into the sanctuary.
- The sanctuary needs to bring in more resources to oversee the sanctuary. Get income from the users that use the sanctuary.
- There should be a County use permit, with sticker for user fee, which then supports education and enforcement. Can be structured/marketed similarly to a fishing license and then can use the resources to fund education and enforcement.
- Increase fees for lobster and/or fishing licenses to increase funding for FWC LE officers.
- The open-access nature of FKNMS currently provides no opportunity for private investment because there is no mechanism through which to generate revenues from the on-site benefits created by an enhanced/restored marine ecosystem. Allowing users to be charged for the exclusive right to access certain areas of the reefs to which they previously had unlimited, open, free access, plus a minimum level of tenure security would allow new sources of capital to be applied to reef ecosystem restoration.
- Charge a significant, yet 95% refundable, mooring fee, in the amount sufficient to remove that vessel, in the event it becomes derelict. It is easy for a vagrant boater to anchor in the existing mooring fields and simply disappear when the wanderlust strikes, leaving us to clean up the resultant mess.
- Each significant bank system in the Florida Bay should be clearly marked with stakes and buoys to prevent future groundings from taking place. The fees from the boater course and higher grounding fines should be used to help fund this cost.
- There are huge amounts of fishing line and huge numbers of traps damaging sanctuary resources, and someone has to be responsible for funding ways to get this damaging trash out of the marine environment and off our shorelines. Charge people who have a saltwater fishing license and fish in the sanctuary an extra fee to help remove fishing lines from underwater and along mangrove shorelines:
  - the boater improvement fund is not enough and often seems to get used for boat ramps, etc.;
  - not enough of the funds go back to protect the marine environment and mitigate for the impacts of recreational and commercial fishing;
  - the state of Florida could collect a special stamp fee with licenses and pass the money to the sanctuary for state water management;
  - the sanctuary could require a special stamp to be carried and monies could be used directly to mitigate against fishing impacts in areas zoned for fishing;
  - commercial fishers should also have to pay an extra fee that is structured fairly somehow to pay for the lost traps and undesirable impacts from trash;
  - A bridge fee or stamp might help stem the tide on trash on fishing bridges.
- "Commercial boats put much more strain on mooring buoys than normal boaters. Have them contribute money for maintenance of buoys."
- Address the fact that since 1990, the local dive business community has capitalized on being within a National Marine Sanctuary without contributing anything to maintenance or upkeep of

resources or facilities that they use daily, such as mooring buoys, educational brochures, shipwrecks, artificial reefs, and others:

- develop a permit system (Special Use, most likely) that establishes terms of access by commercial dive, snorkel, and tour operators to the sanctuary;
- develop a simple fee system to generate revenue from these operations;
- review/duplicate the many model systems available, such as a “tag” fee for SCUBA tanks that gets passed on to divers (e.g., \$2 per tank, all proceeds go to the sanctuary, and dive operators cannot operate without permit that requires tag fee assessment).



## Artificial Habitat

### Issues:

- More fish of all kinds and sizes are needed. This can be accomplished through (1) protection of habitat, (2) habitat restoration on the ecosystem level, and (3) creation of zones for habitat restoration. Make the habitat restoration process approved sanctuary-wide so as to streamline the process and make it easier to do.
- I understand the general reluctance to have artificial reefs within the park boundaries. If the concept is to utilize both sound science and the best management practices I would suggest that the inclusion of designed reef systems would be a critical component of the park management plan for the purpose of comparative analysis.
- The idea of placing memorial reefs in the sanctuary will provide a significant contribution to the long term health and viability of the park. Additionally, the inclusion of memorial reefs should be considered in view of the fact that they can provide a positive contribution to every aspect of the parks purpose and goals.
- Presently a very significant number of people request to have their ashes scattered somewhere in the Florida Keys, mostly within the park boundaries. This scattering of ashes provides no long term benefits to the park and to the management plan. From Eternal Reefs experience we know that having a memorial reef in the park is the single most requested location that we receive from families. Allowing the placement of these reefs can be done in a manner consistent with long term goals of the management plan.

### Suggested Strategies and Tools:

- Artificial reef deployment and use in national marine sanctuary areas has been debated for many years. There are many well-supported beneficial uses for artificial reefs (e.g., restoration, fisheries enhancement), and they do have an important role in management of the FKNMS. The FWC recommends that issues relating to artificial reefs be addressed in the FKNMS Management Plan revision process through the creation of an Artificial Reef Workgroup. The Artificial Reef Workgroup would be responsible for developing a guidance document to be used during the Management Plan revision process. The document should address, but not be limited to, the following artificial reef related issues:
  1. Identification and prioritization of artificial reef research, including but not limited to:
    - a. Artificial reef design and siting for purposes of fisheries enhancement specific to the FKNMS (e.g., enhancement and/or expansion of reef fish spawning aggregations).
    - b. An assessment on the long-term performance of past historic concrete artificial reef habitats in the Florida Keys.
    - c. Whether invasive species (e.g., lionfish, orange cup coral) selectively prefer artificial reef structures over natural reefs or other habitat in the FKNMS, and if so, why.
  2. Identification of areas that would facilitate research on artificial reefs, inclusive of areas that are closed to fishing activities so that variables of directed fishing pressure and reef size and shape are removed. This would require consideration of amending the current zoning strategy and regulatory constraints to allow for placement of artificial structure in areas where it is not currently allowed. Consideration of this issue should be coordinated with the suggested Restoration Workgroup.
  3. Discussion and recommendations regarding the use of artificial reef structures for:
    - a. Restoration: Identify the types and designs of artificial reef structures that have historically been and are currently being used in the FKNMS for restoration activities, including but not limited to structures used for coral, coral reef, and reef-related species restoration (e.g., coral relocation and transplantation, reef framework repair, long-spine urchin and queen conch restoration efforts). Identify what has been learned from these activities, and provide recommendations as to

what actions could be taken to maintain beneficial use or improve future use of artificial reef structures for such activities.

b. Fisheries Enhancement: Identify opportunities to use strategically placed artificial reefs to enhance marine fish habitat by overcoming bottlenecks in marine fish life history stages, reducing fishing pressure, etc. Specific examples might be to increase spawning habitat in areas closed to fishing, improve survivorship for juvenile fish by creating juvenile habitat with limited predation, strategically place artificial reef structures at shallower depths to reduce release mortality due to barotrauma, or to use artificial reef placement to minimize fishing pressure on adjacent natural reefs.

c. Fisheries Management: Opportunities to use artificial reefs to support fisheries management objectives should be discussed and explored. For example, it should be acknowledged that FKNMS-specific criteria and standards would need to be developed for appropriate materials, design, and siting of lobster casita structures in the event that they are ever considered for purposes of fisheries management.

d. Live Rock Aquaculture: Identify issues associated with material placement for live rock aquaculture activities, and develop recommendations for appropriate siting of such activities.

4. Develop guidance on how to consistently address requests for artificial reef deployments, including but not limited to:

a. Secondary use of materials of opportunity (e.g., bridge spans, concrete culverts, limestone boulders).

b. Military or civilian ship sinking.

c. Placement of underwater art projects, other novelty items, memorial reefs, either temporarily or permanently. A recent example would be the temporary underwater photo art exhibit on the Vandenberg Reef. Older past examples would be the permanent statuary like the "Christ of the Abyss," or the temporary metal artist's project intended to be viewed from the air at night as it was illuminated with "cy-lume" night sticks.

d. Placement of materials intended to mimic marine archaeological sites for purposes of eco-tourism (e.g., placement of real cannons or replicas (Quaker guns), rock faux ballast piles, etc.).

- "No more artificial reefs."
- NOAA and USFWS should designate certain nearshore areas (to be determined) as protected nursery grounds (especially areas on the Atlantic side of the Keys that are high in recruitment of postlarval spiny lobsters), and within these areas should allow:
  - ecologically engineered nursery habitat enhancement programs to increase the yield (survival rate) of existing postlarval seed stock, which in turn would increase the yield of harvestable stocks;
  - the "seeding" of engineered nursery habitats with seed stock derived from indigenous brood stock (conch, grouper, snapper, marine tropicals, etc.) to be spawned under hatchery conditions.

For more information see commenter's paper "Good News for Troubled Waters" at <https://www.box.com/s/zc0e9qy96310jdm9n4nc>.

- We need man-made structures in the gulf to support fish life.
- "Enhance fisheries through the use of artificial habitat"
- "Artificial habitat program for fin fish on ocean side"
- Permitted, planned artificial habitat for fish and lobster in FKNMS.
- "Use artificial reefs in 150' -200' of water to enhance the red snapper fishery."
- "More artificial reef habitat to enhance fishery production (i.e. fishery industry in Japan)"
- "Use size specific artificial habitat to help bring back Red Snapper population."
- "More deep artificial reefs with rotating fishing closures to have more options on which to fish."

- "Permit and encourage development of new natural reefs in addition to artificial reefs. Utilize public/private partnership to do so. "
- I am very supportive of artificial reef structures that support life. Ex: The Gulf side of FL is flat for a long distance, which structures can be installed 5, 10, 20, 30 miles offshore) to take pressure off of natural reefs. They will support a lot of life. It's a win-win situation.
- Artificial reef habitats should be created to take the pressure off of natural reef bottom areas.
- Get the State of Florida to create more artificial reefs.
- No take status for ship wrecks that are on the shipwreck trail, and artificial reefs.
- Allow fishing on artificial reefs because many fishermen gave up fishing the wrecks so they would have new places to fish that take pressure off the reefs.
- He would like to see more concrete balls to attract coral and would like to see a focus on coral and what threatens it.
- Provide an exception to the discharge regulations to allow spreading of cremated ashes and work with State of Florida to allow scattering in state waters.
- Allow cremains to be dispersed in state waters (outside zones) under sanctuary special use permits, and work with state to find out how to effectively allow this despite OFW designation.
- The broad concept of memorial reefs is really a win for everyone involved. The park will get new habitat at no cost to the taxpayers. In addition the park will benefit by having a new feature that will provide significant eco-tourism, economic contribution, employment opportunities and tax revenues to the local communities. The concept of using memorial reefs as a part of the long term management plan is extremely flexible and can easily accomplish the following goals;
  - A] Scientific contribution. Setting aside an area and designating as a special use area would allow for the use of memorial reefs for long term scientific evaluation. In the case of Eternal Reefs, reefs could be seeded with coral and both retention and growth cycles can be compared over multiple generations of reef placement. The reef site could be developed as an internship program for students and educators.
  - B] Habitat development. These areas can also be protected from harvesting, providing long term protected habitat.
  - C] Eco-tourism. Memorial reefs will increase tourism. In 2008 we had over 800 family members come to Sarasota, FL. from out of state for between four and ten days to participate with the creation of their loved ones memorial reef. We also know from experience that many of these families return periodically to see how their loved ones reef is developing. Given the interest we see from our inquiries this could be a number in the thousands of visitors. Most of these visitors will utilize little of the other marine park resources. Depending upon how the site[s] would ultimately be managed pressure on other reef systems and park resources may be minimized.
  - D] Increased involvement with the protection of the parks resources. Families who are involved with having their loved one being placed in the park have a long term commitment to the protection of the park. They will add to the grassroots protection of the park and will be supportive and active with organizations like The Nature Conservancy and Reef Relief. These families will be fully vested in helping to preserve the park.
  - E] Permitting the placement of memorial reefs in the park will create a number of new jobs within the affected counties. Depending upon how a memorial reef program would be defined the number of jobs could be very significant.
  - F] Designate a subset of existing artificial reefs as no take zones and a further subset as no-entry zones to compare the effects of ARs on habitat and species composition when consumption and visitation are eliminated.
- Create a regulatory definition for artificial reef in sanctuary regulations at 922.162(a) and a specific prohibition on deployment at 922.163(a).

### **Lobster Casitas**

- Clarify the term 'casita'. It has a bad connotation. Refer to it as an artificial reef.
- "Support a casita pilot program"

- Casitas are not unpermitted, artificial reef sites. For the most part, they are junk piles placed throughout the sanctuary for the sole purpose of harvesting lobster and stone crab. In a recent study of a selected area in Florida Bay (Hunt-FWRI Marathon) estimated there were as many as 1000 illegal casitas in the survey area +/- 500. However, a federal law-enforcement official familiar with the location stated he has over 5,000 GPS co-ordinates for illegal casitas in the same study area. This same enforcement official conservatively estimates the number of casitas in the sanctuary at 20,000 and as many as 50,000 based on his GPS records. In almost every case of illegal lobster harvesting from casitas, the judiciary has imposed sentencing that in part requires the removal of the casitas from which the resource violation occurred. The highest profile cases and most egregious resource violations on record in the State of Florida have involved illegal harvest from casitas in the FKNMS and surrounding waters of Monroe County.
- Placement of and harvest from casitas is presently illegal and should remain so. The FKNMS should likewise continue an aggressive campaign of removing these illegal structures from sanctuary waters.
- "Please continue casita research program"
- "Listen to the science. Casita pilot program seems like a no brainer."
- Allowing a pilot program of properly designed casitas to be placed on the seafloor (not junk) along with the appropriate plan that encompasses law enforcement as well as further research, would accomplish a number of things according to the results of three year study by a FWC scientist:
  - Demonstrate there are no detrimental effects to the marine environment or its inhabitants that would occur when using properly designed casitas as gear, as documented by the FWC scientist.
  - Generate the growth rate of coral seven times faster than that of the natural bottom, as documented by the FWC scientist.
  - Allow lobster harvesting to take place without bycatch and eliminate the needless rate of short lobster mortality that occurs with other gear types, and is well documented by the FWC scientist.
  - Eliminate the needless suffering and mortality rate of several dozen other marine species (invertebrates, fin fish, marine mammals) that end up as bycatch with other gear types, and are documented by the FWC scientist.
  - Eliminate millions of dollars doled out by federal agencies to replace a gear that has been documented by the FWC scientist as detrimental to the marine environment every time we get a blow of 50 knots or more.
  - Demonstrate that a properly designed casita also provides a safe haven for juvenile and intermediate grouper and snapper, which are free to leave this gear and do prior to becoming large enough to harvest, as documented by the FWC scientist.
  - Demonstrate that the growth of octocorals and stony corals would be accelerated on the natural bottom surrounding a casita due to the natural cleaning of the bottom by the lobsters and the multitude of invertebrate species that quickly inhabit a casita, as documented by the FWC scientist.
  - Demonstrate to the public and other user groups that while commercial divers hold 28% of the lobster endorsements they have never landed more than 15% of the commercial landings during a commercial season in history. This makes public accusations by other user groups that accuse commercial lobster divers are putting them out of business wrong and unfounded, as documented by state of Florida recorded landings of lobster during any commercial season.
  - Demonstrate that casitas do not distort the lobsters migration or create an iron curtain. This too is documented by the FWC scientist.
  - Demonstrate that several newspapers have published articles on hearsay and that these articles have distorted public perception, as well as made your job of implementing new rules based on accurate science more difficult than it should be.
- "Let science be our guide. Support pilot program to better study/document casitas in commercial lobster fishery as an alternative to minimize impact from lobster trap fishery."

- NOAA should create a pilot program for using casitas for harvesting lobster, and test it with a small group from ECCD
- "Start small pilot program of casitas (approved gear that don't move) now that the Gulf side research has been done."
- The sanctuary should allow a small casita pilot program to further John Hunts FWC research on casitas.
- "Conduct 2nd phase of casita research study (e.g. pilot study) to follow up with the research conducted by FWC."
- Second phase evaluation, pilot program of casitas 5 year based on first evaluation of John Hunts report of Oct 19, 2011
- ECCD proposes a Second Phase of Research on Alternative Lobster Gear (ALG) to follow John Hunts Research of Casitas completed in 2011. ECCD has designed an ALG that should be considered a refined lobster trap. "Stage one research performed over the last three years on this ALG by FWC has scientifically proven ALG to be an eco and resource friendly gear. This proposed second phase of research is a Science and Industry Based Alternative Lobster Gear Pilot Program. ECCD is proposing the implementation of the second phase of research to be conducted on this ALG in a designated area in the Gulf of Mexico, to study ALG in a working Lobster fishery. The proposed second phase ALG pilot program would work as follows:
  - Participants would be eight members of ECCD, who are life-long residents of the Florida Keys and commercial fisherman who worked in the first stage of research.
  - The participants will actively participate in a small, but completely functioning ALG pilot program.
  - The participants will get an allotted amount of locations in the Gulf of Mexico where their alternative gear will be placed and harvested from.
  - Each participant will pay for their own ALG at no cost to the State.
  - ECCD will provide all ALG locations to FWC and facilitate them in their research. Researchers are welcome to do their field studies from our boats, effectively saving the State even more money.

By allowing the second phase of research to go on, you are enabling science and industry to continue working together towards gathering valuable information to better help the Florida Keys marine environment, marine mammals and fisheries.

- Allow a small pilot program on the outer perimeters of the Florida Keys National Marine Sanctuary (north of Harbor Keys, west towards Key West) to study and learn about the growth and catch rate at Legal (a previous FWC demonstration project) casitas as well as to monitor the benefits of casitas. Reference the 22 page FWC Casita Research Report – ECCD [Environmentally Concerned Commercial Divers of the Florida Keys]. Use the information from this pilot program in management and to move forward in creating a functioning and regulated casita fishery; include science, law enforcement, and licensing. There is a concern about the negative public perception of casitas. There needs to be equality between user groups, specifically for the commercial trapping industry. The commercial divers feel discriminated against yet they feel their methods impact the habitat less. Consider allowing trappers to trade methodology. Example- Retire 5-10 traps for each legal casita. Casitas as environmentally-sound equipment – they act as nursery areas. Mitigate trapping damage.
- NOAA should give a casita pilot program a chance to help with coral restoration, fish restoration and lobster in the manner FWC scientists have found that it will if given the chance.
- NOAA should prohibit illegal lobster habitat ("casitas") through regulations that specifically address this form of fishing practice because:
  - it destructs hardbottom, corals and seagrass beds through shading and limiting water circulation (for feeding);
  - it generally alters the seabed, which is prohibited by sanctuary regulations;
  - it threatens to adjacent resources when debris is relocated/redistributed during storms and hurricanes, causing collateral injury to resources;
  - it disrupts normal, traditional migration routes and ecosystem functional services by intersecting lobster walks (i.e., the lobster are not able to make it into safe havens like the

- thousands of solution holes and natural reefs in the Keys backcountry where they are afforded the ability to escape human fishing pressures and seek refuge);
- harboring and attracting lobster, stone crabs, ornamental fish and apex predators (snapper, grouper, etc.) renders them vulnerable to fishing pressures and overfishing, like a fish attracting device (i.e., while removing illegal structures and upon overturning casitas debris, the lobster line-up to march and are extremely vulnerable to capture; in commenter's experience they became oblivious to human threats and she could hand-pick them out of the line-up without resistance or escape);
  - it is not a legitimate, traditional fishery in the U.S. and should not be treated as such (those who set casitas are aware that they are illegal as evidenced by their activities after hours and "blacked-out" boat ops like no running or anchor lights, secretive and covert activities); and,
  - There is a huge issue with liability for establishment of artificial reefs.
- A casita program would and could assist your efforts, Mote Marine's efforts and FWC effort in coral and fish species restoration.
  - Supports the efforts of NOAA OLE (Office of Law Enforcement) to target and prosecute casita fishermen and poachers.

### **Wrecks and Ships To Reefs**

- Diving and marine tourism are so influential to the Florida economy that in 2008 the Legislature enacted the matching grant program entitled "Ships to Reefs," authorizing the sinking of decommissioned U.S. Military vessels in Florida waters which have been specially cleaned and prepared to increase marine habitat and for use by recreational scuba divers and fishers.
- Economic contribution estimates from the artificial reef USS Vandenberg off of Key West Florida range from \$5.6 to \$16.1 million per year. The expenditures of divers and fishers visiting artificial reefs in Florida are estimated at more than \$131 for every dollar of local and state investment (Source: Jon Dodrill, Florida Fish and Wildlife Conservation Commission).
- The University of West Florida estimates that more than 4,200 chartered dive trips are taken annually to the artificial reef/aircraft carrier Oriskany off of Pensacola, Florida and divers travel to Florida from all over the world to visit this unique dive site. Annual revenue generated from diving visitors traveling into Escambia and Baldwin Counties, Florida alone is estimated at \$2.2 million, and dive-related expenditures drive an economic impact of \$3.6 million in local output and additional jobs while generating \$1.4 million in local income. Local tourism and business officials invested nearly \$1 million dollars in the sinking of the Oriskany and soon after determined their entire investment was returned in the form of new income and business within three days following the sinking.
- The Diving Industry depends on sustainable interaction with the marine environment as well as with certain submerged cultural resources for its very existence, and is aware of the need for long term sustainability of these resources for all citizens of the U.S. The Industry is keenly aware of this dependence for diving and for all, and as a result is dedicated to a healthy marine environment and protection of submerged cultural resources.
- The placement of artificial reefs (e.g., decommissioned naval vessels) has increased the desirability of the sanctuary as a diving destination and has resulted in a significant infusion of monies into the Florida economy (\$131 spent by divers for each dollar invested into creating the artificial reefs). As such, the sanctuary should continue to be managed with an emphasis on providing SCUBA divers a quality recreation experience.

## Boundary

### Issues:

- The sanctuary should be larger to protect natural and cultural resources, (the Florida shelf, area to be avoided, the gap at the west end between the Tortugas and Tortuga south deep reefs).
- When the refuges were created (Key West National Wildlife and Great White Heron), a lot of science and thought went into that process. The recent requests for change by many individuals and businesses are solely for personal reasons or the pursuant of a business agenda to the detriment of others. Let scientific studies and research be your guide to determine if these boundaries and zones should remain as they are today, not the personal opinions that have been expressed in your forum. Please do not change any boundaries or lines without supporting research; no science or studies prepared to date have concluded this is necessary.

### Suggested Strategies and Tools:

- "Expand FKNMS boundary."
- NOAA and USFWS must support changes with actual scientific proof, and USFWS should not extend the boundaries of the Key West and Great White Heron national wildlife refuges unless scientific evidence shows this is necessary, rather than expanding the boundaries based on bias and personal opinion.
- NOAA should expand the sanctuary boundary to include Tortugas South.
- "Expand sanctuary boundary out to nine miles bayside outside ENP matching state boundary."
- The sanctuary should coordinate with Dry Tortugas National Park (DTNP) in protecting a currently unprotected corridor between the FKNMS and the Tortugas South Ecological Reserve that may be traversed by mutton snapper during spawning aggregations (as noted in DTNP Research Natural Area 5-Year Report). Consider protection at least in the form of temporal closures based on spawning migrations, and at best expanding either FKNMS or DTNP to include this corridor and close it to fishing.
- FKNMS should continue to work with Everglades National Park, the U.S. Coast Guard, and the Florida Inland Navigational District on defining the joint boundary between ENP and FKNMS to improve law enforcement success and ensure appropriate post-incident follow-up.
- USFWS should:
  1. Raise (move it north) the Key West National Wildlife Refuge Line from 24 degrees 36.00N 81 degrees 42.00W to 24 degrees 37.00N and 81 degrees 42.00W so we can run PWC's pass Rockland Key to Big Coppitt Key and back.
  2. Move the Key West National Wildlife Refuge Line West from 24 degrees 40.00N and 81 degrees 49.00 W to 24 degrees 40.00N and 81 degrees 50.00W
  3. Extend the Key West National Wildlife Refuge Line from Channel Key to marker number FL R 2.5s 16ft 4M "12" in the North West Channel and from there extend down to G "9" FI G 4s, from there extend straight across to the Western Sambo Ecological Reserve Line.
- "Expand the boundary south and east of the current Sanctuary boundaries to the 'area to be avoided by 50 meter vessels'"
- "Expand boundaries to include all of the Tortugas 2000, the Research and Natural Area, Ecological Reserves and waters out to the "Areas to be avoided by vessels 50 meters", Pulley Ridge, and consider an expanded buffer area to extend north of the current boundaries. Include more deep reef areas."
- "Expand the sanctuary to include continental shelves and slopes (e.g. deep reefs)"
- Expand or move Key West National Wildlife Refuge boundary west to encompass deeper water, for example the channel, so PWCs can enter that area.
- Extend the Florida Keys National Marine Sanctuary border to include Tortugas South.
- Enlarge existing total sanctuary boundaries to protect the natural and cultural resources and increase the area around the Keys that prohibits oil drilling.
- Increase sanctuary boundaries in Gulf, north of Key West by about 60 nautical miles.
- Consider extending the sanctuary's northern boundaries:

- extend the ATBA for large vessels to sensitive areas along the reef line north of the sanctuary's northernmost boundary east of Biscayne National Park to help protect these areas from tankers and other vessels that might get in too close and damage drowned reefs and hardbottom (there would still be openings for tankers to get into port when needed just as in Key West);
- extend the sanctuary boundary to include the area just to the north of the current boundary, not necessarily as a no-take zone within the sanctuary;
- extend sanctuary boundaries to cover either or both federal and state waters to the north that are not already in a national park.
- Expand the boundary to improve protection, management and sustainability of uses of Keys-region resources. Include;
  - the continental shelf and slope north, south, east and west of FKNMS which is integral to the Keys ecosystem,
  - deep reefs including all or portions of Pulley Ridge, Pourtales Terrace, the Wall off Key West, Marathon Hump, Islamorada Hump and Miami Terrace,
  - East Hump MPA (of S. Atlantic Fishery Management Council), regional Habitat Areas of Particular Concern and Essential Fish Habitat designated by NOAA Fisheries,
  - the portions of the Keys' Area to be Avoided and Particularly Sensitive Sea Area that fall outside the existing boundary,
  - the gap between Tortugas South Ecological Reserve and the main Sanctuary Boundary, and
  - Maritime heritage sites (e.g. the "USS R-12" submarine and other WWII wrecks off Key West).

It may be possible to include some of the specific areas outlined above as disjunct "satellites" of the current FKNMS boundary but a single boundary line encompassing all additions to the FKNMS and following easily identified lines of latitude and longitude or adjacent managed area boundaries would be easier to regulate and provide protection for more resources.

- DEMA recognizes that when marine sanctuaries are designated under the *National Marine Sanctuaries Act*, including the *FKNMS*, each is designated because of specific conservational, recreational, ecological, historical, research, educational or aesthetic values. In addition to these criteria, DEMA suggests that the process for changing boundaries or other alteration of these areas;
  - A. Includes input from all user groups;
  - B. Provides for a clear balance between access and use by interested parties, and health of the resource;
  - C. Recognizes that diving and snorkeling are not inherently consumptive activities;
  - D. Does not unnecessarily restrict non-consumptive activities.
- Incorporate a single boundary line that encompasses all additions to the FKNMS and following easily identified lines of latitude and longitude. A single boundary line would be mitigate enforcement challenges and allow make it easier for stakeholders to comply with regulations.



## Coastal Development

### Issues:

- NOAA should address, possibly through an approach like that suggested for barge spudding, turbidity curtain deployment around nearshore construction sites adjacent to sanctuary resource communities. Sanctuary resources are often present near or on structures being "rehabilitated." The curtains often encase sanctuary protected species, and/or shade, stagnate and prevent life sustaining flushing, feeding, and other biological functions.

### Suggested Strategies and Tools:

- "Use channel dredging as water quality mitigation instead of requiring mitigation to dredge (or channel desilting). Establish mitigation bank."
- Dredging can be a good mitigation effort for water quality by desilting or reopening traditional water way/flow patterns
- "No chemical dispersants in sanctuary. Do not allow/permit use. "
- "No floating hotels or developments in the sanctuary."
- Sanctuary should not allow dredging of the main shipping channel into Key West to allow bigger ships to come in.
- The sanctuary needs to remain closed to oil and gas exploration.
- Maintain current regulations against new oil drilling and dredging within the Florida Keys National Marine Sanctuary.
- Identify locations where alternative energy options are feasible. For example, create zones where such infrastructure as wind turbines and tidal energy can be considered.
- FKNMS should make a decision on whether alternative energy sources will be permitted to be placed in the waters of the FKNMS and what types of systems will be allowed (i.e., wind turbines or tidal turbines).
- A determination should be made as to whether or not tide and wind turbines and any other alternative energy facilities will be allowed in the Sanctuary. If so, analysis of where they may not be permitted (e.g. coral reef, seagrass, *Acropora* Critical Habitat) or should not go (e.g. potentially tarpon migration corridors) should lead to where they may be permitted.
- It should be easy to identify and eliminate areas where coral and seagrass habitat should prohibit alternative energy technology. We are hopeful that by identifying specific zones where tide and wind turbines are allowable it will encourage development and eliminate barriers to testing and installation.
- Pay more attention to the impacts of development activities on shorelines of developed islands and expand NOAA's authority and responsibility to protect and manage these critical areas.
- The issue of fish and wildlife disturbance should be factored into every FKNMS decision about marine construction, dredging, navigational channels, and the like.
- The current list of construction projects exempted from the sanctuary's alteration of the sea floor regulation (at 922.163(a)(3)(v)) includes, "...docks, seawalls, breakwaters, piers, or marinas with less than ten slips..." and the following should be added to the list: rip rap revetments, bulkheads, boat ramps, boat lifts, and mooring piles (and possibly others).
- NOAA should prohibit dredging for military or cruise ships.

## Coral and Reef Restoration

### Issues:

- "Better protection of areas that are at higher risk (e.g. certain area of coral reef)."
- PWC do no harm to the ocean floor. The coral reefs are being damaged by black water, bleaching, red tides and oil spills, not by PWC or fishermen.
- More education is needed-reckless behavior is destroying coral and scarring seagrass beds.
- Mooring buoys focus impacts to specific areas. Proposing to not create more because these actually harm the reefs more than help
- Permitting process for restoration projects needs to be streamlined. The process should be easier/shorter when and because restoration projects are beneficial. This comment pertains to the US Army Corps nation-wide permit system.
- Develop markets for ecosystem restoration activities in the FKNMS to provide sustainable funding solutions that can endure beyond the current limited duration approaches, such as NOAA's TNC administered coral restoration partnership grant funded by the American Recovery and Reinvestment Act (ARRA). While we have great respect for the restoration strategies developed by the ARRA partnership non-governmental organizations (NGOs), unfortunately these grants are time-limited.
- Recent cuts in the NOAA budget for coastal conservation have limited funding to only those projects with the highest priority and that provide essential services. Additional proposed cuts in the NOAA budget (e.g., Aquarius Reef Base) are a further example of the uncertainty inherent in relying on such funding mechanisms. ARRA funding provided one-time support to invest in the infrastructure and development of coral nurseries.
- Consider whether Conch Reef will remain a Research Only area if Aquarius is removed.

### Suggested Strategies and Tools:

- The FWC has received a request from the South Atlantic Fishery Management Council (Enclosure 2) to initiate efforts to identify and evaluate conservation measures that provide protection for the federally and state-listed corals, *Acropora palmata* (elkhorn coral), *Acropora cervicornis* (staghorn coral), and *Dendrogyra cylindrus* (pillar coral) in State waters. In addition, they have also requested that the State work closely with lobster fisherman, the scientific community, and other stakeholders to restrict lobster trap fishing in areas with high *Acropora* spp. and *D. cylindrus* abundance or in locations where large "super" colonies occur (i.e., they have substantial contribution to the populations' gene pools) to reduce fishery interactions with these listed corals. There will likely be zoning and regulatory implications for the FKNMS associated with consideration of this request, therefore the FWC recommends that this request be addressed through the FKNMS Management Plan revision process. The FWC feels the open stakeholder process being conducted by the FKNMS for the Management Plan revision would provide an opportunity for resolution that would meet a broader suite of needs. In addition, a workgroup could be created to consider this request comprehensively with other coral specific issues identified during the comment period.
- Restoration and restoration research efforts in the FKNMS have traditionally been focused on coral species and coral reefs. The FWC would like to see expansion of such activities to include additional species and habitats that will encompass a more ecosystem-based approach for management in the Sanctuary. The FWC recommends restoration-related issues be addressed in the FKNMS Management Plan revision process through the creation of a Restoration Workgroup. The Restoration Workgroup would be responsible for developing a guidance document to be used during the Management Plan revision process. The document should address, but not be limited to, the following restoration related issues:
  1. Identification and prioritization of areas that would benefit from restoration (e.g., Pelican Shoal for roseate terns) and restoration research activities. This will better focus and support funding and permitting needs for these activities.
  2. Identification of areas that are appropriate and would facilitate restoration research activities. This would require consideration of amending the current zoning strategy and

regulatory constraints to allow for placement of artificial structure (conducting manipulative research) in areas where it is not currently allowed (e.g., Eastern Sambo Research Only area), and also in areas that are open and not specifically designated. Consideration of this issue should be coordinated with the suggested Artificial Reef Workgroup.

3. Evaluation of permitting requirements for conducting restoration and restoration research activities as well as providing recommendations for streamlining the permitting process to better facilitate such activities.

- Work on actively restoring the keystone species like stag horn and Elkhorn corals, and *Diadema*.
- To confront the challenge of inconsistent fund flows provided by grants and to support long-term coral restoration and ecosystem recovery, competitive markets for restoration in the marine environment are needed, using approaches that have generated environmental and economic returns for numerous terrestrial resources such as in these examples:
  - Red Hills of Florida and quail (<http://www.perc.org/articles/article824.php>).
  - White Rhinos in South Africa (<http://www.perc.org/articles/article1409.php>).
  - Economic incentives for rural farmers to preserve tropical forests (<http://walkerfoundation.org/net/org/project.aspx?projectid=93032>)
  - The first indigenous tribe in the Amazon and globally to earn carbon credits under internationally recognized standards for keeping carbon locked in trees (<http://www.foresttrends.org/announcements.php?id=232>).
- Focus restoration efforts on more of an ecosystem/system-wide scale (such as restoring *Acropora* throughout the reef)
- Ecosystem-Scale Restoration Recommendations:
  - Increase the level of priority assigned to this activity and revise Sanctuary-wide regulations to facilitate ecosystem-scale restoration.
  - The FKNMS should develop a set of Best Management Practices (BMPs) in consultation with other relevant agencies and ecosystem-scale restoration practitioners.
  - Subject to coordination with the FKNMS, ecosystem-scale restoration activities conducted in adherence with BMPs should be allowed in all areas of the Sanctuary unless specifically prohibited by a zoning classification that would be jeopardized by manipulation (e.g. Research Only Areas as currently defined).
  - FKNMS staff should become leaders in ecosystem-scale restoration activities in the Sanctuary. This is not to say staff have not focused on this issue. It is a recommendation that ecosystem-scale restoration should become as central to staff activities as damage assessment and restoration of acute impacts, law enforcement and other focal activities.
- Revise Special Use Area regulations to better support ecosystem-scale restoration.
  - Develop a less restrictive alternative to the current Restoration Area zoning classification. The current Restoration Area regulations should continue to be an option but be more accurately described as “Closed Restoration Areas.” A new “Open Restoration Area” designation should be developed and implemented to facilitate restoration in a variety of ways without completely restricting public access.
  - at least two activities should be prohibited in Open Restoration Areas;
    - Anchoring without a permit should be prohibited to limit accidental damage to restored benthic organisms. Permits for anchoring would be issued to restoration practitioners.
    - Lobster and stone crab traps should be prohibited to limit accidental damage to restored benthic organisms.
  - Underwater nurseries may be a unique class of Closed Restoration Area where only permitted restoration practitioners are allowed to anchor or establish moorings and dive.
- “Open Restoration Areas” (see 2a above) should become an element of the FKNMS Zoning Action Plan and the management activities that stem from that plan.
  - Open Restoration Areas could be entirely new zones that are not currently Sanctuary Preservation Areas, Ecological Reserves, Special Use Research Only Areas or Wildlife

- Management Areas. Alternatively, Open Restoration Areas could be reclassifications of existing zones. Or, they could be reclassifications of just portions of existing zones.
- Current zones, or portions of current zones, with existing mooring buoys could have the number of mooring buoys reduced when they are converted to Restoration Areas in order to reduce the total number of snorkelers and divers causing damage to benthic organisms in the Open Restoration Zone.
  - Objective restoration benchmarks should be established upon creation of an Open Restoration Zone and once those benchmarks are achieved consideration should be given to reversion of the zone to its previous designation or a designation less restrictive than Open Restoration Area.
    - Reversion could be entire or partial. Entire reversion would result in reestablishment of the same regulations and management that existed prior to creation of the Restoration Area. Partial reversion could take many forms but would provide a level of protection intermediate between the Open Restoration Area and the regulations and management in place prior to the Open Restoration Area.
  - Consider revising the Conch Reef ROA, as follows:
    - changing the Special Use Area category (e.g., change to facilitated use?) based on the outcome of Aquarius funding and / or removal;
    - reconfiguring it so its boundaries are congruent with the Conch Reef SPA (at a minimum at the SW boundary, e.g., "Fill in the corner").
  - In May of 2011 Florida Keys Commercial Fishermen's Association, FKNMS, State, Federal and Environmental groups initiated a coral workshop to address additional protections for Acroporids in Federal waters and also within the FKNMS, which resulted in the development of 60 coral protection sites from Newfound Harbor to Key Largo. We also identified a number of areas within state waters that could easily be incorporated into the system. All consumptive activities within these areas should be prohibited including commercial spiny lobster and stone crab trapping, commercial harvest by diving and recreational harvest of any type including spearfishing. These sites should also be declared no anchor zones.
  - NOAA and USFWS should consider a diver fee system and boater license system to manage these activities and raise funds for law enforcement and restoration activities; any funds collected need to stay local.
  - NOAA and USFWS need to consider limited access areas to restore degraded habitats and to study the effects of restoration efforts.
  - NOAA and USFWS should consider flexible zones to address over fishing concerns, aquaculture, restoration, spawning season closures, and unanticipated resource issues.
  - Prior to diving in the FKNMS all divers should be required to complete a course, such as the Blue Star program, that educates them on the negative impacts of coral contact.
  - By marking SPA's it has increased the diving and snorkeling activities and done more harm to the corals than good. Some of these heavily coral covered areas may need to be no use areas.
  - Science shows that closed areas inside the FKNMS have not had a positive impact on the corals and there is concern among many that water quality is the major problem. The FKNMS needs to focus first on the water entering the sanctuary that is having a negative impact on the corals.
  - Increase no take zones to include all reefs, spawning grounds and fish hatcheries.
  - NOAA should prioritize coral reef restoration and should make permits available for science based coral reef restoration, including for small sites to be seeded with coral. Mote Laboratories has been a leader in this area so their efforts should be the guide.
  - NOAA must provide greater protection for coral reefs for future generations:
    - limit mooring in reef areas and monitor against overuse;
    - Coral reefs are very delicate organisms - even touching coral can kill it.
  - A casita program would and could assist your efforts, Mote Marine's efforts and FWC effort in coral and fish species restoration.
  - NOAA should give a casita pilot program a chance to help with coral restoration, fish restoration and lobster in the manner FWC scientists have found that it will if given the chance.

- "Like to see ecosystem scale restoration more of a prominent activity. Not just injury restoration (example: seagrass and coral groundings)."
- "I am supporting closed areas with moorings as an alternative to anchoring and having seen the benefits of existing closed areas like Western Sambo where it goes from shore to the reef, covering all habitats, I support existing closed areas."
- "Revisit existing no lobster trap zones for *Acropora* protection to see if they can fit into the larger zoning process."
- Zoning can play a vital role in protection of the two Endangered Species Act-listed acroporid corals, state-listed pillar coral and the other Caribbean corals proposed for listing under the ESA. The no-lobster trap areas set aside in 2012 to protect the *acroporids* should be revisited in the context of comprehensive zoning to see if overall zoning can be simplified (i.e. fewer zones doing double or triple duty as opposed to many zones accomplishing only one purpose such as protection of *acroporids* from traps.) Monitoring of coral populations should be used to adaptively manage these area closures. For example, if a robust staghorn coral population is located outside of the no-trap area and a nearby no-trap area is found to have little staghorn coral, it would be productive to switch the two if all other considerations are equal.
- "Like to see a mooring buoy at Boca Chica Rocks (near shore patch reef inside Western Sambo Reserve)"
- "Focus on ecosystem restoration of coral reefs in FKNMS"
- "Concerned about trout lines around reef areas."
- "Stricter LE for vessel groundings."
- "More mooring buoys on reefs."
- "Expand the sanctuary to include continental shelves and slopes (e.g. deep reefs)"
- "Diving pressure on "fishing" reefs needs to be accounted for."
- "More partnerships between government and private sector. Example: consider tour company surcharge per guest that could be used for coral restoration."
- "Propose temporal and rotating closures of reef areas to allow for restoration and work with Mote Marine Lab to do so."
- "Better information sharing network. Better education in general. Address divers who flip coral heads for lobster. More signage at boat ramps, outreach to schools, work with Tourism Development Council, use social media, more aggressive approach to outreach and a bigger media/marketing budget. "
- "Permit and encourage development of new natural reefs in addition to artificial reefs. Utilize public/private partnership to do so. "
- "Increase coral nurseries and transplant projects."
- How many PWC have been towed out of seagrass flats and off the reef?
- Develop a less restrictive permit process for coral reef and eco restoration.
- Open more areas for coral reef restoration and allow private interest to help fund reef restoration
- Establish coral restoration zones to give them time to establish and recover; time to establish a solid base
- Reef closures (temporary) so they can recover.
- Manage reef structures; better coordination between the different management agencies of reef tracts through South Florida.
- Mark coral restoration zones as "no entry".
- I am very supportive of artificial reef structures that support life. Ex: The Gulf side of Fl is flat for a long distance, which structures can be installed 5, 10, 20, 30 miles offshore) to take pressure off of natural reefs. They will support a lot of life. It's a win-win situation.
- Operators bringing people to reefs should be part of reef restoration projects. My company spent tens of thousands of dollars for growing corals, we know it works. Our role can be to work with marine scientists. We (snorkel operators) do give back, fund research projects for growing corals. We can shut down patches, small tracts of reef, for six months at a time to allow for the corals to recover. I support a 'restoration' tax on commercial trips: which is part of a solution.
- Clarify when closing off reef tracts, do it in conjunction with Mote, NOAA, etc.

- Like to see permitting process coordinated between state and federal agencies for coral reef restoration. State permitting process is more onerous. DEP and NOAA can talk to have a consistent permitting process.
- No recreational or commercial Lobstering in NOAA fisheries *acropora* (coral) zones.
- More fish of all kinds and sizes are needed. This can be accomplished through (1) protection of habitat, (2) habitat restoration on the ecosystem level, and (3) creation of zones for habitat restoration. Make the habitat restoration process approved sanctuary-wide so as to streamline the process and make it easier to do.
- Coral aquaculture should be considered. Consider aquaculture in the Florida Keys in a sustainable way. Can also do aquaculture for habitat restoration.
- Keep no anchor at offshore reefs
- He would like to see more concrete balls to attract coral and would like to see a focus on coral and what threatens it.
- If manipulative research on active restoration techniques is not allowed in Research Only Areas then establishment of new "Restoration Research Only Areas" where such manipulative experiments will be allowed should be considered.
- Consider the creation of restoration zones where restoration is the primary activity. See "Ecosystem-Scale Restoration," below.
- NOAA should manage the Florida reef tract in Miami Dade, Broward and West Palm Counties even though it is outside sanctuary boundaries, since it is an extension of the same reef tract.
- NOAA and USFWS must establish significant areas to protect hard bottom.
- NOAA should prohibit activities (sandbar anchorage) that are destroying submerged resources in the Rodriguez Key Wildlife Management Area, and should consider a no-anchor zone, and expanding the no-motor zone.
- "Provide better aids to navigation around critical habitat"

## **Fishery**

### Issues:

- The diversity of the FKNMS attracts a broad user base with tourism and recreational pursuits topping the list. Second in terms of economic importance and also the second largest employer in Monroe County is the commercial fishing industry. The Florida Keys are ranked as the #1 commercial seaport in the State of Florida and #1 in the Southeastern United States. Protecting the eco-system of the sanctuary is vital to protecting the commercial fishing industry and providing for our mutual long-term financial stability.
- "Concerned about trout lines around reef areas."
- Financially compensate commercial fishermen. Traditional fishing grounds are rezoned for restrictions.
- Do something about commercial traps in channels and on resources.
- There are way too many permits needed to commercially fish, it makes it hard to have a commercial fishing business.
- Make fishing regulations specific to zones. Fish from Dry Tortugas have a different origin than those spawning off Marathon.
- There should be more consistency in fisheries regulations between state and federal waters and that size and bag limits should be the same.
- No more fishing regulations needed.
- He sees a lot of stuff on bridges like catching juvenile tarpon and keeping them.
- Unlimited access to a depleted fishery is equally as bad as no access to a healthy one. It is our hope, and our sense that the Sanctuary aims to find a healthy balance between the two extremes.
- Reduce or eliminate shrimp trawling as a commercial method of catching shrimp in the sanctuary or selected areas of the sanctuary because:
  - it is a destructive fishing method that kills a lot of bycatch;
  - it disrupts soft-bottom habitats that are important feeding grounds for reef fish;
  - Soft-bottom habitats near no-take reserves should receive protection from trawling, even if they are still fished using other methods, to improve reserve effectiveness because of the shrimp food supply.

### Suggested Strategies and Tools:

- NOAA and USFWS should consider flexible zones to address over fishing concerns, aquaculture, restoration, spawning season closures, and unanticipated resource issues.
- Limited entry should be considered for all recreational users: boating, fishing, diving, and personal water craft.
- Open the Marquesas to a limited license for commercial rec. fishing (guided shallow water fishing), similar to Everglades National Park.
- "Use artificial reefs in 150' -200' of water to enhance the red snapper fishery."
- "Fisher management – continue efforts in support of NMFS establishing a South Florida Council to address issues and provide continuity to regulations both state and Federal, more effective local management with faster action to issues."
- "Need year-around bag limits on all fish species, especially ones that are restricted."
- "Bag limits on deepwater species, anything deeper than 150 feet, Instead of size limits, (Example: red grouper). Better studies on survival rates of embolized fish and venting tools and how many of these fish are surviving. Like to see “an independent study” not NOAA fisheries. Would like to see the fishermen do it themselves."
- "Every time they do a closure whether seasonal or an area, they're putting more pressure on other areas or other surrounding species creating an imbalance on the fisheries. Regulate with bag limits instead of closures."
- "I think the distribution of fishing regulations needs to be drastically improved because it is literally impossible to get correct information. In the last 3 months I have received contradictory info from FKNMS, FWC, and NMFS, all with the caveat that if they give me the wrong info and I

get caught I'm still liable even though misinformed. There needs to be one central place where we can call to get current info that we can follow without fear of prosecution, when we're given the wrong info from the very agencies that enforce it. (Example: Grouper fishing in the Gulf in April. Conflicting info provided)"

- An effort to simplify fishing regulations for inshore and offshore.
- "More artificial reef habitat to enhance fishery production (i.e. fishery industry in Japan)"
- "Conduct examination of fish populations at least every 5 years to determine the status of certain fish species, and then, based on the surveys, determine whether to reopen or close fishing of certain species. (e.g. Goliath Grouper, Red Snapper, Tarpon, and Permit)"
- Develop a new process in which the Inspector General becomes involved and people are able to talk to the IG about fisheries/management issues.
- Regional fisheries management within Monroe County.
- Discussion of a regional management zone for the Florida Keys, reflecting the unique character of the area, has only recently received support from the SAFMC, GMFMC and FFWCC. While there has been talk of creating a joint committee to review the efficacy of such a management scheme, progress on the issue has been slow. We feel the issue has merit and would encourage the FKNMS managers to engage in such a discussion with state and federal officials.
- The waters of Monroe County and the Sanctuary fall between two NOAA fisheries sub-regions and their associated management councils (SE Atlantic and Gulf) which often have differing regulations. It requires Keys fishermen to adhere by two separate sets of rules, hold two separate sets of permits/license, and to deal with two separate councils. Ideally, the creation of a new Keys specific sub-region would resolve these problems while better serving a resource that holds little in common with the majority of the other two sub regions. At the very least, a shift in the boundary between the two existing sub regions so the Keys fall into one or the other would be a workable solution.
- "Establish its own FKNMS fishing council."
- "FL Keys should have its own fishing council and regulations."
- Florida Keys/Sanctuary should be its own management unit outside of marine fisheries commissions, SAC (South Atlantic Council), and Gulf Council
- "FKNMS should take regional leadership control from the South Atlantic and Gulf of Mexico Fishery Management Council to management Monroe County fisheries."
- Simplify fishing rules in the Keys by making the state and federal laws more consistent and have Keys be under one Fishery Management Council (as opposed to South Atlantic and Gulf). Rules should be adaptive and updated more often.
- "Use size specific artificial habitat to help bring back Red Snapper population."
- "Less regulation on every fish and less regulation on trappers."
- Limit trapping areas and shorten trapping season. Concerned about the high prevalence of trapping equipment, and ghost traps.
- "No change on the current spearfishing regulations."
- Keep spear fishing in the back country.
- While recreational scuba diving and snorkeling are not inherently consumptive in nature, DEMA suggests that the FKNMS support consumptive activities such as spear fishing within its boundaries when the following criteria are met:
  - A. Hook-and-line fishing activities within the sanctuary are allowed and supported by sound science and sanctuary policy;
  - B. Sound science exists to support consumptive activities such as spear fishing and taking lobster;
  - C. Sanctuary policy supports such consumptive activities.
- DEMA also recommends that consumptive activities such as spear fishing and taking of lobster are appropriate when hook-and-line fishing activities are permitted, when sound science supports such consumptive activities and when the policies of the FKNMS support such consumptive activities. Non-consumptive, low intensity-level activities should be allowed to continue, and should not require permitting or be restricted as to access or activity.



- Take into consideration the already protected areas of the national park service, before closing additional areas. E.g. everglades national park, Biscayne Bay card sound, to upper keys spear fishing.
- No spear fishing or lobstering when on SCUBA unless you are commercial.
- "Move recreational spearfishing one mile offshore of highway US 1."
- "FL Keys should have its own fishing council and regulations."
- "Establish limited entry program for commercial fishermen. Have open entry permit in the beginning and then issue permits based on fish landing history."
- Have a lottery system for guides and recreational flats fishermen
- "No more closures for fishing. Close some reefs to dive boats to allow fishing (e.g., 90' Toppino, Western Dry Rocks)."
- "Closures between fishing and diving should be supported by the scientific data. You need to control for diving pressure well as fishing pressure."
- "Want fairness in protection of resources. Fishing concerns have not been accommodated to the same degree as diving/snorkeling interests, particularly on reefs."
- "There needs to be a better mechanism for fishing interests to be reflected in the regulations, and there should be reefs exclusively for fishing and not for diving."
- "Closure of all groupers for protection of gag grouper needs to be changed - should allow bag limit."
- "We need less regulation on groupers and more on mutton snapper."
- "Regulations on grouper should be backed by scientific data for the region, especially for black and red grouper for Monroe County."
- "More back country should be open for fishing and trapping (e.g., stone crab) i.e., no depth restrictions."
- "There should be some protection of shallow water habitat from fishing."
- "More one-on-one discussion between decisions makers and scientists with the local experts, fishermen."
- "Diving pressure on "fishing" reefs needs to be accounted for."
- "Fishing and diving and open areas should be exclusive to a single use."
- Make an exclusion zone around fishing vessels with lines in the water (example 200 yards).
- "No fishing for spawning aggregations."
- "More deep artificial reefs with rotating fishing closures to have more options on which to fish."
- "Institute regulation for catch and release of sharks and rays, or a size limit, or use tags."
- Closure of tarpon fishing
- Increase hogfish size limit
- I don't want more areas (back country areas) shut off permanently. It needs to be reviewed more often to determine if they can be opened back up, referring to fishing areas
- Have more fish-friendly types of fishing like barbless hooks.
- Extend state waters to 9 miles because the fishing regulations are too complicated.
- Install mooring buoys especially for fishermen, example-Western Sambo, in fishing areas.
- There is a concern about the grouper closure that when it opens each year, there could be over harvesting and damage to the habitat and fishery.
- Reference the Trap Movement Study by the FWC and incorporate this study in the Florida Keys National Marine Sanctuary decision-making process. It should be released in October 2012; check with FWC.
- Eliminate commercial shrimping within the Sanctuary.
- Increase sanctuary boundaries in Gulf, north of Key West by about 60 nautical miles. Limit shrimp trawling in this area. Keep out the shrimpers coming from Texas, Alabama and Louisiana during the winter months. There are all kinds of restrictions on snapper, grouper and yet shrimpers can catch so much by-catch that is just killed. They have made a large impact in the area just north of Key West.
- Any keys based fishing regulations be under one set of rules.

- Supports the efforts of NOAA OLE (Office of Law Enforcement) to target and prosecute casita fishermen and poachers.
- A tag program should be implemented for recreational fisheries.
- Consider that fishery closures lead to economic impact to commercial and recreational fishermen. Potential compensations to commercial industries (diving, fishing, etc)?
- Seasonal opening and closing of certain fish species.
- Raise size limits gradually over long period of time rather than sudden increase in the size limits.
- Eliminate swordfish long-lining in Gulf off of Key West.
- Commercial fishermen self govern themselves. More meetings between fishermen and the Sanctuary, FKNMS, are a good thing: open up the dialogue. We (the commercial fishermen) take a proactive approach.
- Review four month grouper closure to go back to two month closure (Jan & Feb)
- Zones proposed by the Lower Keys Guides Association designed to limit conflict between fishermen and other users, provide needed protection to habitat and those fishing here, yet in no way interfere with wise use by other users [commenter provided charts for reference, see regs.gov document NOAA-NOS-2012-0061-0224]:
  - Key Lois (Loggerhead basin): this should be a temporal catch and release pole/ troll zone (Feb-June). This basin is highly used by migratory tarpon and flats fishermen from Feb thru the end of June. It is also located near highly populated areas and a heavily trafficked channel (Bow Channel). This zone would limit conflict between boaters "cutting corners" thru the basin and flats fishermen targeting tarpon there. After June, the basin is no longer used by tarpon and thus these restrictions would not be necessary.
  - Content Keys and Upper Harbor Key: This should be a year round, catch and release, pole/troll zone; except for Content Pass which should be marked and remain open use to allow transit between the basin and the Gulf. Many non fishing boaters ignore the channel and "run" the grass flats in order to reach shallow sandy areas or the Gulf. This zone would end this practice, limiting conflict between flats fishermen and boaters while protecting shallow grass meadows.
  - Pearl basin: This should be a temporal idle only area (Feb-July) from Calda to Pearl Banks and between the NW Channel and Man o' War Harbor. This zone would relieve conflict between fishermen and boats transiting the basin headed to the NW Channel.
  - Seaplane basin: This should be a temporal idle only zone (Feb-June). Like Loggerhead Basin, this area will seasonally hold large numbers of tarpon and flats fishermen, but is located near a high traffic area. The zone would prevent conflict between flats fishermen and other boaters, but would in no way hinder traffic through the area.
  - Western Sambo Ecological Reserve: The northern quadrant (<10ft) of this zone should be idle only and opened up to allow catch and release fishing and bait harvest (with permit).
  - Marvin Key and the Barracuda Keys: This zone should be a year round, catch and release, pole/ troll, with idle only alternative in navigable channels. Like the Content/Upper Harbor zone, this zone will protect shallow fishing areas and relieve conflict between fishermen and other boaters who transit the area to reach "party areas"
  - Moser Channel banks: This should be an idle only zone. Due to their location, the lack of navigational features in, and the poorly draw charts of the area, the banks are hard to locate and are susceptible to boat groundings. An Idle only zone would eliminate this problem, while preserving fishing access.
  - Boca Grande Key to Woman Key: This should be an idle only, catch and release zone, with a bait harvest exception (permit required). Such zoning would help to protect grass flat from grounding and limit user conflict in a high traffic area.
  - Marquesas: This area should be protected as a catch and release only zone. This area, most frequently utilized by flats guides could benefit from C&R regulations. The only exception to this is that bait harvest should be allowed (with permit).
  - Lakes area (LaVina Bank): This zone should be a year round idle only area, with the Little Mullet channel remaining normal use. This zone will protect grass flats/ fishing areas from damage by unknowledgeable boaters in what is a poorly marked and poorly mapped area.

- Tarpon Migration Lane: Consideration should be given to establishing a temporal (April-June) idle only zone to protect the Oceanside migratory travel lanes used by Tarpon (*Megalops atlanticus*). The water they frequent (<10ft) is heavily used by boaters. This traffic greatly affects this species and generates daily conflict between fisherman and other users.
- The Sanctuary System is interested in promoting awareness about fishing in the National Marine Sanctuaries, thus the Florida Keys website should have a fishing map:
  - show where the breaks are between the different zones and not just SPA's RO's and ER's, but also showing Monroe County waters, state waters and where state regulations apply, federal waters, and Gulf waters;
  - once at the zone have a drop down menu for different species, size limit, bag limit, etc.;
  - show data buoys so fishers can check the weather while on the page;
  - show mooring buoys available for fishing.
- NOAA should prohibit all commercial fishing activities within 2 miles of US1 because this will allow juveniles the opportunity to grow with less disruption, and will be easy to comply with given today's charting software.
- NOAA management practices should differentiate different styles of sport fishing into distinct groups (flats, light tackle, offshore) and should focus on the specific impacts of each.
- Sportfishing is a historical use of sanctuary waters and one for which best practices used worldwide today originated in and were refined in the Keys.
- Non-extractive zones that would limit access to fishing, but not other uses, are unacceptable and would encourage low-dollar/high-volume use; while flats fishing protects low-volume use.
- Because flats fishery target species (bonefish, tarpon, and permit) are highly migratory, non-extractive zones will have no positive effect on them (such as serving as refuges). Instead they will concentrate flats fishermen, causing more pressure on target species.
- For "no-take" areas where habitats and species are of concern, NOAA should change the definition of "no-take" to allow for selective management (e.g., an area designated for grouper restoration should allow the targeting of other species). Where "no-take" areas are used to eliminate user conflict the rules should remain.
- Temporal closures should be studied to a much further extent before being approved.
- "Where possible restrictive zoning should be made temporal to have the greatest positive effect on the resource while the least negative impact on the user groups."
- "No temporal closures, the sanctuary needs to allow fisheries management to regulate fisheries, they have public participation and input, something this circumvents, removing the public's and users' rights to the resource."
- Consider having temporal marine zones to reduce stress on the reefs from concentrated human activities. For example, close Rock Key SPA from all activities for two years, while keeping Eastern Dry Rocks SPA open. After the two years, reopen Rock Key SPA and close down Eastern Dry Rocks SPA from any human activities.... or something like that. The temporal scale can be seasonal and/or conditional.
- Permanent area closures transfers the effort to other areas (closures don't accomplish purpose). Temporal closures better.

## **Bait**

- "Allow Sabiki throughout FKNMS."
- "Allow sabickes to be used to catch bait in SPA's for charter boats that have bait permits"
- "Like to see bait rigs (Sibiki Rigs) allowed in closed areas for bait fishing only."
- Open SPAs to bait fishing castnet and sabaki
- Allow Sabiki or Airhook fishing rigs in SPA's where they are legally allowed to catch bait via cast nets. Sabiki/Airhooks provide healthier bait and you're able to target amount wanted. There's too much mortality with a cast nets.
- A sanctuary wide permit to catch baitfish with Sibiki Rig and cast nets.

- "Fishing in SPA's, catch and release and bait fishing should be eliminated in the zones so regs. in zones are consistent."
- Regarding cast net baitfishing, NOAA should eliminate issuance of baitfish permits (e.g., eliminate activity from SPAs). Per comments submitted during the 5 year management plan review process, ceasing this activity in the SPAs would increase protection of these areas and clear up confusion among sanctuary users about what is or is not allowed. Some permit holders have stated they do not use the permit to fish in the zones, a justification for reducing the areal extent of this permitted activity; there are indications that the permit holders could conduct the activity in other areas than SPAs. Secondary options (listed from more restrictive to least restrictive/most liberal):
  - Cease issuance of baitfish permits in the 14 SPAs that do not allow catch and release fishing (e.g., only allow it in four SPAs);
  - Eliminate the allowance of lampara nets (commercial gear) from baitfish permits;
  - Create a new sanctuary permit category to address permit issuance (currently use "Otherwise further sanctuary purposes, including facilitating multiple use" category);
  - Write an exemption to sanctuary no-take regulations at 922.164(d) to allow baitfishing using certain gear and for certain species.
- Regarding hair hook baitfishing, NOAA should eliminate issuance of baitfish permits (e.g., eliminate activity from the three SPAs where it is currently permitted). While this activity was not considered during the 5 year management plan review process, ceasing this activity in the SPAs would increase protection of these areas and clear up confusion among sanctuary users about what is or is not allowed. The number of permit holders has declined since inception of the hair hook permit program in 2004, with an average of only 26 permits per year being issued (for the past six years). A minimal number of permit holders state annually that they do not use the permit to fish in the zones. Secondary options:
  - Create a new sanctuary permit category to address permit issuance (currently use "Otherwise further sanctuary purposes, including facilitating multiple use" category).
  - Write an exemption to sanctuary no-take regulations at 922.164(d) to allow baitfishing using certain gear and for certain species.

### **Catch and Release**

- It is with the best interest of the Sanctuary to consider requiring catch and release (C&R) fishing in all its management decisions. C&R has a long and successful history in freshwater fisheries management worldwide, and has been the daily practice of flats fishermen for decades. When practiced correctly, it has almost zero accidental harvest and allows for continued use of the same resource. The fish most often targeted are hard to catch. The best example being the permit (*Trachinotus falcatus*). If a single one is caught on fly over the course of several days fishing, it is considered a success. This low catch rate is not indicative of their absence, just the challenge they offer. Yet anglers flock from all corners of the world for the opportunity. This low impact/high dollar is the model of C&R.
- C&R automatically limits use; rare is the fisherman who targets snapper and grouper with no hope of bringing one home. C&R offers a serviceable compromise. It simultaneously provides habitat/resource protection without adversely impacting the economics of fishing. So:
  - C&R is compatible with all current and future zone types, except Research only zones.
  - Some site specific exceptions will exist. If the introduction or inclusion of C&R would result in obvious user conflict, it has no place (ex Looe Key SPA).
- As a primarily low-density, catch-and-release style of fishing, flats-fishing is a low-volume/high dollar industry with small footprint that draws anglers from all corners of the globe.
- Need to address the wording of non-extraction. Refer to principles of rezoning and regulatory review (about fishing, catch and release).
- Non-extraction zones: This needs to be better defined, including catch and release in non-extraction zones.

- Instead of shutting off zones to no fishing, you should regulate to no-kill or catch and release zones.
- Emphasize catch-and-release in all zones.
- "Allow catch and release fishing throughout FKNMS." "Establish catch and release zones"
- Areas of concern should remain catch and release. Supports protecting resources, but don't believe we should restrict use.
- NOAA should make inshore and closed areas open to catch and release.
- WMA's should be open to catch and release fishing. Such as Loggerhead Basin, Content, Barracuda, Marvin Keys. Possibly maintain as no wake zones
- "Open Western Sambo Ecological Preserve to catch and release fishing"
- "More catch and release inside no take zones (example: Western Sambo)."
- Sport fishing tournaments should follow conservation trends such as Steve Trippe's annual Tarpon Tournament in which points are awarded for feeding, hooking and jumping Tarpon; fish are not photographed nor are they taken out of the water; quick and safe releases are important and rewarded.
- "Consider catch and release as alternative to no take where appropriate to conditions and if enforcement is possible"
- "Consider more use of catch and release areas in zones that are manageable with current enforcement resources and strategies."
- "Allow catch and release for any closed areas."
- "Current and future marine zones should allow catch and release fishing."
- "Have time restriction on any closures. Revisit the status every 5 years. Western Sambo ER should be reopened for catch and release fishing."
- "Institute regulation for catch and release of sharks and rays, or a size limit, or use tags."
- Boca Chica area opened to catch and release fishing W.S.E.R.
- Closure of tarpon fishing
- I support science-based pull and trawl zones and idle zones.
- Keep traditional uses in the zones, like catch-and-release in all areas, especially at Boca Chica.
- If Channel key bank system is closed to fishing, will people still be able to use it for catch-n-release? It is such a beautiful place.
- Making all fishing bridges catch and release only may be a little unfair to non-boaters who still want to fish, so consider making some bridges catch and release and others not.
- "Fishing in SPA's, catch and release and bait fishing should be eliminated in the zones so regs. in zones are consistent."
- Eliminate catch and release fishing activity in the four SPAs that currently allow it. Per comments submitted during the 5 year management plan review process, this would address SAC concerns about allowing a consumptive activity in otherwise fully-protected areas, which may be incompatible with the primary objective of resource protection in those areas and may have tangible benefits for protecting resources within the sanctuary.

### **Lobster / Crab**

- "No more trap fishing! (e.g. lobster and stone crab traps)"
- NOAA should lower bag limits, increase licensing costs, and increase enforcement (on the water and at launches/marinas) for lobster mini season because:
  - it is a nightmare to our lobster population, sea floor, and human safety (e.g., divers in nearshore without dive flags or diving 600' from their flag in high traffic areas);
  - it draws more people than we have space for;
  - doing so can decrease the damage done to our fragile ecosystem.
- The damage and stress that lobster season causes to marine life and the environment far outweigh any immediate gain in tourist dollars to Marion County, where lobster fisherman historically arrive in great numbers and cause unspeakable damage to the shallow water sanctuary. This is an extremely lethal plan for the long term.

- Lobster mini season should be regulated better, with the possibility of limited stamps, educational courses, and/or an increase in stamp prices to non-residents which could help fund more enforcement.
- Add the diver education and boater safety requirements to getting a lobster stamp.
- NOAA should keep the lobster mini season because it gets numerous divers out of Keys waters before traps go in, eliminating some diver/trapper confrontations!
- Most damage to the Channel Keys Banks System is from lobster sport diving season when the divers destroy more bottom than anything.
- Most damage to the Channel Keys Banks System is from lobster sport diving season when the divers destroy more bottom than anything. NOAA should make the Channel Keys Banks System a pole and troll zone.
- "Do away with 2 day lobster season"
- "Ban mini season"
- More recreational input from residents from Monroe County on Sanctuary issues – no more mini season.
- "Lobster mini-season continues to heavily negatively impact the environment. The FKNMS should explore ways to reduce this impact including: working with the state to increase the cost of a lobster stamp in the Florida Keys to help pay for more enforcement, possible lobster tags to reduce illegal multiple trips and anything else that will slow down the madness!"
- Use non removable tags for recreational lobster fisherman to stop multiple trips.
- I would like to see lobster mini-season closed. More damage is done to the reefs in 3 days of mini-season than is done in 7 days by a hurricane. I would like to see tags put in place for each recreational lobster landed. The money can be used for installation of better aids to navigation.
- Eliminate mini-lobster season to help keep the integrity of our ocean's bottom in good shape and not be subject to the intense couple of days of it being disturbed to catch thousands of lobsters.
- Replace lobster mini-season with a 2-day mini-season on jewfish. There are too many jewfish, need balance.
- "Increase recreational lobster limit back to 12 for regular lobster season."
- "Increase lobster harvest carapace length to 3 ½ inches or 4 inches."
- Recreational and commercial lobster harvest is a "winner take all" fishery where near total harvest of the lobster population is permitted to occur annually. The annual "two day mini season" for recreational harvest should be eliminated because it is a sickening spectacle of desperation and depravation that has almost no local support outside of tourism interests. The regular season should open with a minimal bag limit intended to discourage over-consumption and bad behavior (e.g., two lobster per person, six lobster per boat bag limit for all non-commercial lobster harvest during the first 30 days of regular season). Commercial lobster trapping is widespread and intense; one only needs to look at the numbers of buoys in the Gulf to understand this is a fishery out of control.
- Commenter (commercial lobster/stone crab trap fishermen out of Big Pine Key's Koehn Subdivision Commercial Fishing Special District since 1978, 15 years on board of directors for Florida Keys Commercial Fishermen's Assoc., 30 year member of Organized Fishermen of Florida) would like his access and usage of the sanctuary to remain status quo: accesses the Gulf for 60% of his fishing by way of Spanish Channel to Harbor Key Light (a marked navigable channel with a controlling depth of at least 4 ft); conducts lobster and stone crab trapping in this area of the backcountry (a FKCFCA and FWC study found the impact of traps on seagrass beds to be minimal).
- "Like to see a reconsideration of the lobster mini season, make it go away. It is a great impact not only on the environment and ocean, but land as well."
- "Revisit existing no lobster trap zones for *Acropora* protection to see if they can fit into the larger zoning process."
- "Tagging system for lobsters just like we do for turkeys and deer."
- "Less regulation on every fish and less regulation on trappers."
- "Limit mini season to just Monroe County residents. Have 1-day mini season."

- "More back country should be open for fishing and trapping (e.g., stone crab) i.e., no depth restrictions."
- "Better information sharing network. Better education in general. Address divers who flip coral heads for lobster. More signage at boat ramps, outreach to schools, work with Tourism Development Council, use social media, more aggressive approach to outreach and a bigger media/marketing budget. "
- No spear fishing or lobstering when on SCUBA unless you are commercial.
- No recreational or commercial Lobstering in NOAA fisheries *acropora* (coral) zones.
- Allow recreational lobster traps like stone crabs.
- If NMFS implements "No lobster trap zones", they should not allow any type of lobster harvesting in those zones.
- Streamline lobster regulations by working with local jurisdictions so that regulations are the same throughout the sanctuary.
- Revise the sanctuary lobster brochure for clarity, and include maps showing boundaries of the various jurisdictions.
- NOAA should require commercial lobster and crab traps to be removed before tropical storms and hurricanes, and should utilize the NOAA weather warning system (which provides several days to weeks advance notice of storms) to advise those affected by this restriction.

### **Goliath Grouper**

- Goliath grouper –lift the ban to help regulate grouper populations.
- "Too many Goliath groupers - something has to change"
- The return of Goliath Grouper is a management success that has restored an apex predator to the ecosystem. Killing Goliath Grouper within the sanctuary should be specifically prohibited, regardless of whether the Florida-wide prohibition on take is lifted, because they have great, sustainable commercial value to the Florida Keys diving and ecotourism economies that outweighs short term harvest values. Plus, with the decline in our water quality and coral reefs, maintaining the attraction of seeing large Goliaths seems a smart choice.
- "Like to see Goliath grouper set up on a tag system or lottery similar to hunting tags, managed by the same people, like alligator or elk."
- "There should be a lottery on goliath grouper."
- Slot limit on Goliath Grouper - 20-60 lbs that you're allowed to harvest
- Reconsider bag limits on certain fish species such as Mutton Snappers and Groupers.
- Seasonal opening of Goliath Grouper with bag limit.
- NOAA should open up a mini season for Goliath Grouper because there are way too many of them.
- "Have a 2 day Jewfish season. It's getting out of balance (too many Jewfish)."
- Replace lobster mini-season with a 2-day mini-season on jewfish. There are too many jewfish, need balance.
- There should be allowed a limited harvest or tag system harvest of Jew fish.

### **Mutton Snapper**

- While no within the scope of this review, action must be taken in response to the over-harvest of Mutton Snappers during their spawn. The obvious Sanctuary-led solution would be to close (temporal or otherwise) the spawning aggregation areas. While this would certainly end the overharvest, it would also be devastating to many fishermen, and not just those targeting the Muttons. Those same spawning aggregation areas hold many other varieties of fish. A better solution would be a change in bag limits. The current limit of 10 per person per day is unsustainable. We recommend a bag limit of 3 per person per day, with only a single daily trip allowed per vessel. Again, we understand that this is not within the scope of the review, but perhaps with a little nudge, the FWC could handle this harvest problem, in far less time, and remove the need for closure.

- NOAA should lower mutton snapper bag limits during the spawn to prevent over fishing and protect the population.
- NOAA should reduce the bag limit on muttons during the spawn to 2 per person and prohibit commercial sale of muttons in order to:
  - allow charter vessels to continue to work, while reducing the biomass harvested to a reasonable level;
  - stop the illegal sale of muttons by recreational vessels from Miami by making it unprofitable for these vessels to operate (due to the lower bag limit; commenter has reported to LEO specific vessels that do this).
- "Stronger restriction during the mutton snapper spawning season."
- "No fishing during the spawning months for Mutton Snappers."
- "Bag limit for mutton snapper and grouper versus closure during spawning season."
- "We need less regulation on groupers and more on mutton snapper."
- Fish Closure areas – reduce bag limits of mutton spawn instead of closures
- Limit mutton snapper to 3 per person versus current 10 per person.
- Reduce bag limit to 2 per person rather than closing more areas to fishing for mutton snapper year around.
- Temporal closure April-July for mutton snapper (during spawning). Example area- Western Dry Rocks.
- No commercial sales of mutton snapper during the spawning season, or any regulated fish during their spawning season.
- Reconsider bag limits on certain fish species such as Mutton Snappers and Groupers.
- Eastern Dry Rocks is being overfished for mutton snapper. He wants to see a daily bag limit of 5-10 mutton snapper per person. Mutton snapper fishing has been destroyed because there are too many goliath grouper and because of overfishing.

## **Education**

- Fishing licenses should require a course on number and size limits of many species.

## **Sponging**

- NOAA should address and re-evaluate whether commercial sponging is still an appropriate practice within the sanctuary.
- "Close sponge harvesting"
- "Sponge regulation (juvenile habitat)."
- Regulate sponging.
- Commercial harvest of sponges should be prohibited sanctuary-wide or severely limited to specific areas where appropriate management can be implemented because: they are an essential component in the marine ecosystem, filtering water and providing habitat for commercially-valuable marine life; they comprise Essential Fish Habitat under the Magnuson-Stevens Act; commercial harvest of sponges is currently effectively unregulated and harvest methods are environmentally damaging.
- "Close an area from Key Haven to Sugarloaf on the Gulf side to sponging and study how this closure affects/improves water quality."
- "Support research to study any sponge closures and affects to water quality."
- "Stop commercial sponging within one mile of shore."
- Commercial sponging moved 1 mile offshore and outlaw hooking sponges in Gulf and Atlantic and allow cutting.
- I don't know how much research is done about taking sponges. Sponges are filtration units. Sponges are being taken in bays, shallow areas, and channels that don't need to be taken. I support research to understand the effects of this sponge removal.
- Need for better regulations of the sponging industry in the Key West, National wildlife refuge due to the damage it has been causing to the hard bottom of this area.





## **Invasive / Non-Native**

### Issues:

- Concerned that lionfish populations in closed fishing areas will not be kept in check. What is to keep the lionfish population from exploding in closed areas unless you can still get lionfish in them?
- While the lionfish removal permit program is of great benefit to the popular reefs where the majority of the trained permitted operators are working (e.g., SPA's like Sand, Rock, Eastern Dry Rocks, Looe and others on up the line), no one is doing anything about removing lionfish from the WSER. The public has embraced removal of Lionfish as bycatch when they are out lobstering and spearfishing, so many are removed from other Hawk channel patch reefs, but the patch reefs in the ER do not benefit from any removal and are in a sense protected by sanctuary regulations. To address this allow sanctuary staff to spear/remove Lionfish in the WSER either during Team OCEAN outings or while on their own time and personal vessels.

### Suggested Strategies and Tools:

- "What about getting rid of lionfish in no use areas and in SPAs?"
- NOAA should 'encourage' lionfish harvesting within the sanctuary.
- "The FKNMS should have an exotics removal policy on the removal of all non-indigenous species from the FKNMS waters."
- FKNMS should develop and implement a plan to deal with invasive marine species.
- Management agencies should develop a robust marine invasive species early detection and rapid response plan and capacity to implement the plan in order to reduce the chances of future biological invasions.
- "Allow collection of invasive species other than lionfish throughout FKNMS (e.g. cop coral)."
- "Ban on release of all genetically-engineered, modified, or altered organisms."
- "Enforcement of current ban on release of any invasive plants, animals and organisms."
- "Don't require a permit to kill invasive species. Should be able to spear lionfish wherever. "
- "Add language into the management plan that states: 'A recreational fishing license is not required for anyone who snorkels or dives to collect lionfish.' Perhaps go as far as to say: 'For anyone that sells lionfish commercially, to waive fees and/ or permits when sold to fish houses and restaurants.' You could also add that lionfish can be caught in SPA's and reserves using the clear bags, as long as no other fishing gear, including fishing poles, tackle, spearguns, etc. are on board the boat, or in possession of snorkelers and divers."
- "Institute a pet fish buy-back program."
- Establish a lionfish buyback program for aquariums
- I oppose any permitting to enter SPAs. It will drive away tourism. Lionfish taking needs to be open to pole-spear fishing for the lionfish permit program in SPAs. I see the majority of lionfish in SPAs. Allow this for responsible operators that have the skills and knowledge of the area
- Education about exotic species is doing well. Need to continue and maintain this program.
- Much more aggressive stance on evasive exotics. No fishing licenses for lionfish or any exotic species. No more regulating the taking of invasive species.
- Working groups for invasive species in FKNMS.
- No live animal imports!
- Bounty for lionfish
- Locate and eradicate invasive exotic plants on Refuge islands, as was promoted to the Refuges beginning back in the 1980s
- The FWC requests the FKNMS review regulations that act as barriers to conducting control and/or eradication activities for invasive species, and consider the need for certain exemptions to both Sanctuary and FWS regulations to facilitate invasive species removal efforts.
- Take an aggressive approach to lionfish removal in Pennekamp Park, quickly becoming a refuge for this invasive species. "Partner with their staff to develop a plan to access more effectively, especially removal by spearing."

- SPA's are doing well with the current lionfish process, but the sanctuary should address lionfish removal in research only and ecological reserve areas.
- Develop a lionfish educational brochure, similar to the sanctuary's spearfish and lobster brochures (all the rules in 1 place).
- Provide more incentives to eradicate lionfish.
- Consider options to address lionfish take from fully protected zones:
  - Create a new sanctuary permit category to address permit issuance;
  - Write an exemption to sanctuary no-take regulations at 922.164(d) for certain gear types and certain zones;
  - Write an exemption to all no-take regulations that indicates lionfish are not subject to those regulations;
  - Create an on-line training module that when successfully completed allows a person to be eligible for a permit to remove lionfish from the SPAs. Currently this training is only provided in person by REEF and sanctuary staff, the latter only when time is available. The need for trained lionfish “hunters” is high; we need more than one avenue by which people can get properly trained in removal techniques and sanctuary permit requirements.
- NOAA should address invasive species more proactively by: allowing the collection of Orange cup coral by a licensing system similar to the Lionfish license; and offering a bounty system on Lionfish.
- NOAA should allow discharges of treated sewage from Type II MSDs for the following reasons: to be in compliance with Coast Guard discharge regulations; vessels with Coast Guard certified type II MSDs are allowed to discharge treated sewage outside of 3 miles offshore elsewhere, including in other sanctuaries; such discharges meet verifiable standards; prohibiting sewage discharge regardless of treatment may require some charter vessels to travel 6 miles out to discharge, burning hundreds of gallons of fuel per year.

## Nursery and Spawning Aggregation Protection

### Issues:

- Reef fish spawning aggregations are extremely susceptible to overfishing, and maintaining healthy breeding populations of reef fish is critical for the sustainability of and health of coral reef systems; so, fish spawning aggregations are an example of critical areas that need special protection and management in order to build resilience into a comprehensive reef management program. These sites represent most of the reproductive output for the species that spawn there, and many sites serve as multi-species spawning locations.
- Fish spawning aggregations need protection; fish are under too much pressure already and do not need fishermen preying on them when they are trying to reproduce.
- NOAA and the SAC failed to come up with an adequate plan for the spawning aggregation site SW of Western Dry Rocks off Key West that attracts of many different species at different times of the year (e.g., mutton snapper, permit, black grouper, and gray snapper).
- Scientific results have to be statistically significant to matter – the FWC mutton snapper paper was admittedly not looked at from the point of statistical significance.
  - While I fully support protecting mutton snappers during spawning the science does not honestly and un-biasedly support the reason for a total pathway closure.
  - You will lose all credibility by letting poorly concluded or conclusion-directed science into you reports, once credibility is lost, faith disappears and the process disintegrates.
- "...Riley's Hump reserve ranks among the biggest accomplishments for NOAA. It is a world class marine reserve that protects numerous spawning aggregations, most importantly the mutton snapper."

### Suggested Strategies and Tools:

- NOAA should prohibit fishing during spawning aggregations.
- Restrict the take of organisms during their reproductive season or at their spawning aggregation areas.
- Consider protecting fish spawning aggregation sites to benefit local and regional fisheries management efforts.
- Consider specific closure times (seasonal closures during the time of year when the most vulnerable fishes are spawning), after evaluating detailed research and survey work at the proposed closure sites.
- Closures for certain species of fish may be appropriate in certain areas to protect spawning aggregations. However, after the spawn and with flexibility in rule making, these areas should be reopened for recreational or commercial activity.
- Sanctuary management should work closely with NMFS to protect spawning aggregations of commercially important fish species within the sanctuary, including via seasonal closures of spawning grounds.
- Seasonal and spatial spawning protection
- NOAA should close harvest of mutton snapper during their summer spawning season.
- NOAA should work with the South Atlantic Council to develop a mutton snapper spawning reserve that prohibits bottom fishing in a 2x3 mile area at the aggregation site SW of Western Dry Rocks off Key West.
- Riley's Hump (Tortugas Ecological Reserve - South) is among NOAA's greatest accomplishments, and NOAA should use it as an example of how marine reserves protect numerous spawning aggregations, and how complete protection results in an enhanced population of important species (e.g., Mutton snapper and Black grouper).
- NOAA should establish no take and no disturb zones throughout the ecosystem that prohibit recreational/commercial intervention to determine if these areas create nurseries for other areas.
- Regarding spawning season on the reef, "it should be left as is in the Looe key area."
- NOAA and USFWS should consider flexible zones to address over fishing concerns, aquaculture, restoration, spawning season closures, and unanticipated resource issues.

- NOAA and USFWS need to establish and protect more spawning grounds on an emergency basis, with greater enforcement, and all species of fish should be off-limits to commercial and recreational fishing during their spawning season.
- NOAA and USFWS should designate certain nearshore areas (to be determined) as protected nursery grounds (especially areas on the Atlantic side of the Keys that are high in recruitment of postlarval spiny lobsters), and within these areas should allow:
  - ecologically engineered nursery habitat enhancement programs [commenter provided supplemental background material on his such habitats] to increase the yield (survival rate) of existing postlarval seed stock, which in turn would increase the yield of harvestable stocks;
  - The "seeding" of engineered nursery habitats with seed stock derived from indigenous brood stock (conch, grouper, snapper, marine tropicals, etc.) to be spawned under hatchery conditions.

For more information see commenter's paper "Good News for Troubled Waters" at <https://www.box.com/s/zc0e9qy96310jdm9n4nc>.

- Close harvest of fishes when they spawn, specifically mutton and mangrove snapper, for example temporal closures.
- NOAA should lower mutton snapper bag limits during the spawn to prevent over fishing and protect the population.
- "Bag limit for mutton snapper and grouper versus closure during spawning season."
- Fish Closure areas – reduce bag limits of mutton spawn instead of closures
- NOAA should create a corridor "no-take" zone connecting Garden Key to the South Reserve / Riley's Hump area to allow refuge for fish travelling between feeding areas and spawning sites.
- Mutton snapper reside in the Research Natural Area at Dry Tortugas National Park, and then migrate to Riley's Hump just prior to spawning events. They are protected in the RNA and Tortugas South Ecological Reserve, but not between the two management zones. The sanctuary should expand the TSER boundary to provide a protective corridor between the two zones. A seasonal protective corridor should also be considered, to ensure protection of these important fisheries resources.
- Consider seasonal closures of spawning grounds at Western Dry Rocks, Boca Grande Bar, Eyeglass Bar, Snapper Ledge and sites near the Carysfort SPAs, where commercial boats target fish during spawning events.
- NOAA should change the Western Dry Rocks / Eyeglass Bar areas to no-take zones, as they are well known fish spawning sites and should be protected for the overall future of the resource.
- NOAA should establish no impact, no take zones, specifically Research Only zones, for deep water spawning aggregations identified within the sanctuary (e.g., FMRI scientist Paul Barbara documented a Mutton snapper spawning aggregation observed off Marathon, in the Middle Keys, during the full moons in April, May, and June).
- Instead of establishing a no take zone at Western Dry Rocks, NOAA should implement a reduced bag limit during spawn that would solve the problem throughout the keys.
- Increase no take zones to include all reefs, spawning grounds and fish hatcheries.
- Close migrating spawning routes during spawning.
- The sanctuary should coordinate with Dry Tortugas National Park (DTNP) in protecting a currently unprotected corridor between the FKNMS and the Tortugas South Ecological Reserve that may be traversed by mutton snapper during spawning aggregations (as noted in DTNP Research Natural Area 5-Year Report). Consider protection at least in the form of temporal closures based on spawning migrations, and at best expanding either FKNMS or DTNP to include this corridor and close it to fishing.
- Eliminate mutton snapper fishing during their spawning season as a method to give the fish a chance to reproduce and keep our resources plentiful.
- The plan by Mr. DeMaria to close the western dry rocks area to fishing as an MPA is problematic because: it presents a conflict of interest as Mr. DeMaria has had aquaculture leases in this area in the past; it is not the only spawn location in this area; this area should not be closed permanently

since it only supports spawning during a few months of the year; this would force users to other aggregation areas and the same problem would continue at other locations.

- NOAA should not ignore the effects of power-chumming: despite where you put the boundary, by power-chumming at the right times fish will leave the MPA as spawning fish are hungry and go where the food is (e.g., Riley's Hump acoustic tracking studies show that the spawning fish leave the hump and travel to other areas to feed when the full moon wanes).
- "Protect spawning aggregations"
- "Like to see accountability measures, specifically NMFS. What are we accomplishing with the closed areas? You take it away and don't give anything back (example: Western Sambo Reserve). What are we getting out of the closure? Deep water closure areas like Riley's Hump shuts down everything to make up for enforcement of a specific crime. Shut down bottom dwelling species not pelagic."
- NOAA should work with the South Atlantic Council now to develop a mutton snapper spawning reserve at the aggregation site SW of Western Dry Rocks off Key West. The reserve should prohibit bottom fishing in a relatively small 2X3 mile section of the bottom encompassing this area. Despite overwhelming testimony and support from the general fishing public, in the past NOAA and the SAC failed to come up with an adequate plan for this site that attracts many different species at different times of the year (e.g., permit, black grouper, and gray snapper).
- "Object to complete closure of any area when a reduced bag limit would be an effective measure to protect that species from overfishing as opposed to a complete closure which has a very negative effect on the users. Puts them out of business. (Example: Western Dry Rocks and the editorial explaining Don DeMaria's proposal of a 2 to 3 mile area of closure for mutton snapper)."
- "Stronger restriction during the mutton snapper spawning season."
- Close down spawning aggregation grounds for groupers and snappers during the spawning seasons.
- "No fishing during the spawning months for Mutton Snappers."
- "No fishing for spawning aggregations."
- "Tie the closure of spawning aggregations to actual timing of spawn."
- "More research on spawning aggregations and expand protection of spawning aggregations."
- Boca Chica area opened to catch and release fishing W.S.E.R.
- Temporal closure April-July for mutton snapper (during spawning). Example area- Western Dry Rocks.
- No commercial sales of mutton snapper during the spawning season, or any regulated fish during their spawning season.
- Establish protection for nursery areas and use fishing guides to help designate those zones.
- If new SPAs are created, sustainable fishing should still be allowed within them. Fishing that does not impact the bottom habitat should still be allowed.
- Ecological reserves should encompass spawning aggregations and other habitat critical for recreationally and commercially valuable fish and shellfish if at all possible. Any spawning aggregations not protected in ecological reserves should be protected either spatially (via permanent protective zoning) or temporally (via seasonal closure).
- Expand the boundary at Carysfort SPA to capture known spawning aggregation sites.
- Temporal closures should be studied to a much further extent before being approved.
- "Where possible restrictive zoning should be made temporal to have the greatest positive effect on the resource while the least negative impact on the user groups."
- "No temporal closures, the sanctuary needs to allow fisheries management to regulate fisheries, they have public participation and input, something this circumvents, removing the public's and users' rights to the resource."
- Consider having temporal marine zones to reduce stress on the reefs from concentrated human activities. For example, close Rock Key SPA from all activities for two years, while keeping Eastern Dry Rocks SPA open. After the two years, reopen Rock Key SPA and close down Eastern Dry Rocks SPA from any human activities.... or something like that. The temporal scale can be seasonal and/or conditional.

- Permanent area closures transfers the effort to other areas (closures don't accomplish purpose).  
Temporal closures better.

## **New or Modified Sanctuary Preservation Areas and Ecological Reserves**

### Issues:

- There is a lack of need studies on the number of bonefish, tarpon, and permits recruited within near shore waters of Boca Chica Beach area, which is of the Sambo Ecological Reserve. There is no base line to go off of because there are not studies done, which have been asked for many years.
- Need for carrying capacity studies for SPAs and other zones that people use. Are we putting strain on areas due to the concentration of users?
- When looking at the science of SPA areas versus non-SPA areas, there seems to be no significant difference in fish abundance; this protection doesn't actually seem to benefit the area to which it is applied. From these studies, one cannot conclude that SPAs are "doing their job" in protection. There needs to be studies that look at all reef species, not just apex predators and commercially important species. Needs to be unbiased studies that are not conclusion based. There seems to be a pre-determined conclusion with current studies that SPA's are working, the data says otherwise.
- Don't create more SPAs in places like Looe or Sombrero because the impacts are greater inside SPAs compared to outside SPAs.
- SPAs appear to have no positive effects on coral preservation.
- Significant areas of seagrass and coral reef essential habitat (e.g., nursery grounds for shrimp, spiny lobsters, corals, reef fish, and other commercially and economically important species) are protected by current special protection zones and ecological reserves. If protection zone and reserve boundaries are either eliminated or modified to reduce protected areas, significant natural resources would be put at risk.
- If the introduction or inclusion of catch and release fishing would result in obvious user conflict, it has no place (ex Looe Key SPA).

### Suggested Strategies and Tools:

- NOAA and USFWS should revisit and modify as needed the present SPA boundaries.
- FKNMS should not implement any new large ecological reserves.
- NOAA must greatly expand and connect the sanctuary marine zones, especially North and South Tortugas, and ideally should design the sanctuary on the same model President Bush used for Hawaii when he left office.
- By marking SPA's it has increased the diving and snorkeling activities and done more harm to the corals than good. Some of these heavily coral covered areas may need to be no use areas.
- Considering extending the boundary of Western Sambo ER to cover outlier reef that is heavily used by some grouper and spiny lobster, especially spawning females; while females bearing eggs are protected and therefore in theory can be outside of the WSER boundary without harm, extending the reserve may help to protect critical habitat from damage from traps and fishing impacts.
- WSER is a frequent victim of poaching inshore due to people not understanding the boundaries, which are unique in the zoning scheme as they extend to land. Since there has been hesitation to put yellow buoys closer into shore due to high boat traffic volume, consider a marking system (which commenter saw in another country) of yellow poles on land (several meters high and able to be seen from a fair distance) in line with the yellow buoys on the water to demarcate that this zone extends to land.
- Add 2 mooring buoys inshore at WSER.
- "Open Western Sambo Ecological Preserve to catch and release fishing"
- Open the northern half of W.S.E.R. opened harvest
- If WSER is doing its job keep it, if it has done its job the open it up to traditional uses and impose the same set of rules to another location up the Keys and then that area may be improved. If it is not doing its job, then do not increase its size or create more ERs, SPAs, WMAs or whatever because more is not always better.



- While the lionfish removal permit program is of great benefit to the popular reefs where the majority of the trained permitted operators are working (e.g., SPA's like Sand, Rock, Eastern Dry Rocks, Looe and others on up the line), no one is doing anything about removing lionfish from the WSER. The public has embraced removal of Lionfish as bycatch when they are out lobstering and spearfishing, so many are removed from other Hawk channel patch reefs, but the patch reefs in the ER do not benefit from any removal and are in a sense protected by sanctuary regulations. To address this allow sanctuary staff to spear/remove Lionfish in the WSER either during Team OCEAN outings or while on their own time and personal vessels.
- Expand the ocean ward boundary of Western Sambo ER based on results of lobster and grouper tracking and migratory use of deep water areas.
- NOAA should consider setting aside some of the original SPA areas for no use (possibly as restoration zones) because making the biggest, nicest, most heavily coral covered areas SPAs (to reduce user conflict) has increased their use, caused harm to the corals and divers have degraded them.
- "Establish additional Ecological Reserves that limit consumptive activities while continuing to allow activities that do not threaten resource protection"
- "Include all areas outlined by National Marine Fisheries to exclude trap fishery to protect endangered corals as SPA's and/or incorporate with existing SPA's when possible. ...Review all current SPA areas to determine proper size and effectiveness and expand to provide better resource protection."
- "Identify and set aside ecological restoration areas currently in use to re-populate coral and /or include in established SPA's."
- "Like to see accountability measures, specifically NMFS. What are we accomplishing with the closed areas? You take it away and don't give anything back (example: Western Sambo Reserve). What are we getting out of the closure? Deep water closure areas like Riley's Hump shuts down everything to make up for enforcement of a specific crime. Shut down bottom dwelling species not pelagic."
- "Like to see a mooring buoy at Boca Chica Rocks (near shore patch reef inside Western Sambo Reserve)"
- "Have time restriction on any closures. Revisit the status every 5 years. Western Sambo ER should be reopened for catch and release fishing."
- If SPA's are going to be closed to consumptive uses, the sanctuary should not permit fishing activities (i.e., bait fishing) within them.
- Eliminate rule exceptions for trolling and baitfishing in SPAs:
  - these compromises do not add anything to the ability of charter or recreational fishermen to make a living or catch fish;
  - they confuse the general public as to what is and what is not allowed in these zones (e.g., people think these fishermen are blatantly ignoring the rules and so it is OK to fish in these areas);
  - this sets up fishermen to be tempted to abuse this privilege (e.g., commenter has observed charter fishing boats who seem to be responsibly trolling around the outskirts of the SPAs catch a large fish and "put it in the box" instead of releasing it - it is probably hard to tell a customer they cannot keep a big fish);
  - This creates a safety issue and defeats the purpose of the zones to eliminate user conflict and separate user groups (i.e., commenter has observed fishermen troll through areas where people are diving and snorkeling).
- "Fishing in SPA's, catch and release and bait fishing should be eliminated in the zones so regs. in zones are consistent."
- Open SPAs to bait fishing castnet and sabaki
- Allow Sabiki or Airhook fishing rigs in SPA's where they are legally allowed to catch bait via cast nets. Sabiki/Airhooks provide healthier bait and you're able to target amount wanted. There's too much mortality with a cast nets.

- I oppose any permitting to enter SPAs. It will drive away tourism. Lionfish taking needs to be open to pole-spear fishing for the lionfish permit program in SPAs. I see the majority of lionfish in SPAs. Allow this for responsible operators that have the skills and knowledge of the area.
- I would like to see all rezoning decisions based upon scientific fact. The proposal for Snapper Ledge to become a SPA is not based on science. This area is so special it should be a research natural area only.
- There is no indication that fishing pressure (minimal) at Snapper Ledge has had any deleterious or long term affects on the area. Emotional responses to the killing of a shark, that could have happened anywhere, are not sufficient reason to deny public access to a portion of the sanctuary for legitimate recreational pursuits.
- The Newfound Harbor SPA needs to be expanded to include all of the patch reefs that are in a line in on the oceanside Big Munson Island/Newfound Harbor Keys. These patch reefs are in need of protection and should be included in the SPA.
- Make Looe Key an ecological reserve
- Ecological reserves should be established in sub regions of the Keys that don't yet have them (i.e. Marquesas, Middle and Upper Keys). They should be located with connectivity between reserves and other Sanctuary and regional resources in mind.
- Burke et al. proposed a Sanctuary Preservation Area to protect the shallow banks north of the middle Keys. No Motor, Pole and Troll Only or Idle Speed Zones could accomplish the shallow habitat protection needed for these areas.
- Ecological reserves should encompass spawning aggregations and other habitat critical for recreationally and commercially valuable fish and shellfish if at all possible. Any spawning aggregations not protected in ecological reserves should be protected either spatially (via permanent protective zoning) or temporally (via seasonal closure).
- Regulate Horseshoe Reef as a SPA because it draws lots of critters and has some of the most amazing diversity and healthy coral resources in the Upper Keys (including amazing and diverse fish assemblages), perhaps a close second to Looe down south.
- SPA's are doing well with the current lionfish process, but the sanctuary should address lionfish removal in research only and ecological reserve areas.
- "Do not want all good fishing areas turned into spas. But would like to see extra mooring balls to protect the resource but not at a risk of turning it into a no take area as well as additional funding to maintain the moorings."
- The Carysfort SPA is too large.
- Expand the boundary at Carysfort SPA to capture known spawning aggregation sites.
- Review boundaries for the proposed Carysfort ER in the draft management plan based on current science to determine if a new ER should be formed in the Upper Keys to protect shoreline to reef habitats.
- Eliminate catch and release fishing activity in the four SPAs that currently allow it. Per comments submitted during the 5 year management plan review process, this would address SAC concerns about allowing a consumptive activity in otherwise fully-protected areas, which may be incompatible with the primary objective of resource protection in those areas and may have tangible benefits for protecting resources within the sanctuary.
- Create a new SPA at White Banks Dry Rocks.
- Include within the Tortugas North ER boundaries the area just outside of the western edge of the reserve, along Lat. 83 deg 06.00', called Graham's Wall (incredible steep-wall habitat that drops from 80 to 140'). It appears that a lack of information on the area at the time of the T2000 process kept it from being included in the boundary drafting (per Steve Baumgartner and Billy Causey, as noted during the November, 2009 review of sanctuary regulations).
- Provide increased enforcement / vigilance on the nightshift in SPAS, and also focusing on protected areas.
- Consider having temporal marine zones to reduce stress on the reefs from concentrated human activities. For example, close Rock Key SPA from all activities for two years, while keeping Eastern Dry Rocks SPA open. After the two years, reopen Rock Key SPA and close down Eastern

- Dry Rocks SPA from any human activities.... or something like that. The temporal scale can be seasonal and/or conditional.
- NOAA should re-evaluate the existing SPA zones in terms of human interaction, water quality, and invasive species. In particular, determine why Looe Key is in worse shape now than when it was designated a SPA. The Dry Tortugas Research Natural Area is rebounding from less human interaction and better water quality (5 year report Dry Tortugas National Park).

## Seagrass Protection

### Issues:

- [note: see also “Administration/Aids to Navigation” ]
- Critically sensitive areas need to be clearly marked and posted, and continually maintained.
- "[Refuge managed] areas need to be monitored and changed/revised frequently. I would say at least every two years."
- NOAA and USFWS need to improve diver and boater education to reduce physical impacts on coral reef areas and sea grass habitats.
- "Better protection of areas that are at higher risk (e.g. certain area of coral reef)."
- People at Boca Grande do not know regulations. Signs are misleading. If you can't enforce the rules, you have to sign it.
- More education is needed-reckless behavior is destroying coral and scarring seagrass beds.
- There is a need for better channel marking, especially in and around Vaca Cut. People see the open ocean, go for it and then run aground.
- The operation of PWCs may destroy vegetation such as sea grasses that are delicate nursery grounds where many of the fish in our waters originate. Sea grasses are essential to the ecosystem because they control erosion and provide a nursery ground for small animals vital to the food chain, such as crustaceans, mollusks, and small fish.
- NOAA is still using 1995 data on the extent of Keys boating impacts to shallow water habitat almost 20 years later.
- Address Party Zones throughout the Keys (similar issues as to what is happening in Rodriguez and Tavernier Key (where there are enforcement issues, and the rules do not address problems from large numbers of people anchoring, trampling the resources, and littering).
- Do not change regulations to limit the ability of boaters to congregate at certain “party” areas (e.g., traditional Lower Keys spots like Snipes, Marvin, Boca Grande, Picnic, etc.), which are used primarily due to their large sand bars or beaches, because this will create more problems than it solves:
  - most anchoring is done in sand, which is promoted as responsible boating;
  - any habitat damage is limited to a relatively small area;
  - •to disperse these crowds is to encourage them to find new spots and potentially damage new areas or congregate in areas that may actually have seagrass or other resources on the bottom;
  - • dispersing these crowds may force people to find areas which are inaccessible to enforcement, further increasing the chance of habitat damage in shallow areas or harassment of birds and other wildlife in areas not used to boating activity;
  - with the lack of enforcement of rules and regulations already on the books, this would likely be another rule which is ignored and people will still go there;
  - If it is legal to anchor in sand near a mangrove island, how can you limit the number of boats at a particular island?
- Restricting vessel congregations (a.k.a. party zones) currently being used will force vessels to disperse, creating new areas and causing far more damage. The current areas are sand and have minimal resource impact.

### Suggested Strategies and Tools:

- Updated Keys propeller scarring maps should be a priority input to shallow seagrass meadow zoning deliberations.
- Update mapping of boating impacts to Keys' seagrasses using the same methods used by the state in the mid-1990s, both to obtain data on trends and identify areas still in need of better management.
- Further protect and restore shallow water and nearshore habitats to increase their resiliency in light of climate change, sea level rise and future unknowns.
- Prop scarring is the most prevalent form of human interaction and destruction.

- Increase mangrove and seagrass habitat restoration following a review and identification of locations, methods, options, possibilities, partners, and funding sources.
- In the Gulf of Mexico our experience has been healthier and more abundant levels of seagrasses following the scouring action of Hurricane Wilma in that area in 2005. Education is the key here and ENP has been aggressive in that regard with the Eco-Mariner Program and suggestions of instituting boat licensing or operating permits for certain areas of the park. A similar action could be considered for the FKNMS as a whole and possibly made available on the internet.
- NOAA and USFWS should establish pole troll only zones around many grass flats, and develop strict regulations to protect shallow grass flats from physical damage.
- NOAA and USFWS should stop the 52' Corinthian boat that caters to cruise ships in winter from running that boat in the Key West Wildlife Refuge for kayak tours around Archer Key as: they are not responsible vendors, their boat is too deep draft when fully loaded at low tide, and the worst prop scars located on the west side of Mule Key Gates are from this vessel.
- Flats inside the FKNMS should be marked better to avoid running aground and prop scars.
- NOAA and USFWS must establish significant areas to protect sea grasses, and should limit boat traffic in seagrass areas.
- "Better channel markings and no wake/minimum wake areas in the bay"
- "Provide better aids to navigation around critical habitat"
- "Partying on sandbars needs to be limited to areas where it is happening now so that it doesn't spread to other areas and negatively impact the environment."
- "Perhaps marked areas over sand inside the reef for people to party at would take pressure off of some of the mooring reef balls and the habitat below it."
- "There needs to be better marking of the flats in the FKNMS and ideally the markers should be lit. The biggest threat to the bank systems are water quality and prop scaring. By properly marking the banks and educating the visitors you could dramatically reduce the prop scaring impacts to the banks."
- No additional channel marking outside of what currently exists should be permitted in the Lower Florida Keys north of US 1, and management plans should be revised to incorporate this philosophy, because: marking backcountry channels will increase the number and size of vessels using the backcountry, and also encourage those unfamiliar with the hazards of shallow-water navigation into sensitive areas; perceived benefits such as improved navigation and safety are far outweighed by disadvantages.
- "Identify social boating areas and establishing zoning scheme to contain and control while still allowing current activities in identified scarified areas."
- Place "hitching posts" below the mean high tide line for boats at Boca Grande (like mooring buoys) to avoid anchor damage on the beach/dunes.
- Commenter is concerned that creating places for boats to hitch/anchor would attract more boaters.
- Prevent people from throwing anchors onto the beach or tying up to sign posts at Boca Grande through beach protection regulations, and consider placing mooring buoys in the water so boaters anchor in water and wade in.
- "Like to see ecosystem scale restoration more of a prominent activity. Not just injury restoration (example: seagrass and coral groundings)."
- "Ban on airboats lifted because they don't damage seagrass."
- "Would like to see jet skis and jet boats allowed to go out to Boca Grande Key and Snipe Key. Less restrictions."
- "I am supporting closed areas with moorings as an alternative to anchoring and having seen the benefits of existing closed areas like Western Sambo where it goes from shore to the reef, covering all habitats, I support existing closed areas."
- "Stricter LE for vessel groundings."
- "Clearly mark shallow waterways. Better navigational markers around, for example, Contents keys."
- "There should be some protection of shallow water habitat from fishing."

- "Encourage maintenance of and proper marking/signage of safe boating channels, since they are not currently adequately marked."
- "Mandatory and meaningful navigation training before people rent private boats. Training would protect seagrass flats and other resources. Have train-the-trainers and require certification of boat rental staff. "
- "Expand (make longer) the no wake zones."
- How many PWC have been towed out of seagrass flats and off the reef?
- Maintain and enforce current regulations on anchoring and sea grass impacts. Do not expand regulations.
- Restrict access to grass flats that have become party zones, e.g. Rodriguez Key, Tavernier key, like no anchoring, no volleyball, to prevent habitat destruction.
- Restrain sandbar parties spots to traditional locations like, snipes point, whale harbor.
- All the shallow water channels throughout the Keys need to be marked well with flashers.
- If a person is boating/fishing here in the Keys, they need to have mandatory GPS on their boat to improve navigation and reduce damage to the seafloor.
- Mark the Spanish Harbor bridge area in the vicinity of Big Mangrove Key better to protect the flats/shallows. There is a spit at the base of the key that people cut through on their way to Bahia Honda that is showing signs of boat damage and needs to be marked. It is currently not marked at all.
- NOAA should address, along with barge spudding, injury to seagrass beds caused by construction vessel anchor chains while the vessels are anchored for extended periods of time; although doing so will be difficult because of the anchoring rule and residential live aboard issues.
- Improve shoal marking to increase avoidance by boats at multiple places since shoals get hit a lot so (e.g., Garrison Bight).
- Improve shallow bank marking as these unique resources get hit a lot by boaters because they are not marked well (and don't get caught for hitting the banks), and this destroys these sensitive habitats (e.g., Red Bay Banks, John Sawyer Bank, Knights Key Bank, Old Sweat Bank, Jewfish Bush Bank).
- NOAA and USFWS should not consider a larger area for PWC because: the agencies are not able to enforce what they have now; PWC disrupt wildlife and sport fishing; PWC frequently violate areas where they are not permitted. Google earth aerial views of Boca Grande are heart breaking.
- Comments have been made that possible closures to areas such as Snipes Point and Mudd Keys will be part of the upcoming regulations. Further restricting access to such areas is a matter that will directly affect area residents who live in and have to transit through the sanctuary by boat. NOAA should document and provide for review exactly what changes to current rules it is proposing.
- NOAA and USFWS should keep sandbars open to boaters, such as at Boca Grande.
- NOAA and USFWS should not close Marvin Key to boaters as it is enjoyed by many local residents and if it is closed, a new spot will develop.
- NOAA should prohibit activities (sandbar anchorage) that are destroying submerged resources in the Rodriguez Key Wildlife Management Area, and should consider a no-anchor zone, and expanding the no-motor zone.

### **No-Access / No Motor / Buffer Zones**

- Review examples of formal pole and troll res and no-motor zones from around the Keys, the state and the Gulf to determine what works to protect resources, and what doesn't.
- Use alternatives to shutting down areas around islands. No motors, no landings, idle speed, etc. No landings above mean high water.
- Be consistent with marking (e.g. buoy color), regulations and zoning – 300 ft 'No Access' buffer around specified islands that need such protection.
- Open all of Woman Key with a "no motor" zone because of its shallow flats.
- Use No Access Zones for critical bird rookeries and No Motor Zones to protect bottom habitat.

- "No Access" areas may be better than "No Motor" areas because boats still coast or poll and troll into "No Motor" areas and flush birds (the same impact as with motor). Kayakers can also get too close and flush birds.
- Open all of Woman Key with a "no motor" zone because of its shallow flats.
- Create a new "No Access" buffer around Little Pine Mangrove Key because it hosts frigatebird roost, nesting reddish egrets, tri-colored and great white herons, and it needs additional protection.
- Create a new "No Access" buffer around Crane Key - although it will be hard to mark with buoys. [commenter provided map]
- Identify places that need buffers and make buffer size consistent across the refuge so that people know they always need to be XX# feet away.
- Establish a 300 ft buffer around refuge islands to balance wildlife protection and wildlife-dependent recreation: this is sufficient to minimize disturbance to nesting and roosting birds, while promoting wildlife-based activities as birds are not flushed away and every birdwatcher can view from this distance.
- Do research to determine optimal buffer zone size.
- Create a "no access" zone marked with buoys around the unnamed little island (aka North Budd Key?) north of Cudjoe Key, except leave the narrow shallow channel (once part of the now defunct Intracoastal Waterway in GWHNWR) at the North end of the island open, because:
  - Frigatebird roost (~250 birds) here in April-Oct, nesting reddish egrets and white ibis peak in winter;
  - Human disturbance has been documented here twice this summer (jet skis, fisherman). [Commenter provided map]
- Create a "no access" buffer around the unnamed island near Torch Key Mangroves between Raccoon and Big Torch Keys because it is a huge frigatebird roost, and there is also great white heron activity there. [commenter provided map]
- Designate Demolition Key as a WMA and create a "no access" buffer on the flats side of it because it is an important island that includes great white heron nests and frigatebirds, and commenter is concerned about disturbance by PWC. [commenter provided map]
- Change the three "No Motor" buffers at Rookery Keys, in the Marquesas to "No Access" because:
  - this is the last place that the frigatebirds nested in the Key West NWR with current and long-term frigatebird roost (>100 birds);
  - this is a problematic area – boats passing by are not the problem;
  - Boats (e.g. flats fishermen) that approach close and stay close to the island can cause disturbance.
- Protect East Bahia Honda, Cocconut, and Teakettle Keys as a white-crowned pigeon nesting unit with a closed area/no access area in a 300 ft buffer around each island because the majority of white-crowned pigeons nesting in the Florida Keys are on these 3 islands. [commenter provided map]
- Close East Bahia Honda, Cocconut, and Teakettle Keys only during the white-crowned pigeon nesting season (a critical time for protection), which is May-September.
- Create a closed area or "No Motor" zone at East Bahia Honda Key, and discourage all Commercial Kayak Tours from visiting this area because:
  - it has hosted the largest white-crowned pigeon nesting colony in GWHNWR for 13 consecutive years, and the largest colony in the entire refuge from 2006-2011;
  - Human disturbance has not been observed here yet (remote site), but the peak of nesting overlaps with lobster mini season and the island should be protected before public use expands.
- Maintain Cottrell Key as a closed area because:
  - 1992 Plan said "no access" but it has been enforced as "no motor";
  - it hosts the only pelican nesting colony in KWNWR;
  - Kayak tours have increased in recent years and disturbed nesting brown pelicans, resulting in heat-stressed nestlings and nest abandonment.
- Many (too many?) buoys would be required to effectively mark Cottrell Key as a closed area.

- Maintain current "no access" zoning and current regulations at Little Mullet and Big Mullet Keys to proactively protect it before public use increases. Poll and troll (approaching and staying close to islands) are the biggest impacts in this area; kayaks don't appear to be using this area yet.
- "Horseshoe Key – Delete? 1992 Plan identified as 'no access' but given Jet Ski prohibition throughout refuge, such a buffer is not needed. But if Jet Ski prohibition is removed, then keep 'no access' buffer as is."
- "Marvin Key – Delete? Hurricane Georges damaged/alterd the flat so no longer important area for wildlife (wading birds). Also originally meant to reduce impacts of jet skis, but given jet ski prohibition throughout refuge, such a buffer is not needed. No longer a wildlife issue, but possibly public use conflict issue...."
- Change the "no motor" zone to a "no access" 300 ft buffer at Bay Keys to be consistent with other protective island buffers.
- Mark coral restoration zones as "no entry".
- Eliminate no motor zones. Commercial charter captains and fisherman use these areas for baitfishing and they need to be motoring across with engines up, it would be impossible for it to be feasible for them to pole.
- Improve signage for shallow water channels, and for no motor, no entry areas.
- Content keys, Moser channel should have idle speed in sensitive areas.
- Consider creating No Motor/Pole and Troll Only Zones and Idle Speed Zones in areas of high seagrass scarring and/or where there is conflict between flats fishers, who require calm, quiet and healthy benthic conditions, and other boaters.
- Increase Pole and Troll Only and idle speed zones for protection of habitat and wildlife. We fully support limiting access by personal watercraft and other vessels to the Backcountry areas in Great White Heron and Key Deer National Wildlife Refuge. Not only should nesting and fish habitat be given this extra protection, but it should be extended to specific areas that already suffer from high seagrass scarring. If this limited access could be extended within borders of Everglades National Park, we would support that as well.
- Consider having an idle speed zone only for all motorized vessels within 100 yards of all shorelines, whether they are residential or not:
  - natural shorelines with mangrove forests, sandy beaches, etc. are habitats for wildlife, especially nesting birds and sea turtles;
  - keeping boats at an idle speed/no wake will reduce noise pollution and disturbance associated with vessel operation;
  - could involve modifying the existing rule prohibiting operating on a plane within 100 yards of residential shorelines (why should people be protected from noise pollution, but not wildlife?);
  - also apply this to kite boarders, who operate at pretty fast speeds in very shallow water along the shore, and inadvertently chase terns, pelicans and gulls back and forth on the beach.
- "No entry areas should be re-marked in back country."

### **Pole Troll**

- "Pole-troll-areas"
- "Pole and troll in sensitive areas to preserve seagrass and marine life within."
- "Consider poll and troll areas outlined by local guides associations and for shallow bank areas in back country."
- "Pole and troll in sensitive areas to preserve seagrass and marine life within."
- Establish pole-and-troll zones with lanes/channels for access.
- Have some zones for pole-and-troll only.
- More pole and troll zones in the Sanctuary, especially near Key West, at least idle speed, especially around bird rookeries.
- Pole and troll makes fishing difficulties. Be careful about creating more such zones.



- Consider creating No Motor/Pole and Troll Only Zones and Idle Speed Zones in areas of high seagrass scarring and/or where there is conflict between flats fishers, who require calm, quiet and healthy benthic conditions, and other boaters.
- Increase Pole and Troll Only and idle speed zones for protection of habitat and wildlife. We fully support limiting access by personal watercraft and other vessels to the Backcountry areas in Great White Heron and Key Deer National Wildlife Refuge. Not only should nesting and fish habitat be given this extra protection, but it should be extended to specific areas that already suffer from high seagrass scarring. If this limited access could be extended within borders of Everglades National Park, we would support that as well.
- Additional “idle speed” and “pole and troll” zones are needed in shallow seagrass areas for resource protection.

### **Wildlife Management Areas (WMAs)**

- NOAA should address the following issues with respect to WMA’s:
  - Are current WMA’s still appropriate?
  - Are new WMA’s needed?
  - Consider adaptive management that would allow for timely regulatory changes, as wildlife and habitat that WMA’s seek to protect are highly dynamic.
  - Replace missing buoys in a more timely manner.
  - Consider implementing a "no anchoring" and/or "must remain in vessel" policy to eliminate the growing "social gathering" problem within some shallow water WMAs (i.e., Tavernier Key and Rodriguez Key).
  - Lack of enforcement of the non-combustion rule in natural channels within non-combustion WMA’s (e.g., in the east and south sides of Cotton Key combustion motors are now allowed to be operated through these channels when this used to be enforced as non-combustion - this entire network of channels is within the WMA and used to be, but no longer is an extremely productive bonefish flat).
  - Consider managing all WMA’s as "non-extractive" zones.
- WMA’s should be more flexible and moveable to reflect wildlife migrations or movements and habitat use or non-use over time. Need increased monitoring to see if they are fulfilling their intended purpose.
- The need to be able to modify or add new WMAs as applicable so these areas could best serve their function as vital wildlife habitat in the constantly changing shallow water areas of the Keys was noted in 2003 (article in Saltwater Fly Fishing magazine), yet ten years later we are still waiting for this to happen. Meanwhile, new wildlife threats have arisen and current WMAs have changed dramatically.
- Address problems with the current no combustion engine rule to prevent damage at Rodriguez and Tavernier WMAs: there are enforcement issues; and the rule not does address problems from large numbers of people anchoring, trampling the resources, and littering.
- Consider WMAs in Card Sound Aquatic Preserve along the shoreline (specifically the southern base of card sound bridge):
  - heavy boating traffic could be impacting bird nesting and roosting;
  - This area became popular several years ago when jet skis were prohibited from Biscayne National Park, and has remained extremely used over the years.
- Consider establishing WMAs to protect shallow bank systems (Channel bank, Moser bank and bamboo bank systems) in the middle keys on the Gulf side because NOAA Fisheries scientists, John Burke and other scientists have studied them in recent years and recommended more protection for a number of reasons:
  - they have been likened to coral reefs in that they support many of the same fish in different life stages (as they grow large and move from the bay to the reef);
  - channels associated with them are important too;
  - they are well defined for experienced boaters, but in high water can be harder to see and have suffered boating impacts;

- They can be impacted by fishing gear during storms, etc.
- Over 15 years ago commenter worked with the Marathon Guides Association to set up two new WMAs in the Marathon area in places in severe need of resource protection, with the support of offshore charter-boat captains who depended on catching bait in these areas. Despite getting approval from Monroe County, the City of Marathon and the City of Key Colony Beach for these two WMAs, they have yet to be implemented. Since proposing them there have been dramatic declines in usage of these flats game fish due to boat traffic, which has only increased as the years have gone by. Similarly, the Lower Keys Guides Association raised concerns about jet skis within the Boca Chica Beach area in one of the ERs, but has been waiting ten years for management changes for this area. Also, the charter dive industry brought up the idea of resource protection for Snapper Ledge years ago after observation that it was The sanctuary needs more tools to address issues such as this quickly, and not have a one size fits all system for all sanctuaries that may work in one, but not another.
- The two Marathon Guides Association proposed WMAs suggested about 15 years ago were developed with a lot of footwork, workshops and user input, and reflect a compromise that would make the areas idle speed areas so offshore fishermen can access the areas in question to catch bait for fishing charters, while this would still stop high speed runs across the shallow water. They included the grass notch bank that opens into Vaca Cut Channel off of Marathon and Key Colony Beach – this area is a choke point area used by many commercial boats as well as party fishing boats, and recreational boats and is a spot waiting for an accident to happen as boats make the turn into the channel and enter through that gap at high speeds, turning by boats using the channel. All access channels through the area are marked and should be allowed to be used in this area. The area of the flat off the Boot Key Channel should also be included in this WMA. [Commenter provided maps with coordinates and additional specs. for the two proposed WMAs.]
- Include Wilma Key (if still closed/regulated by USFWS) in sanctuary regulations as a WMA.
- There is a pressing need to address threats and impacts to WMAs in a more timely and efficient manner than how we are addressing them under current guidelines and regulations.
- Update Wildlife Management Areas to account for changes in bird nesting/roosting areas since establishment. Make them more flexible because wildlife comes and goes. New sandbars/islands (e.g. Bruce Key/Wilma Key near Boca Grande Key) should be automatically closed to human use by USFWS when they appear because they are precisely what some birds need for resting and breeding.
- Enhance enforcement on commercial use in the backcountry, specifically the wildlife management areas. Do not dissolve the existing wildlife management areas.
- Need of a wildlife management area to be set up off the old sea plane base. Refer to input from the Lower Keys Guides Association.
- Designate Demolition Key as a WMA and create a "no access" buffer on the flats side of it because it is an important island that includes great white heron nests and frigatebirds, and commenter is concerned about disturbance by PWC. [commenter provided map]
- NOAA and USFWS should establish Wildlife Management Areas from the Middle Keys throughout all the Keys to the Key West area, with input from local fishing guides, fishermen and others, through public workshops or working groups for their knowledge and use of areas.
- Open a beach area such as Woman Key or one of the other non-sensitive islands to the high water mark for commercial and public use like they do in St Croix (Buck Island) to give visitors the chance to responsibly use/experience and learn about our resources through guided tours onto the beaches of the outer islands. They are just as much a resource for visitors as for locals to use.

## Submerged Cultural Resources

### Issues:

- These resources are often cited by currently-certified divers as the rationale for initially learning to dive. Divers can acquire “wreck diver” and “research diver” certifications during which they are provided with information by professional diving instructors pertaining to protecting and safely diving on, ships and other man-made, submerged resources.
- According to the Advisory Council on Historic Preservation numerous studies indicate that “heritage tourists” stay longer and spend more than other tourists. According to these studies, a majority of U.S. adult travelers (56% or about 84 million adults) include an historic activity or event on their trip and spend 36% more than those not including such historic site visits as part of travel.
- Similar to protection of natural aquatic and marine resources, sustainable interaction with submerged cultural resources is a chief need for the Recreational Diving Industry in many areas.

### Suggested Strategies and Tools:

- Prohibit use of metal detecting, magnetometers and side scan sonar in sanctuary waters unless otherwise permitted:
  - to reduce stress from human activities, minimize conflicts and apply the best balance for conservation based management (in line with SAC recommended goals);
  - so this equipment is only used in sanctuary waters when the sanctuary is permitting it and fully aware it is being used;
  - To aid public understanding that artifact collecting is a violation of sanctuary regulation .163(a)(9) and bottom disturbance 922.163(a)(3).
- "Closing areas for no reason. Always telling people what they can't do. Take away half of restrictions there are too many. (Example: antiquities) Let people have fun. Let people pick up a bottle if they want."
- More programming for historic sites, education and development of dive/snorkel sites around shipwrecks.
- No take status for ship wrecks that are on the shipwreck trail, and artificial reefs.

## User Conflicts

### Suggested Strategies and Tools:

- Out of state/illegal guides need to be addressed. (illegal referring to non-residents, no occupational licenses)
- "Make sure there are regulated areas for all user groups. Don't close down all the areas that are already used by certain user groups."
- NOAA and USFWS should increase enforcement of moored vessels as they are creating a navigational and environmental hazard.
- Limited entry should be considered for all recreational users: boating, fishing, diving, and personal water craft.
- NOAA should keep the lobster mini season because it gets numerous divers out of Keys waters before traps go in, eliminating some diver/trapper confrontations!
- NOAA should address the growing sport of kite boarding and its continued expansion within shallow water areas of the sanctuary because its conflicts with other user groups are increasing, especially flats fisherman.
- Most damage to the Channel Keys Banks System is from lobster sport diving season when the divers destroy more bottom than anything. NOAA should make the Channel Keys Banks System a pole and troll zone.
- More law enforcement of anchoring in navigable channels
- Fishermen should stay out of navigable channels by a certain distance especially when anchoring.
- Make or create a law against anchoring in navigable channels.
- All anchored vessels, pole pushing vessels, and fishing vessels should be 200 yards clear from navigable channels.
- "Address anchored vessels in channels as they obstruct navigation. Keep channels clear for navigational/transit use. "
- "Restrict anchoring in the channels. (Example: Main ship channel by Fort Zach). Boats anchor in the middle of the channel, fishing, and it's difficult to get around them, relative to jet skis and other boats."
- Any vessels anchoring in working channels are detrimental to safe navigation and need to be addressed.
- Work with electronic chart manufacturers to make channels a "no anchor" zone, since vessels anchored in channels pose a navigation hazard.
- NOAA should increase presence of LE officers in sanctuary nearshore waters and increase fines for violations of the sanctuary regulation requiring idle speed no wake within 100 yards of residential shoreline and within 100 yards of stationary vessels (922.163(a)(5)(iii)):
  - as there is a lack of enforcement and daily violations;
  - since in areas where homeowners and FKNMS marked the 100-yard boundary with spar buoys the idle speed regulation is still broken;
  - as there are minimal repercussions for this violation that is one of the more visible and personal violations that residents witness;
  - To improve the protection of resources and faith in the sanctuary's interest in nearshore resources.
- "Banning of any vessels needs to be made using scientific evidence supporting the ban."
- "No more closures for fishing. Close some reefs to dive boats to allow fishing (e.g., 90' Toppino, Western Dry Rocks)."
- "Closures between fishing and diving should be supported by the scientific data. You need to control for diving pressure well as fishing pressure."
- "Want fairness in protection of resources. Fishing concerns have not been accommodated to the same degree as diving/snorkeling interests, particularly on reefs."
- "There needs to be a better mechanism for fishing interests to be reflected in the regulations, and there should be reefs exclusively for fishing and not for diving."
- "Diving pressure on "fishing" reefs needs to be accounted for."

- "Fishing and diving and open areas should be exclusive to a single use."
- Make an exclusion zone around fishing vessels with lines in the water (example 200 yards).
- Expand or move Key West National Wildlife Refuge boundary west to encompass deeper water, for example the channel, so PWCs can enter that area.
- Consider creating No Motor/Pole and Troll Only Zones and Idle Speed Zones in areas of high seagrass scarring and/or where there is conflict between flats fishers, who require calm, quiet and healthy benthic conditions, and other boaters.
- Piney Point subdivision on Big Pine Key is more than 50% owned by Fish and Wildlife, and many other conservatory organizations and entities. The Fish and Wildlife parcel has become a de facto marina for small craft and dinghies landing at this site day and night, which bring strangers into the subdivision. Fish and Wildlife is unable to control these live aboard landings on their property and the live aboards use the closed portion of Richard Road as their access to the subdivision, parking their cars and bicycles on the County right of way (closed portion of Richard Road). For many years, the residents have objected to the live aboard boat landings on the Fish and Wildlife property. This parcel has become an "attractive nuisance" to waterfront homeowners, and it is designated "passive use" which means walking only – not dinghy landings. Despite residents going to the authorities many times there is confusion as to jurisdiction and authority and little action has been taken. New rules being discussed by the scoping committee should address this situation.
- NOAA should develop a plan to address barge spudding, especially in nearshore locations, that: addresses its impacts and cumulative affects; addresses the practice of leaving this equipment exposed and in place during storm events; includes partnering with companies/agencies practicing this mooring method, or aggressive enforcement. DOT work barges (e.g.) salvage operators and others use this as a means to anchor work barges overnight and throughout storm events (e.g., winter blows, hurricanes) throughout the Keys. They leave vessels unmanned for periods of time, sometimes along or under bridges, sometimes in unfavorable locations such as resource communities. Enforcement could include officer bridge stops to record offenders and issue warnings and violations.
- Commercial "hovercraft" and airboats are at odds with sanctuary and refuge ideals and should not be permitted to operate as "tour" boats - though use as emergency units would be okay. They have been used in Little Knockemdown Key, and in the upper Keys on Blackwater Sound.
- NOAA should determine whether there are any documented problems with ultralight seaplanes in the sanctuary (namely conflicts with wildlife such as birds), and if so, determine whether the conflicts are seasonal. If none, NOAA should consider creating an ultralight sea landing area for small (one and two-person craft only), between Marvin and Barracuda keys (per attached map). There are very few ultralight seaplanes in the Florida Keys alone, and only one or two are commercial and in the range of the aforementioned islands.
- NOAA should restrict the number of cruise ships.
- NOAA and USFWS should keep sandbars open to boaters, such as at Boca Grande.

### **Diving and Snorkeling**

- [Note: see also sections on "Administration/Education" "Artificial Habitat/Wrecks & Ships to Reefs" and "Submerged Cultural Resources"]
- Recreational scuba divers and snorkelers contribute to tourism revenue by purchasing dive trips, equipment and other diving-related items, and by spending money on hotels, food, air and ground transportation, as well as other secondary items while traveling to local and distant dive destinations. Divers contribute to sales and bed tax revenues for local counties, municipalities and states, and to federal and state tax revenues through the creation of diving tourism-related jobs.
- Recreational scuba diving and snorkeling contribute about \$11 billion annually to the US Gross Domestic Product.
- Florida's coral reefs see over 18 million recreational user visitor days.
- Scuba Diving and Snorkeling create almost 26,000 full-time equivalent (FTE) tourism-related jobs, contributing about \$904 million to the Florida economy each year.

- In 2011 residents learning to dive in Florida contributed another \$23 million in the sales of diving equipment, education and travel to the local economies. There are over 300 retail and resort facilities in Florida dedicated to scuba diving and snorkeling, and over 60 businesses producing products and services related to scuba diving.
- A total of about 39,000 FTE jobs are created by recreational diving in Florida adding \$1.4 billion to the Florida GDP (See EXHIBIT D).
- Of the 300+ dive stores/resorts in Florida, over 50% are affiliated with PADI, and of those more than 150 businesses, 42 are located in the Keys. Florida is the #1 destination of the American diving public, with the vast majority of these divers coming to the Keys, and Florida ranks first among the 50 states as the location where consumer (residents and visitors combined) take or complete their SCUBA training courses. Plus, the vast majority of visitors taking their training will visit the sanctuary during their vacation.
- Commenter has lived here since 1978 and watched the Keys undergo many changes—most not for the better. In working with divers over the past 20 years has yet to meet a diver who has been diving in the Keys and who will ever return, primarily due to the dying reef and poor visibility. The Keys can no longer claim to be a world class dive destination, and may never regain such status.
- "Closures between fishing and diving should be supported by the scientific data. You need to control for diving pressure well as fishing pressure."
- The Recreational Diving Industry is dependent on the availability of quality diving and snorkeling sites, and this dependency extends to hotels, restaurants, marinas and other businesses associated with diving activities. The National Marine Sanctuary System can contribute meaningfully to the availability of quality dive sites, and therefore contributes to the local economies affected by the sanctuary.
- The Diving Industry depends on sustainable interaction with the marine environment as well as with certain submerged cultural resources for its very existence, and is aware of the need for long term sustainability of these resources for all citizens of the U.S. The Industry is keenly aware of this dependence for diving and for all, and as a result is dedicated to a healthy marine environment and protection of submerged cultural resources.
- Divers and diving professionals, and all of those connected with the Diving Industry actively observe and protect the environment on which they depend for recreation, and for their livelihoods.
- Divers represent an affluent demographic that is generally concerned with the environment and with the sustainable use of natural resources (Source: Murch, Arvin. 1971. "Public Concern for Environmental Pollution." Public Opinion Quarterly 35:100-106).
- Scuba divers and snorkelers participate frequently in such activities as underwater photography, observing and counting fish, reporting environmental concerns to state and federal authorities, and participation in beach and submerged coastal clean-up activities (e.g., REEF and Project AWARE).
- "Diving pressure on "fishing" reefs needs to be accounted for."
- "Fishing and diving and open areas should be exclusive to a single use."
- "There needs to be a better mechanism for fishing interests to be reflected in the regulations, and there should be reefs exclusively for fishing and not for diving."
- "Want fairness in protection of resources. Fishing concerns have not been accommodated to the same degree as diving/snorkeling interests, particularly on reefs."
- More mooring for divers and put T bolt surface buoys back.
- Address the fact that since 1990, the local dive business community has capitalized on being within a National Marine Sanctuary without contributing anything to maintenance or upkeep of resources or facilities that they use daily, such as mooring buoys, educational brochures, shipwrecks, artificial reefs, and others:
  - develop a permit system (Special Use, most likely) that establishes terms of access by commercial dive, snorkel, and tour operators to the sanctuary;
  - develop a simple fee system to generate revenue from these operations;

- review/duplicate the many model systems available, such as a “tag” fee for SCUBA tanks that gets passed on to divers (e.g., \$2 per tank, all proceeds go to the sanctuary, and dive operators cannot operate without permit that requires tag fee assessment).

### **Kayaks**

- The purpose is to protect wildlife from disturbance, not discriminate against certain vessel types, so be careful with single-user exclusion areas and close areas to everyone, not just kayaks and/or PWC.
- "Given the right tour guide it can be a very educational experience and that's what we're out there to do. It's all about education. We are the Sanctuary's conduit/teachers."
- Guided tours: protect the environment; save lives; create awareness and educates; allows tourists to experience the beauty of our environment.

### **Personal Watercraft (PWC) Issues**

- [Note: please see “Administration/Education” section for comments related to PWC operator education and licensing, and PWC tours providing visitor education.]
- The current restrictions on PWC in the KW, GWH and Key Deer NWR are in violation of Chapter 327.60 Florida Statute, which states that PWC must be regulated as any other vessel on waters of the State. The FWC Division of Law Enforcement does not enforce the ban because it is against the law. This action is supported by the Management Agreement for Certain Lands in Monroe County, Florida, Agreement MA-44-088, #18, “this agreement shall be governed and interpreted according to laws of the State of Florida.” The current ban should be eliminated immediately in order to comply with Florida law, and the Backcountry Plan should be revised in order to bring these publicly owned waters into compliance with state law.
- The purpose is to protect wildlife from disturbance, not discriminate against certain vessel types, so be careful with single-user exclusion areas and close areas to everyone, not just kayaks and/or PWC.
- PWC problems are caused by the behavior of the operators, so enforce existing regulations.
- PWCs could be considered “traditional” use.
- Other vessels are allowed in NMS, why not personal watercrafts?
- Recognize that recent changes in the PWC industry have led toward greater respect toward and from the fishermen. If this respect can be carried into the restricted areas then PWC should be allowed in there.
- PWC are less environmentally damaging now so don't discriminate against PWCs based on 20 years ago.
- Take into account modern technology of PWCs and science research that has been done.
- All vessels should be treated equally not profiles or treated as a suspect class
- "PWC can have the same effect as boats or weather on the environment. Teach people that by physically showing and telling.
- "Like to see PWC and all vessels equal. We all pay the same for registration, so why do we fall under different rules and regulations?"
- Apply same safety, maintenance, and regulatory requirements equally to all vessels.
- Enforcement should apply across the board to all vessels equally.
- It is illegal to discriminate against PWC's in the backcountry.
- "PWC industry creates over 1,000 jobs and millions of dollars for the Florida Keys tourism industry. Keep PEC allowed to operate (specifically Key West)."
- "PWC industry affects more than just salaries of the people that work in the industry down here. It affects everyone. People that make the PWCs, people that do the tours, anybody on the water. Bar tenders, restaurants, etc/"
- 2011 Economic Assessment Overview of Personal Watercraft Use in Monroe County:
  - Monroe County residents owned and operated 1,900 PWC during 2011. 373 of these boats were rentals and 1,527 were owner-operated.

- Income from sales, use and livery rentals of PWC was approximately \$41 million in 2011, generating and economic output valued between \$73 - \$91 million to the local economy.
- Sales tax on total economic output from PWC sales and rentals generated between \$5.75 - \$6.8 million (7.5% of \$73 - \$91 million) to the state and Monroe County.
- Annual gasoline tax revenue directly from PWC use totals approximately \$939,000 divided almost equally between Monroe County and the state of Florida.
- PWC dealers and rental liveries provide more than 300 full-time jobs in the county. This in turn has a ripple effect on other small business in the county.
- Discriminatory regulations against PWC have a huge economic ripple effect, cascading to fuel docks, marinas, mechanics, restaurants etc.
- Wave runners shouldn't be allowed in backcountry because they scare fish out of flats. User conflict.
- Commercial watercraft, personal watercrafts (on commercial basis), should not be allowed in backcountry because of the disturbance to birds and user conflicts.
- Tarpon are an extremely important resource not only for the sportsman, but for man in general as their population and habits provide a barometer for how good and/or bad our waters are. From March through July, Tarpon follow a natural migration path [see commenter's map A] from the west and either come up the north side of the Levina bank, through the lakes passage, or up the south side of Boca Grande, Woman Key, Man Key and Kingfish Shoals arriving at Key West and Key West Harbor in the thousands. Near Key West the tower flats, pearl basin, calda bank and the seaplane basin (see commenter map A) are some of the most famous, world class Tarpon fly fishing spots (have been for decades) visited by fishermen from all parts of the world each year who spend a thousand dollars a day (or more between guide fees, accommodations and meals) with minimal impact on the environment (most practice catch and release only). This is the type of visitor we want to attract. Tour operators have added thousands of man hours of pressure on migrating Tarpon, other fish, water and bird life in the Key West area due to their rapid growth and proliferation since cruise ship tourists began visiting Key West, and this has been compounded by growth of related satellite businesses (e.g., water tour, water adventure). For example, a 2 hour PWC tour business averaging 10 guests with two tours per day (many do more than that) 182 days per year (50%) puts 7,280 man hours of machine time on the water, often repeating the same path over and over while not watching out for migrating fish. Conversely, a Tarpon fisherman fishing the same 182 days and averaging 3 hours of running time per day (normal would be about 1.75 hrs per day) puts 546 man hours of machine time on the water, going to specific and varied locations while trying not to disturb the fish. For example's sake, if there are 3 such tour operators the man hour difference becomes approximately 40 to 1.
- "The activities of fly fishing and PWC use don't mix - they are like fire and water. While we run our boats to get to a location to fish, PWC users are just running the craft for the view and often at very high speed in large groups and over the same areas several times per day. There have been and continue to be confrontations and near misses with flats boats on almost a daily basis during Tarpon Season."
- The sanctuary and Personal Watercraft Industry Association (PWIA) have teamed together to present The Blue Rider Ocean Awareness and Stewardship Program to promote "environmentally-aware" PWC tours of the Keys. The goal is to ensure that people who rent or own PWC in the Keys understand, embrace and practice good ocean environmental stewardship when riding in the sanctuary, and leave with a deeper appreciation and understanding for the sanctuary. Many rental businesses in the Keys are already doing this important work. The PWC industry is an essential part of our economy that creates over a thousand jobs and millions of dollars for the Keys tourism industry.
- All Personal watercrafts in Key West are Blue Rider certified
- "Like to see areas of the National Wildlife Refuges open up to Personal Watercraft use. Jet drive watercraft of all kinds, not just jet skis."
- "There is a conflict in unmarked channels in the backcountry which are open to anybody between flats guides and others."



- "Like to see non sensitive areas be opened up for PWC. Specifically, west of Key West, Northwest and Southwest ship channels east of the lakes to help get rid of congestion in the harbor. (example: Open water areas, not reefs or mangroves)"
- "Given the right tour guide it can be a very educational experience and that's what we're out there to do. It's all about education. We are the Sanctuary's conduit/teachers."
- Sanctioned watersports companies have educational value through the promotion of better understanding of the ecological importance and promoting conservation of local areas. PWC brings a lot public knowledge to people who would not have otherwise gotten it.
- "Jetskis are good for the environment and other things – why ban them?"
- "Jetskis are too restricted around the islands. Expand Jet ski areas for users."
- "Closures on PWCs will take away a business and livelihoods for operators, booking agents, and others (hotels, concierges)."
- Exclusions zones have caused unnecessary conflict between neighbors (fishermen) and should be addressed.
- PWC do no harm to the ocean floor. The coral reefs are being damaged by black water, bleaching, red tides and oil spills, not by PWC or fishermen.
- FWC enforcement should treat PWC operators with more respect.
- It is really wrong that prohibited areas that do not allow jet skis are not marked.
- Refuge boundaries cause conflicts between PWC operators and fishermen, especially at the point off Ft. Zachary Taylor State Park.
- Limit size for guided personal watercraft tours. For example, have one licensed guide for every five personal watercrafts. Groups now are too big and their impacts are great.

#### **Personal Watercraft (PWC) Suggested Strategies and Tools:**

- Open all waters to jet skis.
- Support PWC tours as they are an educational tool to reach visitors.
- Re-evaluation of restricted vessels i.e., PWCs
- Let all PWC go into the same areas as all other vessels. Exclusion of PWC as compared to jet boats doesn't make sense since they have the same drive.
- PWC is a vessel and should be allowed to enjoy the same areas of the ocean as fishermen.
- Regulations should apply evenly across the board for all vessels. PWCs are vessels, and commenter feels PWCs have less environmental impact than prop boats and bigger vessels.
- Reevaluate/compare the damage done by prop vessels to that done by jet drive and determine which vessel is worse for the environment and causes more damage.
- NOAA and USFWS should open all areas to PWC use because:
  - current regulations prohibiting PWCs from entering the refuges surrounding Key West have created a PWC highway in nearshore waters and a huge safety concern;
  - modern PWC are fuel efficient, low emission, vessels with little draft - the ideal vessel for use in the sanctuary;
  - this would solve many concerns by allowing PWC operators to operate in non sensitive, low traffic areas that are not near swimming areas, and popular fishing spots.
- Open non-sensitive areas to jet skis e.g., northwest of Key West NW Channel area
- Open up non-sensitive areas to PWC (Tank Island), open up deeper areas, and extend area in which PWCs are allowed at least another 200 yards.
- "Open up non-sensitive areas to PWC use in order to spread out the concentration of PWC. PWC industry should have same access as other industries. "
- Excluding PWCs from non-sensitive areas is creating a user conflict since PWCs are confined to such a small area. Open non-sensitive areas to PWC.
- NOAA and USFWS should allow PWC in the refuges because: prohibiting PWC there would destroy my household's only income; there are plenty of non-sensitive areas northwest of Key West that could be used by PWC; opening of non-sensitive areas will decrease the chances of accidents and harm to the environment.

- What was the problem with jet skis? Issue of being responsible operators. Solution: more clearly marked areas of where to go and where not to go; education.
- Allow PWC on one island to enable them to be away from fishermen. Suggest access to Woman Key
- "Current refuge boundaries leave no navigation options for PWC. Change the refuge boundaries to accommodate entry into non-sensitive areas. "
- NOAA and USFWS should not allow PWC near mangrove islands (uphold regulations in place), in the Refuges, or on Smathers and Higgs beaches.
- NOAA and USFWS should eliminate PWC from the Keys completely because:
  - jet skiers are not responsible and PWC tour guides have no clue as to the rules of the road or common sense;
  - PWC terrorize wildlife;
  - it is scary trying to navigate around them to get away from Key West in almost any direction;
  - most tourists, or at least the ones we would like to have come down, would rather see birds, turtles, dolphin and fish;
  - commenter (who boats in the sanctuary for beauty, peace and wildlife) shudders at the thought of hordes of jets skis blasting by Woman Key or up Calda Channel or in Waltz Key Basin.
- While recently riding her bicycle along N. Roosevelt Blvd. commenter counted at least 40 speeding jet skis in the water between Sigsbee and Stock Island - that is crazy.
- PWC businesses (including commenter - 24 year owner of Barefoot Billy's water sports) have formed a co-op that meets regularly to put minds and resources together to make PWC a safer activity that can and will co-exist with other activities flourishing within the same waters. The co-op has reached out to flats guides and light tackle fishermen to gather information to help be better and more considerate neighbors, and has made some progress in a first meeting in which all pledged to reconvene to keep moving forward.
- NOAA should move the sanctuary line to give PWC a little more room in some less or non-sensitive areas, and to better navigate around flats and light tackle fishermen.
- The PWC community employs many families that are dependent on us to make a living (e.g., Barefoot Billy's employs 35 full time employees and spends a large amount of money at local businesses).
- Guided tours are a safer, more educational way to enjoy a PWC on our waters.
- Increase jet ski buffers to 500 feet in populated areas, and ban jet skis completely in sanctuary and refuge areas.
- "No jet skis period."
- "The following are the changes we would like to see.
  1. A little more room to the west of Key West in the Key West National Wildlife Refuge. This will give us the latitude to comfortably move around the anglers off Fort Zachary Taylor and Sunset Key.
  2. To move the southern line in the Great White Heron National Wildlife Refuge to include Channel Key so we may travel to Big Coppit Key when winds are too great to be in the ocean. (We are agreeable to exclude entering Channel Key)
  3. More educational information at Marinas and public boat ramps. Knowledge equals empowerment.

These 3 changes will reduce the user conflict of our fishing friends and family with responsible PWC operators."
- "The PWC rental companies in Key West met with many anglers on June 25th we now have a greater understanding of each user group's needs. Here are the rules both user groups agreed to so far.
 

Here on some guide lines to follow that will help the anglers sharing the some waterways.

1 When passing from west to east between Fleming Key and Demolition Key hug Fleming Key, Stay out of deep water channel. Proceed south until you are in front of the Navy Seal training

building before you head east to Sigsbee. (Stay far off the flats north of Sigsbee especially if you see Flats fishermen)

2. Stay in 15 feet of water along the South side of Key West. Tarpon migrate between 3 and 10 feet of water.

3. ½ mile distance from all fishing boats. Swing fishing boats very wide no more complaints from fishing guides.

4. Stay off the mangroves near Boca Chica.

5. When heading west and approaching Ft Zachary Taylor go the channel marker before heading north into the Harbor.

6. Free style riding should not be held in front of Channel Key. Whenever possible conduct free style riding outside the sub marine pits or in the Ocean."

- "Extend PWC access to upper areas in Windy." [commenter provided map, see regs.gov document NOAA-NOS-2012-0061-0201]
- "This chart shows the non sensitive areas the PWC operators need to help the user conflict with our fishing friends and family" [comment included maps with lines drawn between these coordinates: 1) 24° 36.207 N, 81° 51.719 W; 2) 24° 33.317 N, 81° 50.064 W; 3) 24° 32.00 N, 81° 51.214 W; 4) 24° 32.00 N, 81° 43.231 W; 5) 24° 36.207 N, 81° 42.839 W]
- PWC operators "would like for non-discriminatory access to 'deep water access' shipping channels and including waters as marked by current zones/refuges. Notably west to #1 24° 36.207 N, 81° 51.719 W #2 24° 33.317 N, 81° 50.064 W #3 24° 32.00 N, 81° 51.214 W" [comment included maps with lines drawn on them between coordinates]
- 1) add an idle only zone to the interior of pearl basin (see Pearl basin suggestion attached) and 2) expand the boundary of the refuge from its existing E/W line between the SW corner of the Calda Channel from a point approximately half way between the entrance to Calda Channel and Channel key in a S Westerly direction to a point near the north 1/4 line on Fleming Key then across Fleming Key to the CUP and then proceeding N Westerly back to the entrance of Calda Channel (see suggested boundary change attached). This will address the following problems.
  - Stop running of vessels at full speed through Pearl Basin. Tour operators and light tackle guides use it as a shortcut to other sightseeing, fishing or snorkeling destinations via the NW Channel - instead they can get there by exiting Key West Harbor at the turning basin and going between Sunset Key and Wisteria. Commenter has seen them run over hundreds or thousands of Tarpon here.
  - eliminate PWC traffic (several tours of ten or more PWC daily) thru the Fleming Cut (a.k.a., Garrison Bight Channel), which is extremely important to migrating Tarpon moving between the Harbor and Pearl basin through this cut to enter the seaplane basin and other backcountry areas: PWC are continually running over/bothering massive amounts of fish; PWC are operating in the off limits northern section of the seaplane basin within the refuge (they don't use GPS); PWC traffic creates a navigational hazard for other boaters in this small cut off; given that there is only an age requirement for PWC riders and/or rental a large portion of the riders are inexperienced with the tides and basic rules of the road (for safety commenter has often had to shut down from running his boat when these groups come through).
- NOAA should continue to allow island jet ski tours to go around Fleming Key and the waters of Key West, and should keep Garrison Bight Channel at the top of Fleming Key open to PWC because: Garrison Bight is a navigable channel necessary for running a safe guided tour around Fleming Key; it is not safe to take customers under the Fleming Key Cut bridge when the tide is flowing in and out of the channel (commenter has seen many accidents there); and commenter (owner of S.A. Water Tours jet ski company) is discussing with fly fishing representatives the least impactful ways to go around Fleming Key and Sea Plane Basin and looks forward to finding resolutions that will work for all parties involved.
- S.A. Water Tours (a small jet ski tour company operating around Fleming Key and Key West) brings in a substantial amount of revenue for Monroe County and the State of Florida, supports seventeen families from guides alone, and generates revenue for mechanics, wholesalers, booth staff, sales agents, hotels and restaurants, and other tours (e.g., fishing, snorkeling, and diving).

- They educate customers about the “rules of the road,” boater’s safety, history, preservation, and interesting facts, and at the same time give them a chance to enjoy the water from their own PWC.
- Prohibit PWC through an updated and expanded PWC Prohibited Area that includes all water north of US 1 throughout the Lower Florida Keys, effectively from Big Spanish Channel/Bahia Honda Channel west (commenter provided a map) because:
    - PWC features (small, fast, and capable of accessing extremely shallow water) make them a hazard to wildlife that seeks refuge in shallow bays and flats generally inaccessible to normal outboard-powered vessels, and make them incompatible for use within the FKNWR;
    - US 1 is a tangible boundary that is easily understood by PWC operations as well as law enforcement (unlike the current system following section lines that form the FKNWR boundary).
  - "Open up non-sensitive areas for the use of PWC in The Florida Keys National Marine Sanctuary, The Great White Heron National Wildlife Refuge and the Key West National Wildlife Refuge."
  - "Marking of no entry zones with yellow regulatory buoys."
  - Designate and mark PWC routs. Designate a minimum depth for operating
  - "Requesting that all navigable channels remain clear from anchored vessels."
  - "Recognize Personal Watercraft as vessels and not grouped in with airboats."
  - "Allow for a variance for the use of PWC in non-sensitive areas in The Florida Keys National Marine Sanctuary, The Great White Heron National Wildlife Refuge and the Key West National Wildlife Refuge."
  - I have attached a list of Rules and Regulations the PWC companies in Key West have put together as a standard for our industry. / Please take into consideration the Florida Keys PWC CO-OP Rules and Regulations for Tour Operators, 2) Economic Impact of PWC Operations in Key West [see attachment to this summary of scanned economic impact document]
    1. Zero tolerance for customers drinking alcohol.
    2. 7-14 skis (2) guides, 15-20 skis (3) guides, 20 + skis 4 guides split into 2 tours.
    3. Qualify the riders, if they cannot keep up with the tour take them to a riding area or back to the dock.
    4. Stay out of wildlife refuges and military areas. You will lose your job if ticketed and no other waverunner company will hire you in Key West.
    5. 300 feet between skis
    6. Idle through bridges and sub pits
    7. Control speed of tour w/ rear guide (KA the HAWK)
    8. Slow tour to accommodate boats, go around stern if they are under way.
    9. Swing fishing boats very wide no more complaints from fishing guides.
    10. CPR certified
    11. Blue rider certified
    12. If there is a storm approaching go to port immediately
    13. Sealed case for cell phones. Communication is essential.
    14. Stay away from wildlife.
    15. Respect other tour companies. Keep your distance. Report all discrepancies the owners.
    16. Screw up and you will not be hired by other companies in Key West."
    17. Help other tour companies if needed.
  - "Would like to see jet skis and jet boats allowed to go out to Boca Grande Key and Snipe Key. Less restrictions."
  - "Education, proper waterways are needed that don't restrict PWC or fishermen and that's where the conflict is. Give us open water so we're not conflicting with fishermen."
  - "Have visual markers on no-entry boundaries for PWC operators, and expand boundaries to west of the NW Channel to defuse conflicts with other user groups."

- "Jet ski business provides a lot of revenue to Monroe County. Open non-sensitive areas to PWC operators. Have good education or communication systems PWC operators to learn where and when to avoid conflicts with local fishermen."
- "Increase regulation on PWC operators (for example at Higgs Beach)"
- "Less regulations for PWC operators, so they can have more areas to operate and avoid conflicts with other users."
- I support the existing ban of jet-ski restrictions in wildlife areas/refuges
- "Don't open the backcountry areas to PWC operators."
- "Concerned about safety of both PWC operators and other use groups. Reduce the conflicts between PWC and boat operators."
- "Allow PWC operators to go to other areas rather than just around islands."
- "Better education systems for boaters and PWC operators (e.g. training, license to operate, better test)"
- "Expand PWC area to the west of NW channel."
- "Have better communication system between PWC and fishing businesses."
- "No new closures for PWC. PWCs have been picked on enough. Key West Harbor should be left open. These are most environmentally friendly of all watercraft/vessels."
- "There should be more areas opened up to PWCs (e.g., Snipes Boca Grande) and this will generate more revenue."
- "PWC closure areas should be marked visually so you're not relying on GPS. There should be some allowance on the water for avoidance of obstacles."
- "More of the back country (e.g., Snipes, Marvin Key, Mud Keys) should be open to allow transit of PWCs."
- "The Sanctuary should use the PWC operators to teach people what the sanctuary is all about."
- "Need better marking of no-entry zones for PWC."
- "Blue Rider stewardship program should be requirement for all PWC tour operators to ensure education and compliance."
- Personal watercrafts are self-regulating with Blue Rider Safe Program. If personal watercrafts are following these regulations, personal watercrafts shouldn't be excluded from the Sanctuary.
- "Expand (make longer) the no wake zones."
- Company owners and guides care about the sanctuary and environment, even more than the people trying to make the regulations. Commenter encouraged sanctuary and regulatory officials to take PWC tours to see tour operators' professionalism and respect for the water.
- Take closer look at last five years of economic growth of PWC industry and as well as industry's ability to police itself, improve safety, and proactive actions to minimize damage to the environment.
- How many PWC have been towed out of seagrass flats and off the reef?
- Guided tours: protect the environment; save lives; create awareness and educates; allows tourists to experience the beauty of our environment.
- Recognize that PWC tours routinely clean up marine debris while on the water.
- Limit the number of PWC from west of KW to KW Coast Guard station Boca Chica
- "Neighborhood Watch" among boaters to report bad/impactful boating activity or unauthorized watercrafts.
- Keep spear fishing in the back country. Keep jet skis out of the back country.
- Limited "water trails" for snorkelers and PWCs so that sensitive areas are not impacted. (i.e. U.S. Virgin Islands, Buck Island National Monument)
- Don't discriminate against PWCs; enforce state laws already on the books.
- Limit the number of PWCs per company.
- A request for a personal watercraft exclusion zone around No Name Key
- NOAA and USFWS should not consider a larger area for PWC because: the agencies are not able to enforce what they have now; PWC disrupt wildlife and sport fishing; PWC frequently violate areas where they are not permitted. Google earth aerial views of Boca Grande are heart breaking.

- "There is plenty of room for responsible business operators to use the waters around Key West for wildlife as well as the enjoyment of visitors and locals. Boundaries should be made and enforced with shared goals for all. The enjoyment of the water including Jet Skis is a major part of the Florida Keys and Key West tourism."
- Exclude PWCs at No Name Key and include area in Great White Heron Refuge. [comment includes map – see regs.gov document NOAA-NOS-2012-0061-0172]

## Water Quality

### Issues:

- The consensus of scientific opinion identifies water quality as the primary cause of eco-system degradation, focusing on three specific components, 1) ocean warming, 2) disease, 3) ocean acidification. All of this is exacerbated by wastewater contamination, storm water run-off, sedimentation and a host of other factors. Therefore, efforts addressing water quality should be given the highest priority.
- As part of the FKMS 2007 Management Plan, Water Quality Action Plan strategies, the Sanctuary was to "develop water quality standards, including nitrogen and phosphorus standards and biocriteria, appropriate to Sanctuary resources. The intent was to implement water quality standards as guidance in determining permitted discharge limits. Waters are not to be degraded below these standards. Yet, the Florida DEP is basing their proposed Numeric Nutrient criteria on maintaining current "healthy" conditions. Evidence clearly shows that current conditions are not "healthy" and that water quality is linked too much of the decline in health of the Florida Key National Marine Sanctuary resources.
- The Florida Keys National Marine Sanctuary Management needs to be proactive on water quality improvement. The current Water Quality Protection Plan within the FKNMS revised Management Plan (2007) focuses on monitoring and research in conjunction with the EPA and Florida DEP with minimal tangible action. Monitoring and research are important in the management of sanctuary resources and are intended to be translated into actions that improve the viability of sanctuary resources. Increasing stresses on sanctuary resources from global climate change add an expedited need to address other stressors such as water quality to help coral reefs survive in the long-term.
- Dr. Brian E. Lapointe, Research Professor of the Marine Ecosystem Health Program at Harbor Branch Oceanographic Institute at Florida Atlantic University has stated that "The available data indicates that DIN and SRP concentrations averaged  $\sim 0.5 \mu\text{M}$  and  $0.04 \mu\text{M}$  in the 1980s, and chlorophyll a averaged  $\sim 0.15 \mu\text{g/l}$  (Lapointe et al. 2002, Lapointe et al. 2004, Lapointe et al. 2007a). Appropriate average total nitrogen (TN) and total phosphorus (TP) concentrations for offshore bank reefs in the FKNMS should be no more than  $9 \mu\text{M}$  ( $= 0.13 \text{ mg/l}$ ) and  $0.16 \mu\text{M}$  ( $=0.005 \text{ mg/l}$ ); all the FDEP proposed geometric means for exceedance of TN and TP NNCs are above these concentrations. The proposed chlorophyll a geometric mean standards for exceedance range from  $0.2\text{-}0.3 \mu\text{g/l}$  for offshore reefs from the Upper Keys to the Lower Keys, which are considerably higher than the mean values ( $0.15 \mu\text{g/l}$ ) for Looe Key in the 1980s." (Brian E. Lapointe, Ph.D. Comments for Reef Relief on the FKNMS Management Plan)
- Research has shown that nutrient levels of coral reef ecosystems need to be maintained at far lower levels than what is regarded as normal to other marine ecosystems. Research in the Caribbean and in the Great Barrier Reef of Australia has established that critical levels of nitrogen and phosphorous must not be exceeded if reefs are to remain healthy (Lapointe et al., 1992, 1994, Bell, 1992).
  - Dr. Thomas J. Goreau, the President of the Global Coral Reef Alliance, & Scientific Advisor to the Negril Coral Reef Preservation Society has outlined these levels in "Coral Reefs, Sewage, and Water Quality Standards". Caribbean Water and Wastewater Association Conference. Kingston, Jamaica, October 3-7, 1994.
  - These concentrations are (in the weight units more often used in the wastewater literature):
    - Nitrogen:  $0.014 \text{ ppm N}$  or  $0.040 \text{ ppm NO}_3$
    - Phosphorous:  $0.003 \text{ ppm P}$  or  $0.007 \text{ ppm PO}_4$
- The loss of freshwater flow out of the Everglades, nutrient loading and ocean acidification are not discussed or addressed adequately in sanctuary operations and position papers. While this is a huge problem, it is not too big for us to solve and more can be done to educate the public and take an active stand against those who continue to pollute our watershed and add nutrients to local waters.

- Plumes of filth that amount to public cesspools flowing out on the tide can be observed at Bonefish Towers in Bonefish Harbor, and plumes of effluent from upland sources push past the Gulf side on the east end of Seven Mile Bridge for the first 8-10 pilings, causing eutrophication that extends further and further each year that displaces marine life further west.
- NOAA and USFWS must find the money to clean up the water, and find the money to hire more law enforcement officers.
- "Improving water quality is the priority."
- PWC do no harm to the ocean floor. The coral reefs are being damaged by black water, bleaching, red tides and oil spills, not by PWC or fishermen.
- The sanctuary should take a firmer stance against agricultural runoff in South Florida.
- Improve water quality for future generations.
- Restoral of freshwater flow to Everglades.
- No discharge rules (specifically Ships Reg. 5531) are unmanageable for large ships.
- Can we do something about dumping outside of FKNMS (e.g. cruise ship dumping)?
- Watershed management such as managing agricultural runoffs, raw sewage, and dead zones from Mississippi River.
- Septic systems have been a problem, but that has been addressed, so things might get better with a little time.
- It is time to readdress water flows to eastern Florida Bay. Bass fishermen on the mainland are holding up flows into the Bay because they don't want to see freshwater canals on the mainland closed/plugged, so that the water can be diverted south to the bay. There is too much water in western Florida Bay when water is needed in the eastern bay.
- Water quality coming out of Florida Bay is the single most important issue.
- Sewage should be controlled, in terms of water purity/quality. As a biochemist/physician, water is every level of life. Ex: References endocrine receptors. Dilution is not necessarily the solution to pollution (sometimes it works though)
- Commenter observed an entire field of thousands of human feces floating by while anchored on the west side of the Marquesas Keys 2 years ago and concludes that since the City of Key West no longer dumps raw sewage in the harbor, it must have come from a cruise ship.

#### Suggested Strategies and Tools:

- The FKNMS Management Plan needs to outline specific nutrient and other pollutant goals and criteria that will protect and restore all Sanctuary resources based on the best scientifically available research and methods. Sanctuary waters were declared "Outstanding Florida Waters" in 1985 with the intention to protect the water quality from any further degradation.
- The FKNMS Management Plan needs to develop a meaningful water quality restoration plan if the trend of resource decline in the FKNMS is to be reversed. Most importantly, dissolved inorganic nitrogen (DIN) and soluble reactive phosphorus (SRP) concentrations need to be decreased to concentrations that existed in the 1980s when FKNMS resources were still in "good" condition. (Brian E. Lapointe, Ph.D. Comments for Reef Relief on the FKNMS Management Plan).
- Given the current condition of FKNMS marine resources specifically in relation to water quality, the review of the Management Plan needs to use the research made since its initial completion and develop specific actions to address water quality. The State of Florida is not going to address the reality of current Sanctuary water quality without pressure from Sanctuary.
- Require EPA to better enforce water quality standards by restricting the outflow of nutrient enriched runoff from agriculture in both central Florida and the Mississippi Delta. Both drainages empty into the Gulf of Mexico and ultimately pass by us causing the sanctuary waters to have constant micro and macro algae blooms to the detriment of the reef and surrounding environment. Enforce the Clean Water Act – in the wake of Hurricane Katrina black water passed by us for over 2 months.
- Strongly enforce all cruise ships entering sanctuary waters being prohibited from dumping any human waste and any garbage into the ocean at any distance from shore – current distance limits



do not do the job and plastic trash, nutrient loading and bilge oil pollution causes immeasurable harm to wildlife.

- "Work on water quality"
- Throughout the keys no more road drainage systems should be built that drain street runoff directly into the ocean (as the City of Key West is presently installing), because this pollutes nearshore waters terribly, makes beaches dangerous for swimming, and is also endangering frogs that breed in the puddles in the spring. Communities throughout the Keys that do not have municipal sewer systems should install them and hooking up to them should be mandatory.
- More research on water quality coming from mainland Florida.
- Need to get sewers in the Keys. Upstream/regionally should be required to reduce effluent out-flow, for better water quality.
- NOAA and USFWS should convince the City of Marathon to address the severe shortcomings of the new Key's wide wastewater treatment plant (which is important given that the impact of nutrients like nitrates and phosphates entering our water ways is the primary killer of the reef):
  - it is dumping partially treated, yet nutrient loaded waste water into shallow (90') ground wells from which it will readily enter our water ways (as demonstrated by the city's own studies and city staff are aware this is happening within a few weeks of the waste water entering the well);
  - a well drilled to 1500' or 2000 feet without a significant total increase to the budget could have placed this nutrient laden water much further down into the aquifer making it far less likely to enter the surrounding water ways;
  - the community spent money and dealt with torn up streets and tons of dust for no real tangible net benefit;
  - The grey water should be used for a tangible benefit in the form of irrigation to allow nutrients to be utilized by all the various plantings, for watering lawns, parks and ornamental shrubs and trees while at the same time saving the community hundreds of thousands of dollars in use of aqueduct water for irrigation.
- Does not agree with closure on banks, concerned with storm-water drainage and sewer issues and now there might be closures in the bay. Let's let the new sewer system work to see if things get better before closing down new areas. Improve water quality by restricting nutrient enriched outflow and run-off coming from agriculture in the Florida and Mississippi delta. Key West has a high level of bacteria and we need to locate the problems
- Upstream water quality issues need to be addressed e.g. farming in southwest Florida.
- NOAA and USFWS should increase enforcement of moored vessels as they are creating a navigational and environmental hazard.
- Although we need to protect our environment, instead of increasing no-take zones, NOAA and USFWS should find a positive solution for both sides of the argument and focus on the big picture issue of water quality because: increasing no-take areas will make it more difficult or impossible for too many hard working locals (who should be commended for providing products for local markets and restaurants) and their families to earn a living; and by fixing the water quality problem everything else will fall into place.
- NOAA should address water quality issues relating to human-related releases of nearshore point sources of endocrine disrupters, antibiotics, hormones, sunscreens, including by:
  - utilizing/soliciting recent scientific research on these topics (i.e., recent release of issues relating to sunscreens);
  - changing the way of thinking and common practice of the U.S. EPA to "Dilution is NOT the solution to pollution;"
  - partnering with medical doctors, especially those that are currently educating their patients on these issues by example;
  - promoting titanium oxide and zinc oxide sunscreens via partnering with BLUE STAR operators/dive shops, medical practitioners / dermatologists in South Florida and the Keys.

- Science shows that closed areas inside the FKNMS have not had a positive impact on the corals and there is concern among many that water quality is the major problem. The FKNMS needs to focus first on the water entering the sanctuary that is having a negative impact on the corals.
- NOAA and USFWS should evaluate all published research, both local and abroad, on mosquito spraying in nearshore waters to improve understanding of its potential effects (especially aerial spraying of the naled and permethrin adulticides) - we are abusing the use of these pesticides.
- To improve water quality NOAA should:
  1. Enforce the no discharge regulations both on the water and in marinas;
  2. Develop methods to improve canal water quality;
  3. Support the development of managed mooring fields throughout sanctuary.
- NOAA and the sanctuary's biggest goal should be finding a solution to the high nutrients in the water given that every underwater ecosystem thrives on healthy water and in the last 10 years water quality in the sanctuary has continued to decline.
- NOAA's first and foremost priority in the Keys should be water quality as it has gotten progressively worse over the year (e.g., we had a 3 week period with no wind and the water should have been spectacular, but instead visibility was only 10 to 15 feet).
- NOAA should not close areas prior to actively fixing the sanctuary's biggest problem, which is water quality (including water entering the sanctuary from outside) continually degrading corals and other benthic resources, because doing so puts undue and unneeded burden on the stakeholders for no net positive return of the benthic resources - science shows that closing areas in the sanctuary will have no positive impact on reducing or reversing the decline of corals and sponges.
- "I am supporting closed areas with moorings as an alternative to anchoring and having seen the benefits of existing closed areas like Western Sambo where it goes from shore to the reef, covering all habitats, I support existing closed areas."
- "Better watershed management to improve water quality in FKNMS. Don't close down areas based on local conditions when the problem is actually coming from somewhere else."
- "Use channel dredging as water quality mitigation instead of requiring mitigation to dredge (or channel desilting). Establish mitigation bank."
- "Use of sunscreen, especially on dive boats, should be limited."
- "Close an area from Key Haven to Sugarloaf on the Gulf side to sponging and study how this closure affects/improves water quality."
- "Support research to study any sponge closures and affects to water quality."
- "No chemical dispersants in sanctuary. Do not allow/permit use. "
- Address upstream influences to water quality, such as the Mississippi River. What good are local regulations if regional issues are not addressed?
- Improve water flows and water quality by opening up areas where roads and canals reduce circulation. Increased flushing will improve dissolved oxygen levels.
- The EPA has been instrumental in Keys water quality improvements made to date. EPA must not take its eye off the ball by continuing to erode funding and staffing for the FKNMS Water Quality Protection Program in favor of other EPA activities outside the Florida Keys.
- NOAA should address Key West's high levels of bacteria on the beaches (despite the city having sewer for many years) by finding the source.
- To address near-shore water quality: a) clean-up storm water run-off from U.S. 1; b) eliminate inshore sponging; c) study mosquito control practices for possible pollution; d) ban dumping of fish carcasses in near-shore waters.
- Be advised that all the damaged reefs, sea grass and sea life scientifically comes from black water, red tides and bleach. Also, there are still thousands of home owners in the Florida Keys that have septic tanks and drain fields, and who dump their pools into the ocean.

### **Liveboards**

- Consider integrating programs, such as the Monroe County mooring and anchoring pilot programs.

- The Zoning and Regulatory Review Process should address the important issue of live aboard vessels specifically in the Lower Keys wildlife refuges, and generally throughout the entire FKNMS. Liveaboard vessels should be prohibited outside of established Managed Mooring Areas and all live aboard vessels should be required to adhere to environmentally-sound mooring and waste management practices because:
  - although long-term mooring over State-owned submerged lands is prohibited, enforcement is lacking;
  - unregulated mooring over seagrass and coral results in benthic damage;
  - vessels ultimately become derelict and wind up sinking or shoaled (e.g., in Niles Channel), discharging sewage and solid waste;
  - The number of live aboard vessels in areas of the Lower Keys formerly devoid of such vessels (e.g., Saddlebunch Keys, Sugarloaf Sound, Niles Channel, and sporadically throughout the Lower Keys backcountry) is increasing.
- NOAA and USFWS should require owners of anchored vessels to purchase and maintain proper mooring systems in designated areas along the Keys via a permit system:
  - There are places throughout the sanctuary where vessels are anchored indefinitely for living and/or personal storage, without DEP permits or proper moorings;
  - permanently anchored vessels cause damages that violate sanctuary regulation 922.163(a)(3) prohibiting alteration of the seabed;
  - permanently anchored vessels cause damages in large areas of living marine resources: long lengths of anchor chain scour the sea bottom and/or destroys all living organisms where the tackle placement rests; irresponsible vessel owners throw debris such as engine blocks, bricks and heavy iron objects and anchors that can annihilate all living organisms in its path; discharges, shading and garbage;
  - Permanent anchorages can be visible from shore;
  - vessels break free dragging improperly set anchors and chain that damage resources along their path, ultimately landing in shallow water, with most then abandoned by the owners.
  - vessel owners using sanctuary (public) resources for their own personal benefit need to be regulated so as not to produce a user conflict;
  - free permits will not take away the ability to anchor, but will ensure use of proper mooring and thereby resource protection;
  - permits should establish mooring zones where there will be minimal impacts to resources, establish a minimum distance from shore, appropriate mooring for the size of vessel, appropriate land fall and pump-out requirements;
  - proper mooring fields will increase user safety while protecting sanctuary resources;
  - evaluate each permit annually.
- "Establish zoning for currently used managed or semi-managed mooring locations and the FWC pilot project"
- Consider incorporating the managed mooring fields (i.e. Boot Key Harbor and Key West Seaplane Basin) that have come online since FKNMS establishment and the FL Fish and Wildlife Conservation Commission/Monroe County pilot project to better manage the less formal mooring areas (i.e. Cow Key Channel, Boca Chica Channel, etc.) into FKNMS Zoning.
- "Establish zones for mooring fields, transient anchorages and resident anchorages that provide adequate use opportunities, but limit damage to resources and pollution."
- Require more mooring fields and pump outs for live-aboard vessels.
- I don't support the unmanaged live-aboard within the Sanctuary.
- Good job on mooring buoys.
- Mooring buoys focus impacts to specific areas. Proposing to not create more because these actually harm the reefs more than help
- More mooring fields should be available for both local and transient boaters. Specifically between Bahia Honda key and Ohio key on the north side. And other popular areas.
- As a member of the port advisory committee, he sees the need for more managed mooring buoy field throughout the keys. This will prevent anchor damage and provide pump-outs that protect

local water quality and resources. Mooring fields should be available to live-aboards and transients. Managed anchorages should also provide land amenities for boaters. This kind of resource protection will help maintain and increase property values for everyone.

- I support legislation that is requiring live-aboard vessels to have pump-outs as a solution to near shore water quality issues
- Dredging can be a good mitigation effort for water quality by desilting or reopening traditional water way/flow patterns
- Install moorings in heavy traffic areas where the sea bottom is being dug up with multiple anchoring. There are numerous places in the area known as the backcountry that could use moorings and a study should be done to locate them, but I will address the one area I see needing moorings. Between Ohio Key and Bahia Honda Bridge on the north-side of what is known as Bahia Honda State Park. It is a very popular area not only for the locals but an area that is next to the Inner Coastal Waterway where boats traveling thru the ICW visit the State Park and spend the night. It is one of the best places to get out of a south-east or south wind. I would recommend line of moorings in the 3' depth area for the small local water craft boat that continuously use this area throughout the year. Also a line of moorings in 6' depth area for sailboat or larger draft motor crafts.
- Piney Point subdivision on Big Pine Key is more than 50% owned by Fish and Wildlife, and many other conservatory organizations and entities. The Fish and Wildlife parcel has become a de facto marina for small craft and dinghies landing at this site day and night, which bring strangers into the subdivision. Fish and Wildlife is unable to control these live aboard landings on their property and the live aboards use the closed portion of Richard Road as their access to the subdivision, parking their cars and bicycles on the County right of way (closed portion of Richard Road). For many years, the residents have objected to the live aboard boat landings on the Fish and Wildlife property. This parcel has become an "attractive nuisance" to waterfront homeowners, and it is designated "passive use" which means walking only – not dinghy landings. Despite residents going to the authorities many times there is confusion as to jurisdiction and authority and little action has been taken. New rules being discussed by the scoping committee should address this situation.
- Charge a significant, yet 95% refundable, mooring fee, in the amount sufficient to remove that vessel, in the event it becomes derelict. It is easy for a vagrant boater to anchor in the existing mooring fields and simply disappear when the wanderlust strikes, leaving us to clean up the resultant mess.
- Because Rodriguez Key WMA is closed to motoring and hence has no mooring buoys for motor vessels, they anchor on the sea floor after pushing/swimming their boat inside the WMA. Consider closing Rodriguez Key to anchoring to prevent damage to the shoal/banktop, which has a diverse finger coral/algae community and serves as a nursery ground.
- Add a mooring buoy at "Flagler's Barge" (Marathon).
- Florida Key sanctuary should adopt regulations specific to abandoned and derelict vessels, similar to those at the Monterey Bay sanctuary (at § 922.132). While current regulations regarding discharge or vessel operations can apply in this situation, the problem is significant enough to warrant specific regulations.
- Develop regulations limiting live aboard anchorages.
- Develop an application process to establish personal (private) moorings for long term anchorages.
- NOAA should add several mooring balls to the SL-1 area.
- NOAA and USFWS should consider recent state and local laws designed to address resource challenges in the FKNMS, including challenges identified in the 2011 sanctuary condition report, such as: Fla. Stat. § 253.04(3), Fla. Stat. § 403.93345, and Monroe County participation in an "Anchoring and Mooring Pilot Program" per Fla. Stat. § 373.4105.
- NOAA should prohibit floating casinos and other permanently anchored businesses.

## **Marine Debris**

- NOAA and USFWS need to direct the Coast Guard and the Border Patrol to not abandon refugees' personal belongings along the beaches and shorelines when removing them from offshore islands - this is aiding and abetting in the crime of felony dumping in our National Wildlife Refuges. The beaches in the Marquesas are littered with refugees' belongings because the responding agency does not care if they litter in a National Wildlife Refuge/Designated Wilderness Area. Both Coast Guard and Border Patrol should be embarrassed and ashamed for decades of trash they left behind.
- "Require Cuban migrants to clean up their own debris. Require enforcement/US Coast Guard to bring in migrant debris when they bring in migrants."
- Cuban Refugees landing on (Key West) National Wildlife Refuge Islands, and being rescued from Islands, are told by Immigration/Border Patrol/Coast Guard that they may not import their belongings into the United States and they are ordered to abandon boats/ backpacks/ foods/ personal belongings on the refuge islands. If a private individual abandoned their belongings on the islands they would be charged with felony dumping. The Agency removing the refugees should also remove refugees' belongings and dispose of them properly.
- MOU between the Sanctuary, Fish and Wildlife Service, USCG to clean things up. The Marquesas are trashed, messed up. Disposal of landings, specific to immigrant landings.
- Limit trapping areas and shorten trapping season. Concerned about the high prevalence of trapping equipment, and ghost traps.
- Lost fishing gear also causes great damage. We need to act to recover fishing nets, fishing traps and other fishing equipment that is lost in these areas but continues to take fish.
- "Make it easier for locals to remove ghost traps during closed seasons, enable them to do it as an individual, not only for one day but whenever. Comment was reiterated by a second commenter. "
- I would like to see, after a season is over, the easing of restrictions on removing traps and debris to reduce ghost fishing and habitat damage.
- Trap debris is a huge, well recognized, unresolved problem impacting resources from mangroves to the deep reef. This problem also was documented with serious concerns expressed by the public back in the 1980s and early 1990s. Little has been accomplished to date, trap numbers are still high, and the limited clean-ups that occur are just that. Either solutions need to be found or the inshore (<100') trap fishery phased out and other means of harvesting appropriate sizes and numbers of lobster identified and pursued. As an example of the scope of the problem, and using accepted figures for annual trap numbers and loss since 1990, NOAA should calculate the number of concrete slabs from the bottom of lobster and stone crab traps that remain on the seafloor in the FKNMS displacing and impacting native habitats. And then using something like 20' for the average length of virtually non-degradable trap line lost, calculate the length of lost trap line in the FKNMS since 1990. The numbers are staggering, the damage and destruction extensive, and the issue must be seriously addressed.
- The sanctuary should clean up our waterways which are filled with trash: plastic bags, cigarette butts, fishing nets, sunken vessels, glass bottles, abandoned crab traps - the list is endless. Some of this marine debris comes from human activity at sea. Some of it is carried by the wind or is carried into our waterways from land. There is a Marine Debris Program but it sucks.
- NOAA should address derelict fishing gear because it causes fishermen to spend valuable fishing time disentangling it, and it impacts NOAA and the public by degrading sanctuary marine resources (e.g., entangling endangered and protected marine mammals). Fishermen are frustrated with this recurring problem and want to act responsibly but have few options for addressing it. It falls on deaf ears at SAC meetings as SAC members are not paid - the sanctuary is the only "body" that is getting paid.
- Recognize that PWC tours routinely clean up marine debris while on the water.
- Marine debris is a serious health concern, worldwide, and is a significant problem in the FKNMS. More education for prevention, as well as support for alternatives to plastics in the environment and funds for cleanups is necessary. This is but one aspect of water quality, which is another significant concern that should receive more attention and support.
- While the responsibility for roadway maintenance falls on the county and FDEP greenways, roadway trash gets into and impacts state waters within the sanctuary:

- trash piles up at boat ramps/road ways, bridges and other locations (worse at heavy use locations and during heavy use weekends) until it is scheduled to be picked up, creating the opportunity for it to spill over, blow around and get in nearshore waters;
- much of this trash originates right there nearby on land;
- Even when people try to dispose of their trash properly, many cans don't have lids and the wind can lift out the trash and drop it elsewhere.
- Add "littering" to the Florida Keys sanctuary prohibition on discharging or depositing at § 922.163 (a)(4), similar to the Fagatele Bay sanctuary prohibition on littering, depositing, or discharging at § 922.102 (a)(4).
- NOAA should require commercial lobster and crab traps to be removed before tropical storms and hurricanes, and should utilize the NOAA weather warning system (which provides several days to weeks advance notice of storms) to advise those affected by this restriction.

### **Pump Out**

- "Need more pump-out stations throughout the Keys."
- Require more mooring fields and pump outs for live-aboard vessels
- Enforce pump-out regulations and install/have more pump-out boats and facilities.
- As a member of the port advisory committee, he sees the need for more managed mooring buoy field throughout the keys. This will prevent anchor damage and provide pump-outs that protect local water quality and resources. Mooring fields should be available to live-aboards and transients. Managed anchorages should also provide land amenities for boaters. This kind of resource protection will help maintain and increase property values for everyone.
- I support legislation that is requiring live-aboard vessels to have pump-outs as a solution to near shore water quality issues
- "Increase the number of pump-out facilities throughout the Keys. Pump-out stations should be easily accessible for commercial and recreational boaters."
- Address commercial vessel pumpouts since the county will only pumpout recreational vessels.
- Open up funding (i.e., boating improvement fund), incentives for pumping out.
- Recommend using the bathroom before disembarkment.

## Wildlife Protection

### Issues:

- [Note: see also “Seagrass Protection/ No-Access / No Motor / Buffer Zones” and “Seagrass Protection/ Pole-Troll”]
- Critically sensitive areas need to be clearly marked and posted, and continually maintained.
- "[Refuge managed] areas need to be monitored and changed/revised frequently. I would say at least every two years."
- Sea turtles, small sharks, bonefish, the heron/egret complex, shorebirds, alligators and crocodiles are keystone species that should be fully protected and used with other identified species to help assess and monitor the health and integrity of shoreline and shallow water areas throughout the FKNMS. Protecting and restoring their habitats is critical to the future of the sanctuary and refuges.
- Sharks of many types and sizes, bonefish, tarpon, permit, barracuda, rays, birds, and turtles are mostly intolerant of human activity and have been widely displaced by vessel use and activity in shallow and nearshore Keys areas.
- Disturbance of fish and wildlife is well known in the Keys and documented elsewhere as well, but is mostly ignored as an additional reason to provide the level of protection to shallow and nearshore habitats warranted based on the significance of the resources.
- "Concerned about overall health of sea life within FKNMS. Needs clear guidelines to protect sea life."
- Boating and watersports activity has expanded in the Keys since 1990 and pressures still exist to expand and legitimize what are well known to be damaging activities.
- Jet noise has a huge impact on nesting birds and something should be done.
- Mother Nature/storms change the bottom in the back country, affecting wildlife. It's not people changing the back country, harming wildlife.
- The wildlife doesn't read the regulations. And wildlife will change its habits according to stimuli that we understand only after the fact. Tarpon, for instance, are specie that has existed for tens of millions of years. The habits of Tarpon over the past two hundred years represent only the blink of the eye in its history.
- Do something about commercial traps in channels and on resources.
- We have too many regulations. No all nesting birds need to be protected.
- Try to protect migratory fish. Have the zones connected to protect those migratory fish.
- Improve enforcement on mangrove trimming/cutting along the shorelines. Homeowners and others cut them down and then just receive a fine and a slap on the wrist from FDEP for it. Mangroves are important habitats and we are losing them too quickly. They are deserving of protection.
- FWC and other agencies should consult homeowners association before buying land and enforce regulation on existing properties
- Problem with original plans are the zones (in the back country). Wildlife move not within boundaries. Need to take action when/where the colony moves. Ex: brown pelican
- Update Wildlife Management Areas to account for changes in bird nesting/roosting areas since establishment. Make them more flexible because wildlife comes and goes. New sandbars/islands (e.g. Bruce Key/Wilma Key near Boca Grande Key) should be automatically closed to human use by USFWS when they appear because they are precisely what some birds need for resting and breeding.
- Significant changes in the benthic communities and shorelines of the Keys have taken place in the last 60-70 years and quality historic aerial imagery is easily used to document these changes, to provide history, trends, human impacts and other measures of habitat important to proper management. We would like to be allowed in the future to provide you documents and historical perspective related to your review and development of a historical framework of both human impacts and a view of the historical ecology of the Keys.

- USFWS needs to decide how many deer Big Pine Key can handle and come up with a way to handle the excess: moving them to other Islands is not the answer.

#### Suggested Strategies and Tools:

- We recommend that natural processes be allowed to play out in the backcountry of the Lower Keys with minimal disturbance by human activity.
- NOAA and USFWS need to improve diver and boater education to reduce physical impacts on coral reef areas and sea grass habitats.
- USFWS should take immediate steps and engage in long-term planning to secure, protect and expand the population of the federally endangered Miami Blue butterfly, whose only U.S. population flies on certain keys in the Key West National Wildlife Refuge.
- It is vital that NOAA and USFWS exponentially increase each year the number of no-motor zones, vessel exclusion zones, no-take zones and no-wake zones:
  - as these zones have proven to increase the robustness of sea and bird life throughout the entire Florida Keys;
  - to protect Florida's economic assets;
  - as it is important to increase these zones as human population density increases;
  - Since without these measures, there will be no Florida Keys.
- NOAA and USFWS should limit the amount of kayaks to 6 per charter boat around the mangrove islands.
- NOAA and USFWS should establish regulations (e.g., a ban or steep tax) on harmful antifouling boat paints, proven to have negative effects on gastropod reproduction.
- NOAA and USFWS should require each SCUBA certification course to cover habitat interaction and harmful human effects.
- Address fish feeding by expanding state fish feeding regulations into federal sanctuary waters and codifying them in sanctuary regulations (include careful review of the state definition and modify/update it as needed for sanctuary purposes; or, if NOAA does not prohibit fish feeding sanctuary-wide, clarify the “no discharge in SPAs” regulation and how it relates to fish feeding for attraction purposes:
  - discharging fish food into the water impacts the behavior of fishes in the sanctuary and can have water quality, and human health issues;
  - the case of Capt. Slate, in which fish feeding occurs (mouth to mouth) without extensive discharge into the sanctuary, necessitates more explicit rule-making;
  - also consider issues around fish feeding at restaurants and marinas (e.g., Robbie’s, fish food machines at docks and restaurants), pumpkin carving, fish cleaning, dumping of fish waste by a marina(s), restaurant(s) and connection to discharges.
- Address fish feeding:
  - it results in altered behavior;
  - fish who have been fed at popular dive sites approach people instead of ignoring them or shying away from them as they should;
  - from shore it might not qualify as a discharge since people can directly feed the fish without actually discharging into sanctuary waters (they jump up to get the food right from your hands);
  - restaurants engage in it;
  - throwing fish scraps in canals may be attracting crocodiles, which already like the quiet waters in the canals on the bay side.
- NOAA should address commercialized fish feeding and the dumping of fish carcasses in nearshore waters because:
  - they alter fish behavior and cause fish to associate people, boats, and docks with food;
  - they concentrate fish into confined areas where they are easily targeted and prone to over-pressure;



- from an economic standpoint, tarpon in particular are more valuable swimming and feeding in their natural settings than congregating at feeding areas where they cannot be fished.
- Add clarity and specificity to the discharge rule to address fish feeding; since most people do not think of fish feeding as discharge there is confusion.
- Enforce existing sanctuary discharge regulations as they apply to diver-based fish feeding as well as shore-based fish feeding (tarpon pellets), or create a specific sanctuary regulation addressing diver/snorkeler and shore-based fish feeding sanctuary-wide. Do not allow grandfathering of existing business owners who claim that their livelihood will be affected.
- Increase penalties for feeding/harassing/interacting with Key deer, and enforce the laws.
- NOAA should not allow airboats anywhere in sanctuary waters!
- NOAA should prohibit activities (sandbar anchorage) that are destroying submerged resources in the Rodriguez Key Wildlife Management Area, and should consider a no-anchor zone, and expanding the no-motor zone.
- NOAA should limit traffic and move tour operations to allow free and uninhibited Tarpon migration (Calda Bank, Pearl Basin, Tower Flats and the Sea Plane Basin are important in the annual migration) because the survival and sustainability of this magnificent and economically valuable species is paramount.
- Closure of tarpon fishing
- Since the proliferation of PWC tours the birds no longer sit on the south side of the small key between the north end of Fleming and the Calda Channel, waiting for a meal to float or swim by.
- add an idle only zone to the interior of pearl basin (see Pearl basin suggestion attached) and 2) expand the boundary of the refuge from its existing E/W line between the SW corner of the Calda Channel from a point approximately half way between the entrance to Calda Channel and Channel key in a S Westerly direction to a point near the north 1/4 line on Fleming Key then across Fleming Key to the CUP and then proceeding N Westerly back to the entrance of Calda Channel (see suggested boundary change attached). This will address the following problems.
  - Stop running of vessels at full speed through Pearl Basin. Tour operators and light tackle guides use it as a shortcut to other sightseeing, fishing or snorkeling destinations via the NW Channel - instead they can get there by exiting Key West Harbor at the turning basin and going between Sunset Key and Wisteria. Commenter has seen them run over hundreds or thousands of Tarpon here.
  - eliminate PWC traffic (several tours of ten or more PWC daily) thru the Fleming Cut (a.k.a., Garrison Bight Channel), which is extremely important to migrating Tarpon moving between the Harbor and Pearl basin through this cut to enter the seaplane basin and other backcountry areas: PWC are continually running over/bothering massive amounts of fish; PWC are operating in the off limits northern section of the seaplane basin within the refuge (they don't use GPS); PWC traffic creates a navigational hazard for other boaters in this small cut off; given that there is only an age requirement for PWC riders and/or rental a large portion of the riders are inexperienced with the tides and basic rules of the road (for safety commenter has often had to shut down from running his boat when these groups come through).
- Eliminate the “on water” staging of PWC tour operators from the south side of Pearl Bank so that tarpon may once again move through that area. This are used to hold large amounts of tarpon each season, but with the current tour barges and permanent facilities anchored there, you just don't see many fish there at all.
- "Institute regulation for catch and release of sharks and rays, or a size limit, or use tags.”
- Killing of sharks and rays should be prohibited throughout the sanctuary because: they are an essential component of the marine ecosystem; it is a waste of these important animals as take is mainly for sport or to supply crab trap bait. This prohibition will have a negligible impact on people since very few people eat them.
- It should be illegal to kill or possess any Greater Barracuda throughout the sanctuary because they are great fish and are a major asset to Florida Keys diving and ecotourism. They are rarely

consumed due to toxins, but are killed for dock trophies, because they are perceived as a threat to fish stocks, or just for fun.

- The return of Goliath Grouper is a management success that has restored an apex predator to the ecosystem. Killing Goliath Grouper within the sanctuary should be specifically prohibited, regardless of whether the Florida-wide prohibition on take is lifted, because they have great, sustainable commercial value to the Florida Keys diving and ecotourism economies that outweighs short term harvest values. Plus, with the decline in our water quality and coral reefs, maintaining the attraction of seeing large Goliaths seems a smart choice.
- Lobster traps should be prohibited in areas known to support hard and soft coral communities because: it is illegal to damage stony coral within the sanctuary without specific authorization; large-scale impacts to corals in natural areas such as hard bottom and reef areas are tolerated by the commercial trap industry (e.g., commenter has observed lobster traps in areas of well-developed coral reef throughout the Lower Keys including nearshore patch reefs as well as low-profile reefs on the outside of Hawk Channel); lobster traps dragging across the seafloor or traps placed on or adjacent to coral communities result in damage to marine life including hard and soft corals; trap rope damage in the marine environment is obvious to anyone looking.
- Prioritize law enforcement patrols around white-crowned pigeon nesting islands during lobster mini-season (peak of bird nesting), especially in eastern GWHNWR.
- Create an 8km square sea turtle protection zone closed to any commercial fishing or treasure salvage activities approximately 3 km due west of the Marquesas Keys, at the eastern end of the Eastern Quicksands, at 3-5 m depth [commenter provided map and coordinates] because:
  - it is the first known foraging ground for adult and sub-adult green turtles in the Atlantic or GOM waters of the USA;
  - based on 10 years of data, it is a very important foraging ground/habitat for green turtle populations from several rookeries throughout the Caribbean and USA;
  - There are not very many user groups that have a vested interest in this proposed area.

During 41 days of transects conducted west of the Marquesas Keys since 2002, Inwater Research Group Inc. (a non-profit) sighted 1387 green turtles on this foraging ground, with some days exceeding over 200 sightings (commenter provided figure).

[Sea turtle protection zone coordinates]

NW 24.5873, -82.26112

NE 24.5873, -82.1821

SW 24.51548, -82.26112

SE 24.51548, -82.1821

- NOAA and USFWS should require owners of anchored vessels to purchase and maintain proper mooring systems in designated areas along the Keys via a permit system:
  - there are places throughout the sanctuary where vessels are anchored indefinitely for living and/or personal storage, without DEP permits or proper moorings;
  - permanently anchored vessels cause damages that violate sanctuary regulation 922.163(a)(3) prohibiting alteration of the seabed;
  - permanently anchored vessels cause damages in large areas of living marine resources: long lengths of anchor chain scour the sea bottom and/or destroys all living organisms where the tackle placement rests; irresponsible vessel owners throw debris such as engine blocks, bricks and heavy iron objects and anchors that can annihilate all living organisms in its path; discharges, shading and garbage;
  - Permanent anchorages can be visible from shore;
  - vessels break free dragging improperly set anchors and chain that damage resources along their path, ultimately landing in shallow water, with most then abandoned by the owners.
  - vessel owners using sanctuary (public) resources for their own personal benefit need to be regulated so as not to produce a user conflict;
  - free permits will not take away the ability to anchor, but will ensure use of proper mooring and thereby resource protection;

- permits should establish mooring zones where there will be minimal impacts to resources, establish a minimum distance from shore, appropriate mooring for the size of vessel, appropriate land fall and pump-out requirements;
- proper mooring fields will increase user safety while protecting sanctuary resources;
- evaluate each permit annually.
- "Increase Pole and Troll Only and idle speed zones for protection of habitat and wildlife"
- Instead of closing half of Woman Key (current practice), close all of Boca Grande and open Woman Key. Woman Key has been irreparably changed by sea level rise so let the public have full access to it in exchange for protecting sensitive wildlife and habitats at Boca Grande. However, access to Woman is difficult due to shallow flats.
- Keep Sawyer Key protection as is (tidal creeks on south side closed) – this is an important ecosystem unit for a variety of species.
- Keep Wilma Key closed because of the high numbers of birds and diversity of species still using it.
- Protect Wilderness values in the Marquesas - do not permit commercial tours, including kayak tours.
- Keep Boca Grande open for visitors to prevent pushing pressure to the Marquesas.
- Do not allow commercial tour permits in the Marquesas Keys area; leave it for the general public to enjoy its wilderness setting. Large tour groups negatively impact wilderness values of solitude and untrammelled characteristics.
- Use special use permits for all access to the Marquesas area to limit the type and quantity of commercial use in the Marquesas area so that it retains its untrammelled characteristics.
- Regulations and permits can be based on nesting seasons – seasonal closures.
- The purpose is to protect wildlife from disturbance, not discriminate against certain vessel types, so be careful with single-user exclusion areas and close areas to everyone, not just kayaks and/or PWC.
- "Would like to see jet skis and jet boats allowed to go out to Boca Grande Key and Snipe Key. Less restrictions."
- "Reopen sand bar (aka Bruce Key) across from Boca Grande. It was closed for nesting Roseate Turns but now it is always awash. Remove vessel exclusion buoys."
- "Reestablish the natural tidal flows around the islands (e.g. Riviera canal to Garrison Bight, Big Pine canals)"
- "Expand the sanctuary to include continental shelves and slopes (e.g. deep reefs)"
- "Use of sunscreen, especially on dive boats, should be limited."
- "There should be some protection of shallow water habitat from fishing."
- "Mandatory and meaningful navigation training before people rent private boats. Training would protect seagrass flats and other resources. Have train-the-trainers and require certification of boat rental staff. "
- "Expand (make longer) the no wake zones."
- Need better markings to Catrell Key. Want signs, posting on the internet, etc. to protect brown pelicans so people can know. Want local knowledge signs regarding the draft at entrance to Lakes Passage.
- Have more fish-friendly types of fishing like barbless hooks.
- The FWC requests the FKNMS consider the need for increased manatee protection, including the need to establish regulations on vessel operations in the Upper Keys to reduce the risks of manatee injuries and deaths, as well as damage caused by vessels to manatee foraging habitat.
- Comments have been made that possible closures to areas such as Snipes Point and Mudd Keys will be part of the upcoming regulations. Further restricting access to such areas is a matter that will directly affect area residents who live in and have to transit through the sanctuary by boat. NOAA should document and provide for review exactly what changes to current rules it is proposing.
- NOAA and USFWS should keep sandbars open to boaters, such as at Boca Grande.

- NOAA and USFWS should not close Marvin Key to boaters as it is enjoyed by many local residents and if it is closed, a new spot will develop.
- Temporal closures should be studied to a much further extent before being approved.
- "Where possible restrictive zoning should be made temporal to have the greatest positive effect on the resource while the least negative impact on the user groups."
- "No temporal closures, the sanctuary needs to allow fisheries management to regulate fisheries, they have public participation and input, something this circumvents, removing the public's and users' rights to the resource."
- Consider having temporal marine zones to reduce stress on the reefs from concentrated human activities. For example, close Rock Key SPA from all activities for two years, while keeping Eastern Dry Rocks SPA open. After the two years, reopen Rock Key SPA and close down Eastern Dry Rocks SPA from any human activities.... or something like that. The temporal scale can be seasonal and/or conditional.
- Permanent area closures transfers the effort to other areas (closures don't accomplish purpose). Temporal closures better.
- NOAA and USFWS should not allow commercial use of Woman Key, Boca Grande, or Ballast Key.
- Open a beach area such as Woman Key or one of the other non-sensitive islands to the high water mark for commercial and public use like they do in St Croix (Buck Island) to give visitors the chance to responsibly use/experience and learn about our resources through guided tours onto the beaches of the outer islands. They are just as much a resource for visitors as for locals to use.

### **Kayaks**

- Commercial kayaking should only be allowed/promoted at Mule and Archer Keys (KWNWR); exclude them from everywhere else, especially Cottrell.
- "The paddle movement on kayaks is bad for birds. Kayaks visit roosts over and over again and disturb birds by approaching too close. Need buffer."
- "With commercial kayak tours, group size is the issue. Large groups are severely impactful to wildlife and to other visitors' wilderness experience."
- Limit the size and number of kayak groups per island through permit as an alternative to prohibiting commercial kayak tours.
- Kayaks typically promote refuge purposes, and are typically promoted as "green" vessels (PWC operators use similar arguments). It will be hard to change this paradigm within the public. Since the refuge doesn't want to alienate this group, but must do what is right for wildlife, it should promote the refuge as a resource, but one that needs to be protected.
- Although kayaks and newer jet skis are considered "green" since they minimize noise and pollution, the issue of accessing sensitive areas that larger motor boats cannot and approaching too close to wildlife still remains.
- Kayaks can get to many sensitive areas because they can go in such low water across tidal flats where wading birds forage and travel through mangroves where birds nest.
- Conduct monitoring to document the impact from commercial kayak tours and private kayak use.
- A cap on how many kayakers can be out on a tour – 6 or 7 at a time in the wildlife refuges.
- Increase support of kayaking activities throughout the Keys, such as launch sites and campsites, and work with the Florida Paddling Trail.

### **Personal Watercraft**

- PWC are more than capable of operating in a refuge environment without disturbing wildlife; indeed, PWC are some of the most environmentally friendly craft built and are some of the quietest, lowest emission, boats ever produced. This fact, combined with the current 100' buffers for all boats is more than sufficient to protect bird colonies and other natural resources.
- A 2007 letter from Florida Fish and Wildlife Conservation Commissioner R. Kipp Erhlich (Section Leader, Imperiled Species Management Section) to Hopping Green & Sams, and a 1999 letter from David Arnold (Bureau of Protected Species Management, Florida Department of

Environmental Protection) to Congressman Weldon both stated that there have been no manatee deaths attributed to PWC.

- The 2000 FWC study “Buffer Zone Distances to Protect Foraging and Loafing Waterbirds from Disturbance by Personal Watercraft in Florida” exposed 39 species of waterbirds to the rapid approach of PWC and an outboard powered boat to determine the flushing distances of these two watercraft and found that only one species exhibited significantly larger flush distances to the approach of PWC, whereas five species exhibited significantly larger flush distances to the approach of the outboard powered boat. Eleven species exhibited no differences in flush distance between the PWC and outboard powered boat. This data suggests that a uniform buffer zone should be established for both PWC and outboard powered vessels.
- A 1998 sworn affidavit of Dr. James Rodger (Wildlife Biologist for the State of Florida) concludes that buffer zones are sufficient to protect wading bird colonies from human disturbance, whether it be on foot, vehicle, or boat.
- A 1997 Continental Shelf Associates study, “Effects of PWC on Shallow Water Seagrass Communities in the Florida Keys” shows that PWC have no effect on seagrass when operated in depths of 2 feet or more, as recommended by the manufacturers.
- "Horseshoe Key – Delete? 1992 Plan identified as 'no access' but given jet ski prohibition throughout refuge, such a buffer is not needed. But if jet ski prohibition is removed, then keep 'no access' buffer as is."
- The idle speed zones in tidal creeks at East Content Keys, West Content Key, Lower Harbor Keys, and Cayo Agua Keys were meant to reduce impacts of jet skis, but are not needed with the refuge-wide jet ski prohibition. However, if the jet ski prohibition is removed, keep the "no access" buffer as is. Not a wildlife issue, but a public use conflict issue.
- "Marvin Key – Delete? Hurricane Georges damaged/alterd the flat so no longer important area for wildlife (wading birds). Also originally meant to reduce impacts of jet skis, but given jet ski prohibition throughout refuge, such a buffer is not needed. No longer a wildlife issue, but possibly public use conflict issue...."
- Although kayaks and newer jet skis are considered “green” since they minimize noise and pollution, the issue of accessing sensitive areas that larger motor boats cannot and approaching too close to wildlife still remains.
- Jet skis affect a relatively small area and are not necessarily a bird issue around Key West itself; the real issue is when they go to interior refuge areas and cross tidal flats or enter tidal creeks or buzz around nesting islands.
- Maintain the refuge-wide closure to jet skis, hovercraft, airboats, etc. (status quo) because if areas are opened up the jet ski pressure will move to more sensitive areas.
- Jet ski operators and tour guides should have GPS maps with zones clearly marked.
- "Concerned about “bird flushing” by PWC around mangrove areas. See the benefit of keeping existing rules."
- "Any vessel can cause “bird flushing” and I am for protecting nature, but if laws will be changed for PWC then they should be changed for boats."
- Wave runners shouldn't be allowed in backcountry because they scare fish out of flats. User conflict.
- Limited “water trails” for snorkelers and PWCs so that sensitive areas are not impacted. (i.e. U.S. Virgin Islands, Buck Island National Monument)
- PWCs need to be further away (offshore) from beaches.
- Permitting the operation of PWC in areas that currently prohibit their usage would result in negative impacts to a vital sanctuary for migratory birds. FKNMS provides nesting habitat and feeding areas for more than 250 avian species on the Lower Keys refuges. Management Agreement for Submerged Lands within Boundaries of the Key West and Great Heron National Wildlife Refuges, Part I, at 5 (Nov. 17, 1992). Allowing PWC such as jet-skis in sensitive shallow water areas disrupts a major migratory bird refuge in many ways.
- The noise resulting from the introduction of PWC in bird roosting areas may disrupt bird populations. Many migratory birds are easily stressed and particularly vulnerable during

migration. Birds will typically flee from loud noises and any needless expenditure of energy can harm a feeding or resting bird. Bird roosting areas are especially vulnerable to noise from PWC. Nesting birds may fly from the nest leaving unprotected eggs and hatchlings exposed to the sun's heat or predators.

- The expansion of areas permitting PWCs conflicts with the mandate of FKNMS. Per the current management agreement, "Key West NWR was established by Executive Order 923 in 1908 and is one of the oldest refuges in the United States. It was created as "a preserve and breeding ground for native birds and other wildlife." Id. at 2. The Agreement goes on to say that the "Great White Heron NWR was established by Executive Order 7993 in 1938, with additional islands acquired under the Migratory Bird Conservation Act (16 U.S.C., S. 715). This refuge was created to provide an "...inviolable sanctuary, or for any other management purpose, for migratory birds." Id. Therefore, consenting to PWC operation in the proximity of bird roosting areas is inconsistent with the mandate of the FKNMS.
- NOAA should establish a boundary along US 1 (the most enforceable and sensible boundary) to keep jet skis away from flats fishermen: no jet skis north of US 1 and no jet skis west of Key West in an area known as "the lakes." NOAA is concerned about preserving historical uses of the Keys resources and flats fishing is one such use, while jet skis are not and the two cannot co-exist in the same area. You can ride a jet ski anywhere—you can only flats fish on the flats. NOAA should do everything possible to maintain the image of world class flats fishing with the global fishing community, which
- NOAA and USFWS should not consider a larger area for PWC because: the agencies are not able to enforce what they have now; PWC disrupt wildlife and sport fishing; PWC frequently violate areas where they are not permitted. Google earth aerial views of Boca Grande are heart breaking.
- Exclude PWCs at No Name Key and include area in Great White Heron Refuge. [comment includes map – see regs.gov document NOAA-NOS-2012-0061-0172]
- "Extend PWC access to upper areas in Windy." [commenter provided map, see regs.gov document NOAA-NOS-2012-0061-0201]

## **Turtles**

- Instead of closing the southern half of Boca Grand beach year-round (current practice), close the entire beach during the turtle-nesting season and open all of it when turtles are not nesting.
- There should be a seven mile by seven mile area west of the Marques keys in the quick sands for adult green sea turtles, designated as protected foraging area.

## **Wildlife Management Areas**

- NOAA should address the following issues with respect to WMA's:
  - Are current WMA's still appropriate?
  - Are new WMA's needed?
  - Consider adaptive management that would allow for timely regulatory changes, as wildlife and habitat that WMA's seek to protect are highly dynamic.
  - Replace missing buoys in a more timely manner.
  - Consider implementing a "no anchoring" and/or "must remain in vessel" policy to eliminate the growing "social gathering" problem within some shallow water WMAs (i.e., Tavernier Key and Rodriguez Key).
  - Lack of enforcement of the non-combustion rule in natural channels within non-combustion WMA's (e.g., in the east and south sides of Cotton Key combustion motors are now allowed to be operated through these channels when this used to be enforced as non-combustion - this entire network of channels is within the WMA and used to be, but no longer is an extremely productive bonefish flat).
  - Consider managing all WMA's as "non-extractive" zones.
- WMA's should be more flexible and moveable to reflect wildlife migrations or movements and habitat use or non-use over time. Need increased monitoring to see if they are fulfilling their intended purpose.

- The need to be able to modify or add new WMAs as applicable so these areas could best serve their function as vital wildlife habitat in the constantly changing shallow water areas of the Keys was noted in 2003 (article in Saltwater Fly Fishing magazine), yet ten years later we are still waiting for this to happen. Meanwhile, new wildlife threats have arisen and current WMAs have changed dramatically.
- Address problems with the current no combustion engine rule to prevent damage at Rodriguez and Tavernier WMAs: there are enforcement issues; and the rule not does address problems from large numbers of people anchoring, trampling the resources, and littering.
- Consider WMAs in Card Sound Aquatic Preserve along the shoreline (specifically the southern base of card sound bridge):
  - heavy boating traffic could be impacting bird nesting and roosting;
  - This area became popular several years ago when jet skis were prohibited from Biscayne National Park, and has remained extremely used over the years.
- Consider establishing WMAs to protect shallow bank systems (Channel bank, Moser bank and bamboo bank systems) in the middle keys on the Gulf side because NOAA Fisheries scientists, John Burke and other scientists have studied them in recent years and recommended more protection for a number of reasons:
  - they have been likened to coral reefs in that they support many of the same fish in different life stages (as they grow large and move from the bay to the reef);
  - channels associated with them are important too;
  - they are well defined for experienced boaters, but in high water can be harder to see and have suffered boating impacts;
  - They can be impacted by fishing gear during storms, etc.
- Over 15 years ago commenter worked with the Marathon Guides Association to set up two new WMAs in the Marathon area in places in severe need of resource protection, with the support of offshore charter-boat captains who depended on catching bait in these areas. Despite getting approval from Monroe County, the City of Marathon and the City of Key Colony Beach for these two WMAs, they have yet to be implemented. Since proposing them there have been dramatic declines in usage of these flats game fish due to boat traffic, which has only increased as the years have gone by. Similarly, the Lower Keys Guides Association raised concerns about jet skis within the Boca Chica Beach area in one of the ERs, but has been waiting ten years for management changes for this area. Also, the charter dive industry brought up the idea of resource protection for Snapper Ledge years ago after observation that it was The sanctuary needs more tools to address issues such as this quickly, and not have a one size fits all system for all sanctuaries that may work in one, but not another.
- The two Marathon Guides Association proposed WMAs suggested about 15 years ago were developed with a lot of footwork, workshops and user input, and reflect a compromise that would make the areas idle speed areas so offshore fishermen can access the areas in question to catch bait for fishing charters, while this would still stop high speed runs across the shallow water. They included the grass notch bank that opens into Vaca Cut Channel off of Marathon and Key Colony Beach – this area is a choke point area used by many commercial boats as well as party fishing boats, and recreational boats and is a spot waiting for an accident to happen as boats make the turn into the channel and enter through that gap at high speeds, turning by boats using the channel. All access channels through the area are marked and should be allowed to be used in this area. The area of the flat off the Boot Key Channel should also be included in this WMA. [Commenter provided maps with coordinates and additional specs. for the two proposed WMAs.]
- Include Wilma Key (if still closed/regulated by USFWS) in sanctuary regulations as a WMA.
- There is a pressing need to address threats and impacts to WMAs in a more timely and efficient manner than how we are addressing them under current guidelines and regulations.
- Update Wildlife Management Areas to account for changes in bird nesting/roosting areas since establishment. Make them more flexible because wildlife comes and goes. New sandbars/islands (e.g. Bruce Key/Wilma Key near Boca Grande Key) should be automatically closed to human use by USFWS when they appear because they are precisely what some birds need for resting and breeding.

- Enhance enforcement on commercial use in the backcountry, specifically the wildlife management areas. Do not dissolve the existing wildlife management areas.
- Need of a wildlife management area to be set up off the old sea plane base. Refer to input from the Lower Keys Guides Association.
- Designate Demolition Key as a WMA and create a "no access" buffer on the flats side of it because it is an important island that includes great white heron nests and frigatebirds, and commenter is concerned about disturbance by PWC. [commenter provided map]
- NOAA and USFWS should establish Wildlife Management Areas from the Middle Keys throughout all the Keys to the Key West area, with input from local fishing guides, fishermen and others, through public workshops or working groups for their knowledge and use of areas.