



# A Case Study: Florida Keys National Marine Sanctuary And Update on the Sanctuary Nomination Process

## Presentation to: Our Florida Reefs Program

August 20, 2014  
NOVA Southeastern University  
Dania Beach, Florida

Billy D. Causey, Ph.D.  
Southeast Regional Director  
NOAA's Office of National Marine Sanctuaries



# Organization



**Department of Commerce**

**National Oceanic and Atmospheric Administration**

**National Ocean Service**

**Office of National Marine Sanctuaries**







# Our National Marine Sanctuaries



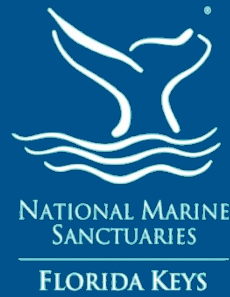
● National Marine Sanctuary

★ Marine National Monument





# Marine Protected Areas



## Definition of a Marine Protected Area:

**Defined by the IUCN (The World Conservation Union) as:**

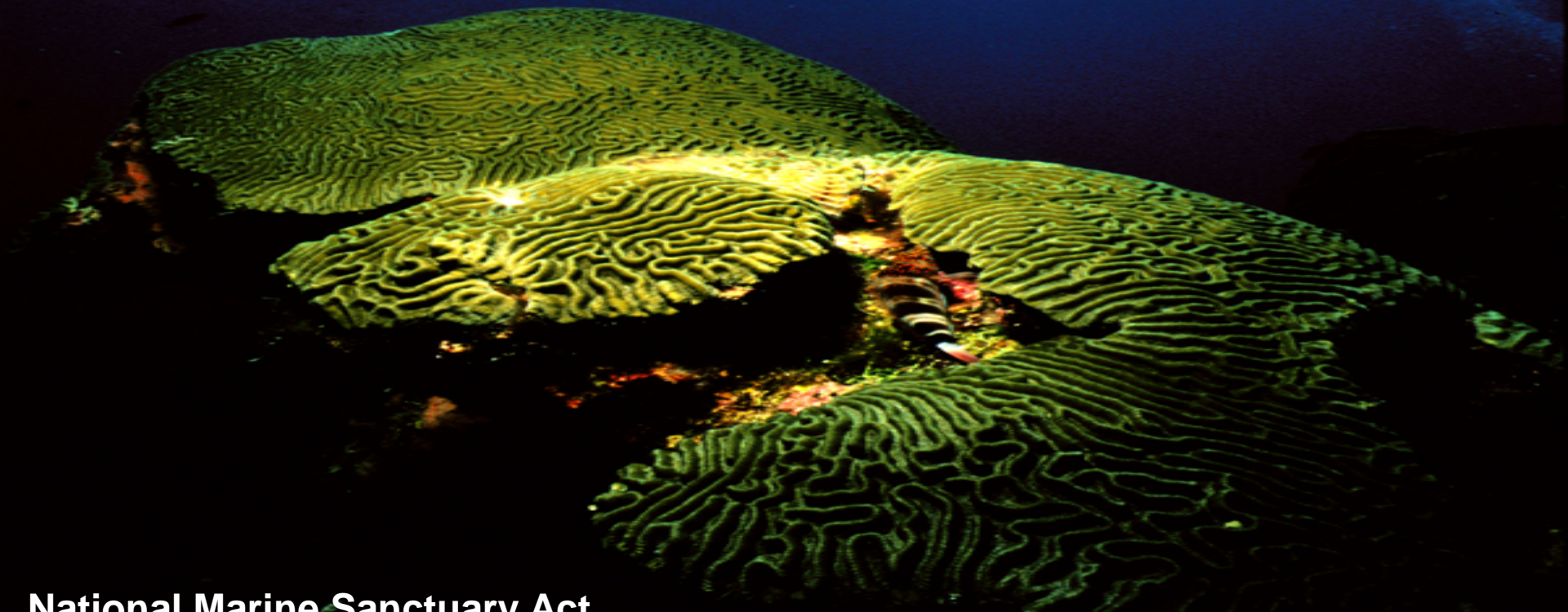
**"any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment."**

**Reference: Guidelines for Establishing Marine Protected Areas**  
**(Kelleher/Kenchington, 1991)**



# What are National Marine Sanctuaries?

*“Areas of the marine environment with special conservation, recreational, ecological, historical, cultural, archeological, or esthetic qualities...”*



**National Marine Sanctuary Act  
(sec. 301)**

**Multiple-use Program**



# National Marine Sanctuaries Act

**“To maintain, restore, and enhance living resources ... and to facilitate to the extent possible all public and private uses of the resources of these marine areas.....”**





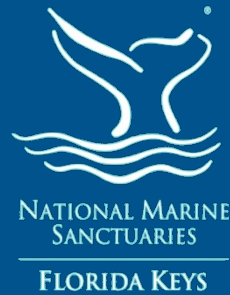
# The National Marine Sanctuaries Act Mandate

*“...to identify and designate as national marine sanctuaries areas of the marine environment which are of special national significance and to manage these areas as the National Marine Sanctuary System...”*





# National Marine Sanctuaries Act



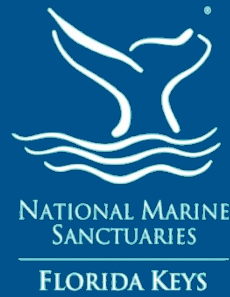
In the *National Marine Sanctuaries Act*  
(as amended in 2000) Congress found that:  
national marine sanctuaries managed as the National Marine  
Sanctuary System **will** –

- (A) **improve the conservation, understanding, management, and wise and sustainable use of marine resources;**
- (B) **enhance public awareness,** understanding, and **appreciation** of the marine environment; and
- (C) maintain for future generations the habitat, and the ecological services, of the natural assemblage of living resources that inhabit these areas.





# National Marine Sanctuaries Act



## *National Marine Sanctuaries Act (as amended in 2000)*

Among the “*Purposes and Policies*” of the Act - Congress directed the NMSS to:

(6) 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;



# NOAA Office of National Marine Sanctuaries

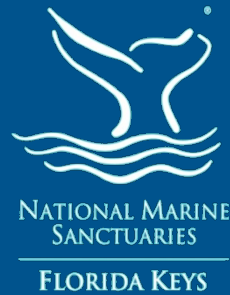
## ONMS Mission:

- To serve as the trustee for the nation's system of marine protected areas, and
- To conserve, protect, and enhance their biodiversity, ecological integrity and cultural legacy.

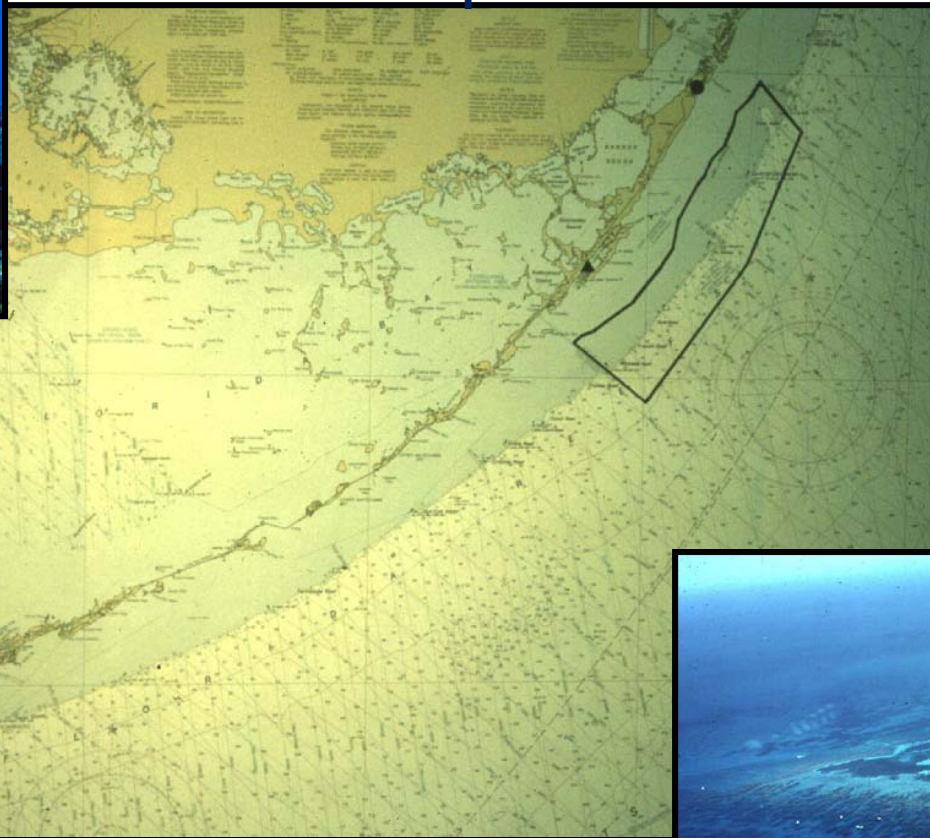




# National Marine Sanctuaries in the Florida Keys (1975 – 1990)



## Key Largo National Marine Sanctuary 353 square kilometers - Designated in 1975



## Looe Key National Marine Sanctuary 18 square kilometers - Designated in 1981





# SHIP GROUNDINGS



**M/V Alec Owen Maitland**

**Keys had 3 major ship  
groundings in 17 Days  
Oct-Nov 1989**



**M/V Mavro Vetranc**



**M/V Elpis**

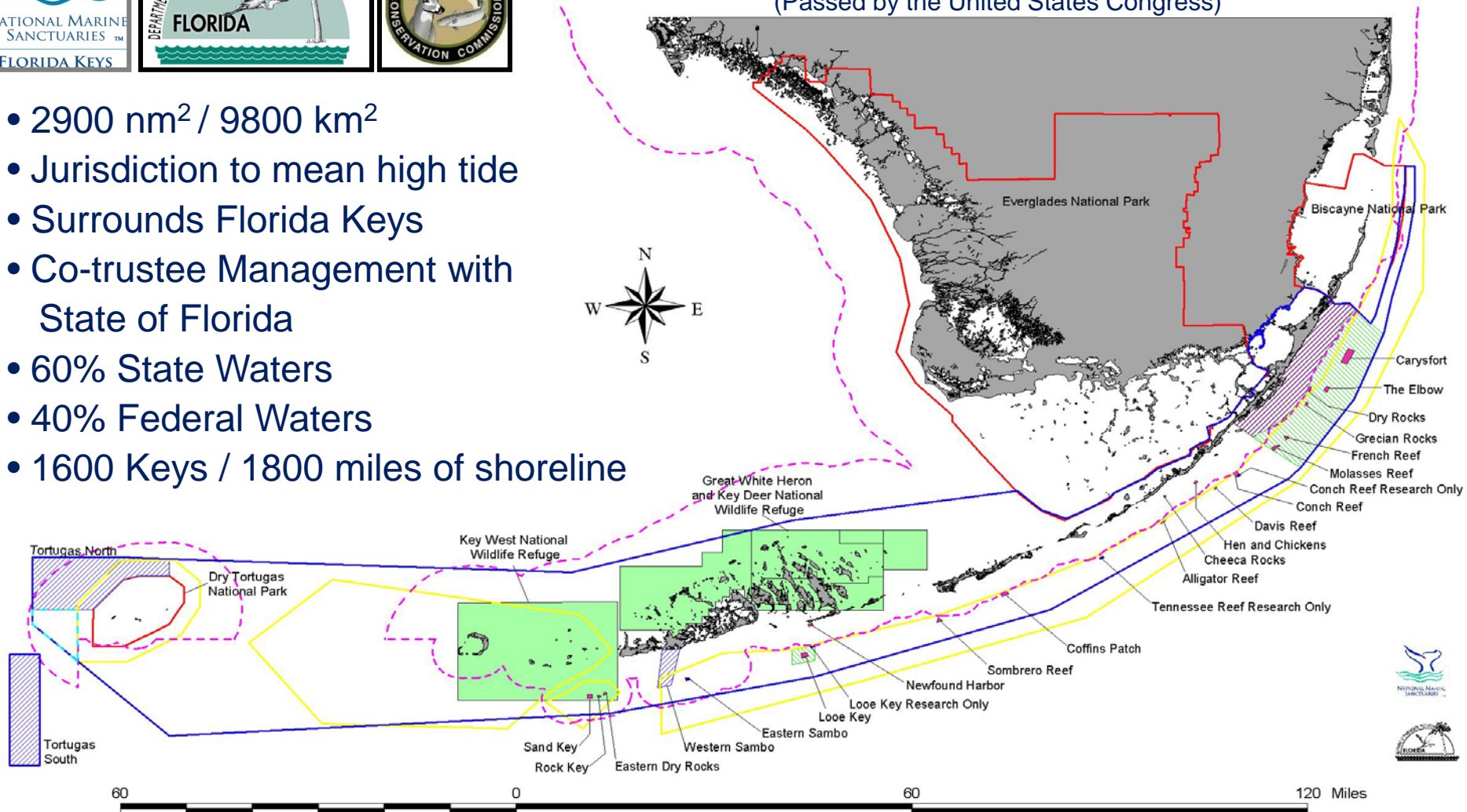


# Florida Keys National Marine Sanctuary



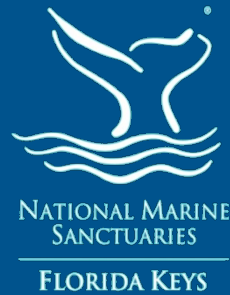
- 2900 nm<sup>2</sup> / 9800 km<sup>2</sup>
- Jurisdiction to mean high tide
- Surrounds Florida Keys
- Co-trustee Management with State of Florida
- 60% State Waters
- 40% Federal Waters
- 1600 Keys / 1800 miles of shoreline

## Florida Keys National Marine Sanctuary and Protection Act - 1990 (Passed by the United States Congress)





# Florida Keys National Marine Sanctuary, and Protection Act (1990)

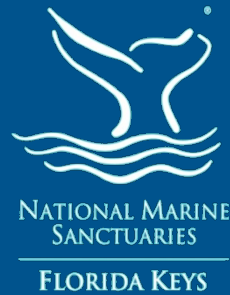


## **Contained a Number of “Firsts” for the National Marine Sanctuary Program**

- **Congressionally designated Sanctuary**
- **NMS to totally surround a community**
- **Have emphasis on Ecosystem management**
- **ATBA in the Sanctuary Regulations**
- **Water Quality Protection Program**
- **To create a Sanctuary Advisory Council**
- **To give specifics for management plan**
- **To give direction on interagency process**
- **Emphasis on marine zoning**
- **To incorporate existing Sanctuaries**



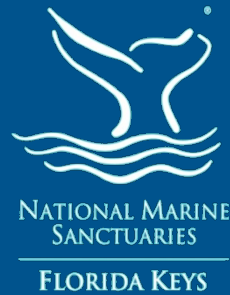
# Florida Keys National Marine Sanctuary, and Protection Act (1990)



- **Immediate forms of protection:**
  - **ATBA for ships longer than 50 m**
  - **No exploration for oil and minerals**
  - **Water Quality Protection Program (EPA/State/NOAA)**
- **Directed NOAA to develop an integrated Sanctuary management plan that should “Consider temporal and geographic zoning . . .”**
- **Act was specific about including the local state and federal agencies in the management planning process**



# Florida Keys National Marine Sanctuary, and Protection Act (1990)



## **US EPA - Authorized to Develop a Water Quality Protection Program (EPA, State, County, & NOAA)**

- **Authorized a high level Water Quality Steering Committee**
  - Chaired by Regional Director of EPA
  - Co-Chaired by the State - FDEP
- **Identify Problems and Take Corrective Actions**
- **Establish WQ, Coral and Seagrass Monitoring Programs**

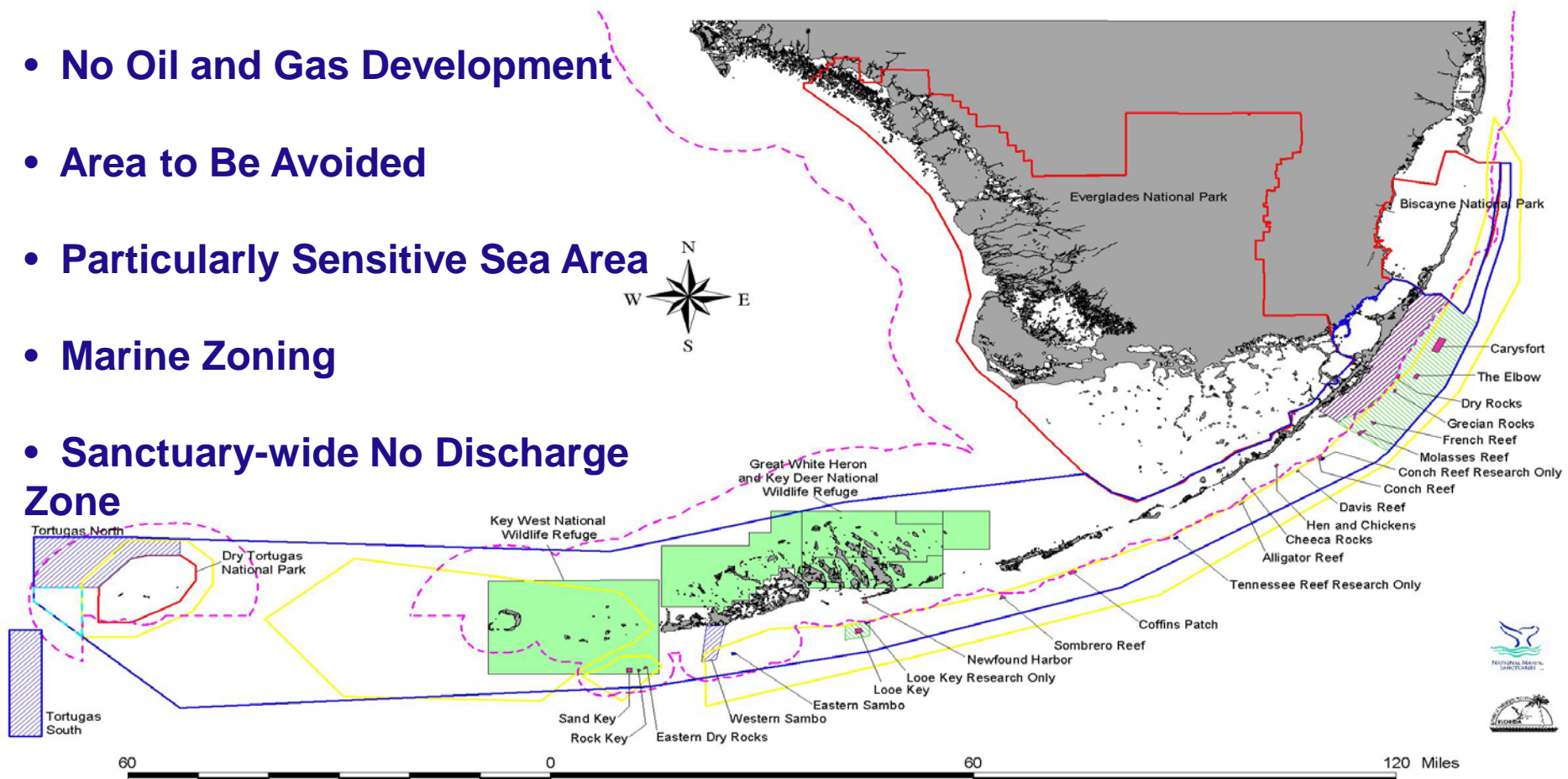




# Coastal Marine Spatial Planning and National Marine Sanctuaries

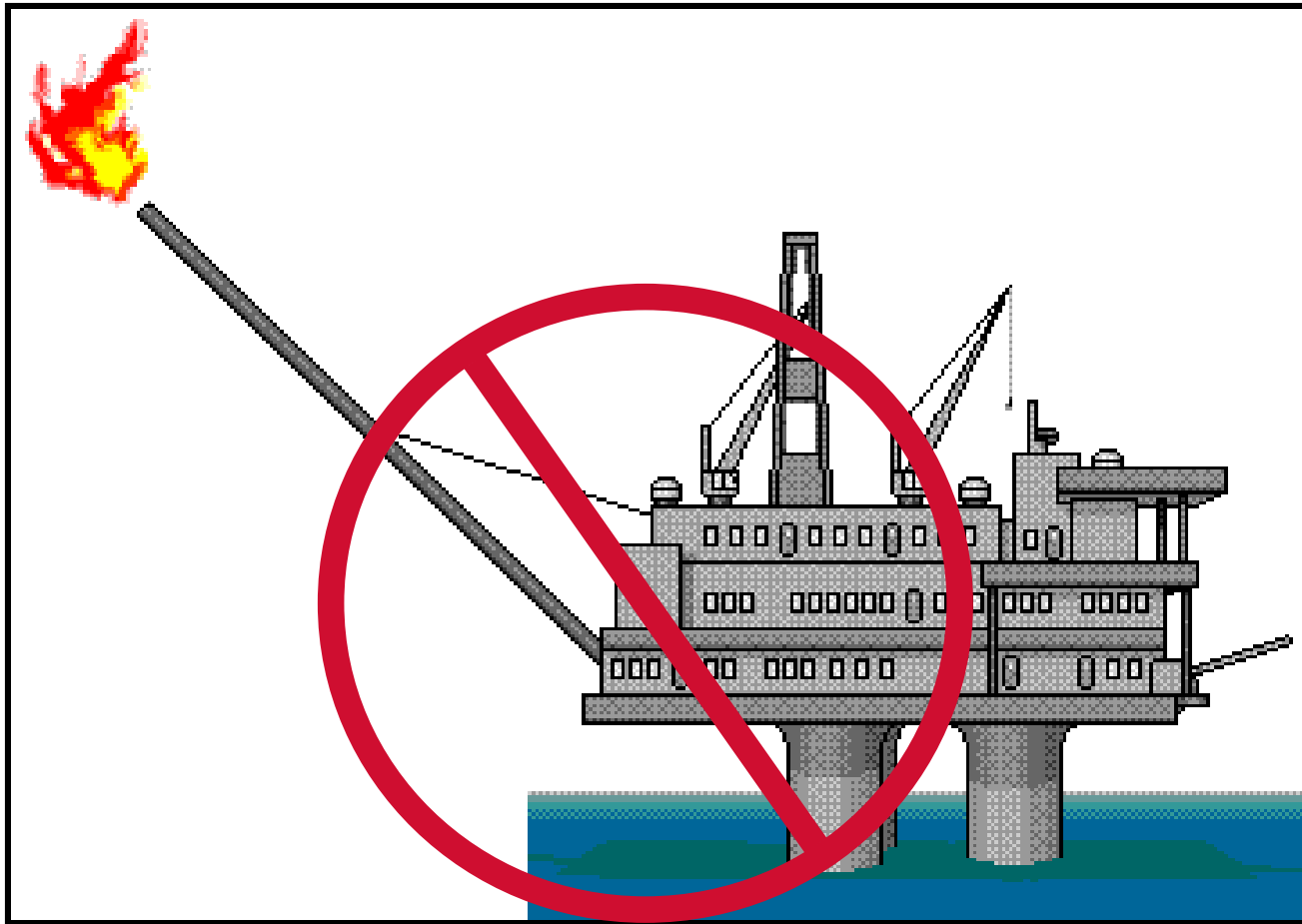
## CMSP Tools

- No Oil and Gas Development
- Area to Be Avoided
- Particularly Sensitive Sea Area
- Marine Zoning
- Sanctuary-wide No Discharge Zone



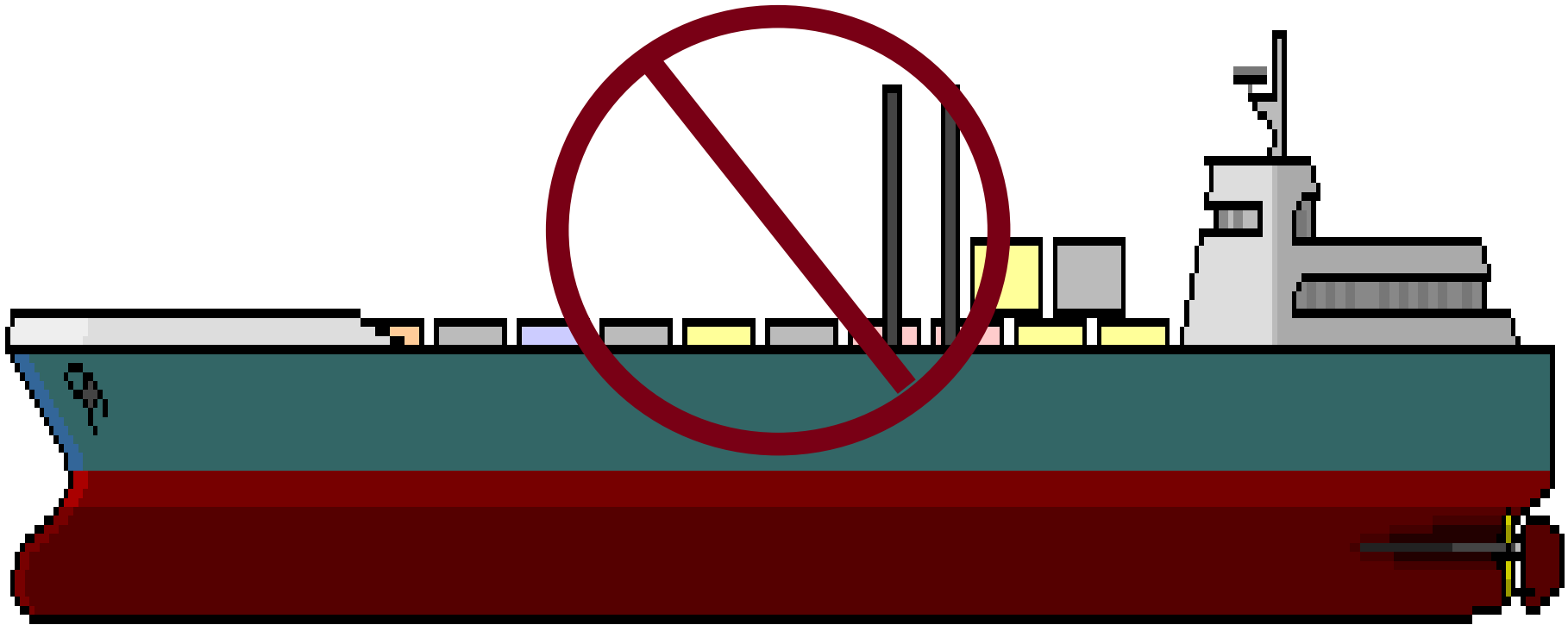
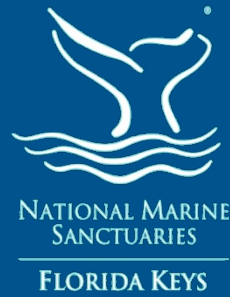


The FKNMS and Protection Act of 1990 placed a permanent ban on gas, oil, and hard mineral mining within the Sanctuary





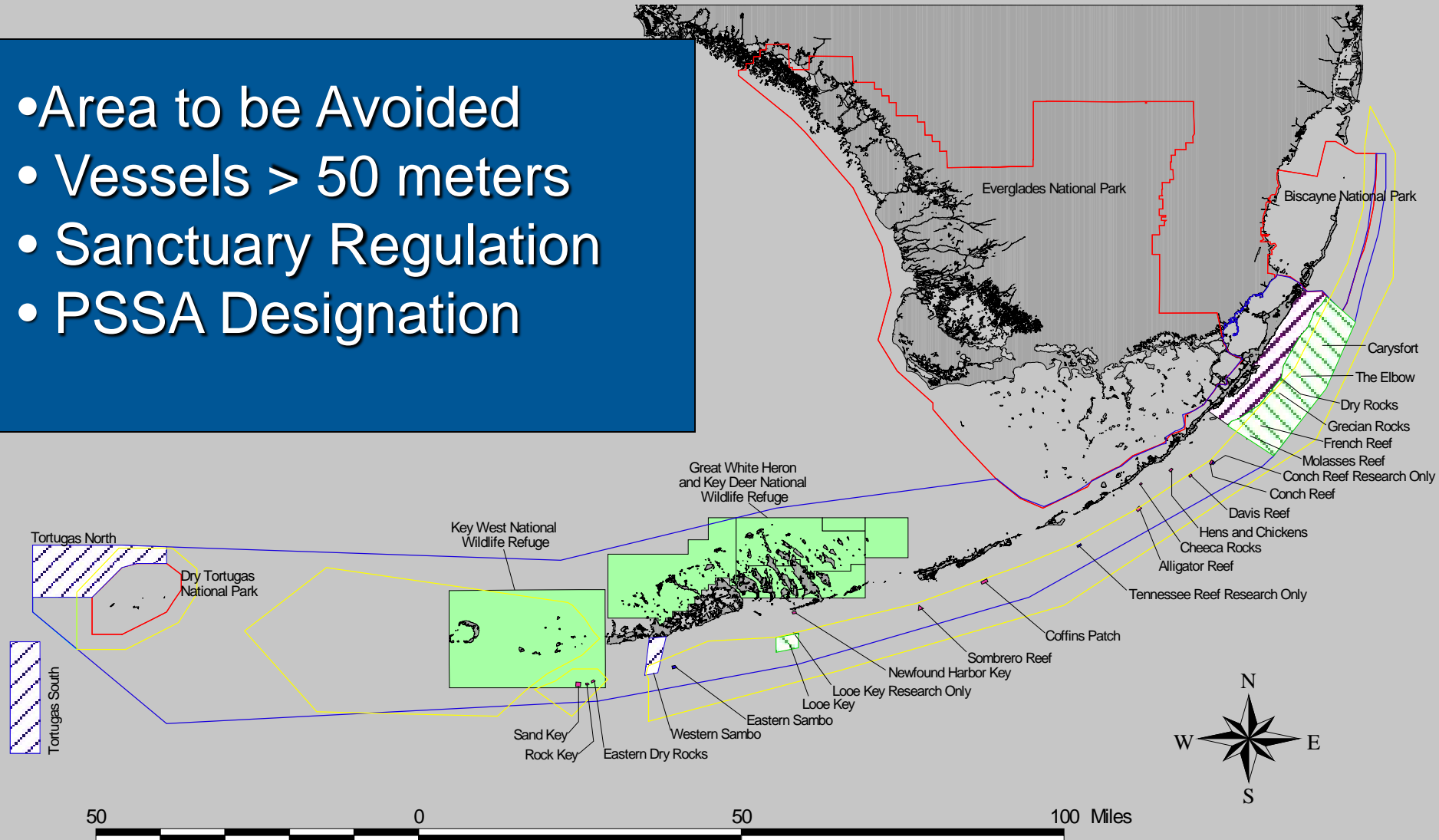
The FKNMS and Protection Act of 1990 prohibits ships greater than 50 meters (164 feet) from entering an “Area To Be Avoided” within Sanctuary boundaries





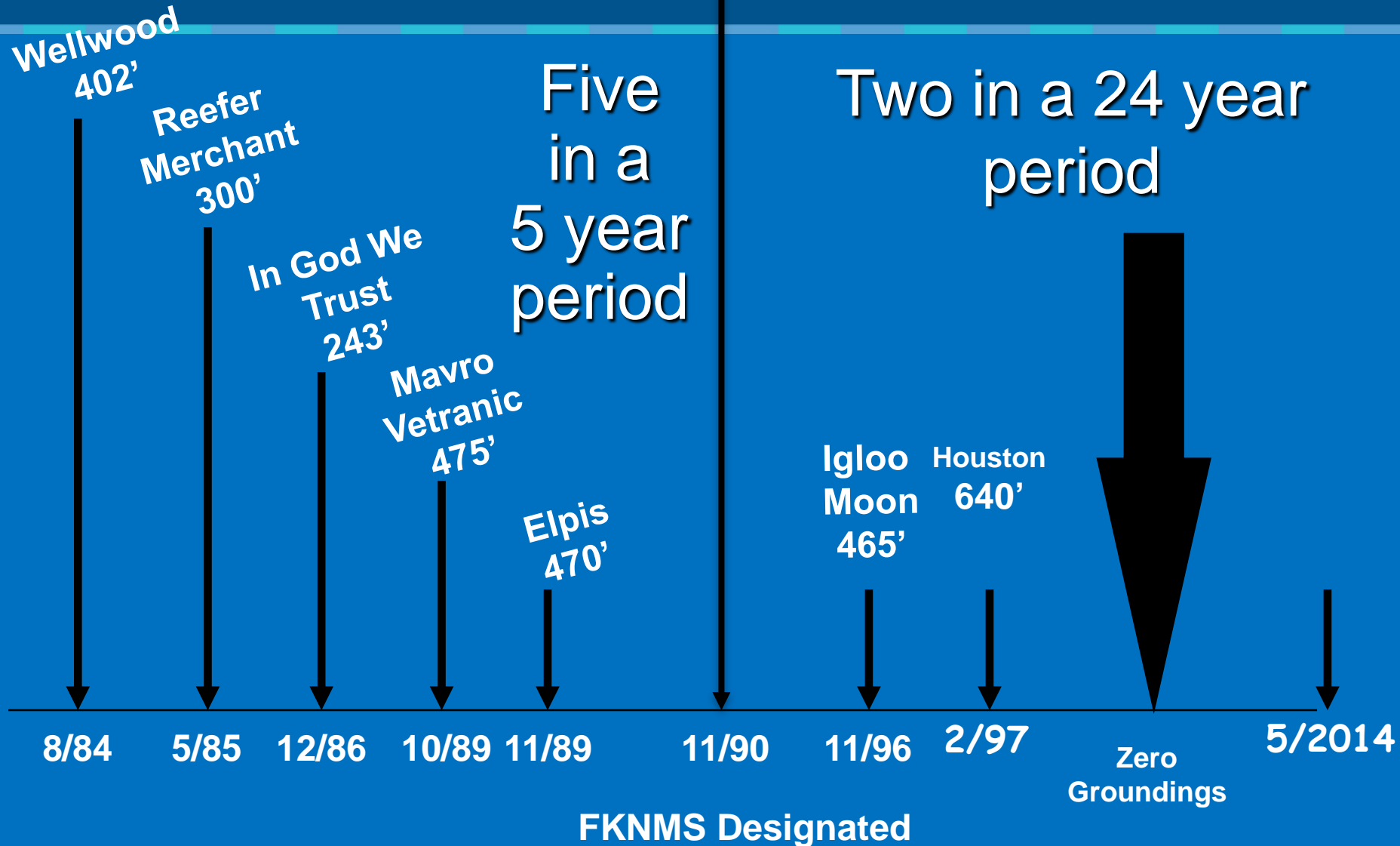
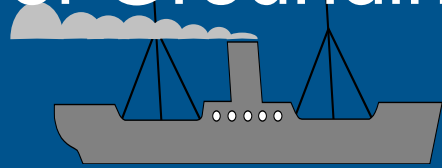
# International Maritime Organization Designated ATBA

- Area to be Avoided
- Vessels > 50 meters
- Sanctuary Regulation
- PSSA Designation



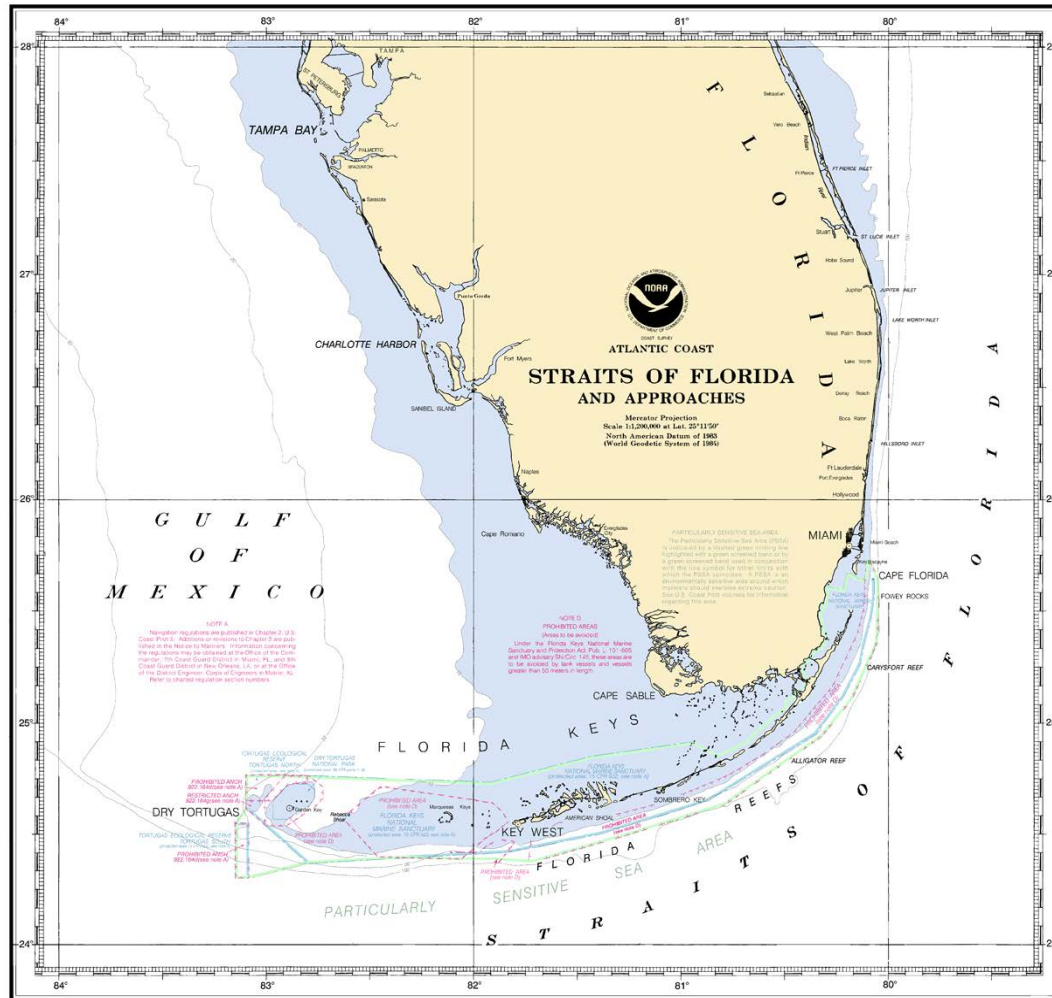


# Reef Groundings of Ships > 50 m In Length



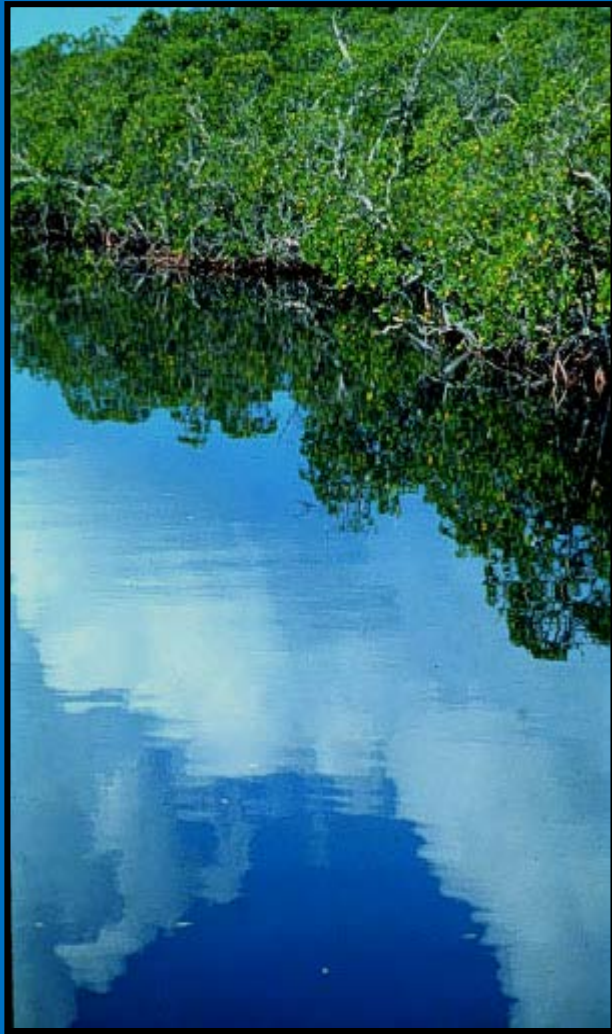


# Particularly Sensitive Sea Area - IMO Designation





# Coral Reef Ecosystem



**Includes the Full Seascape**



# Full-Range of Habitats







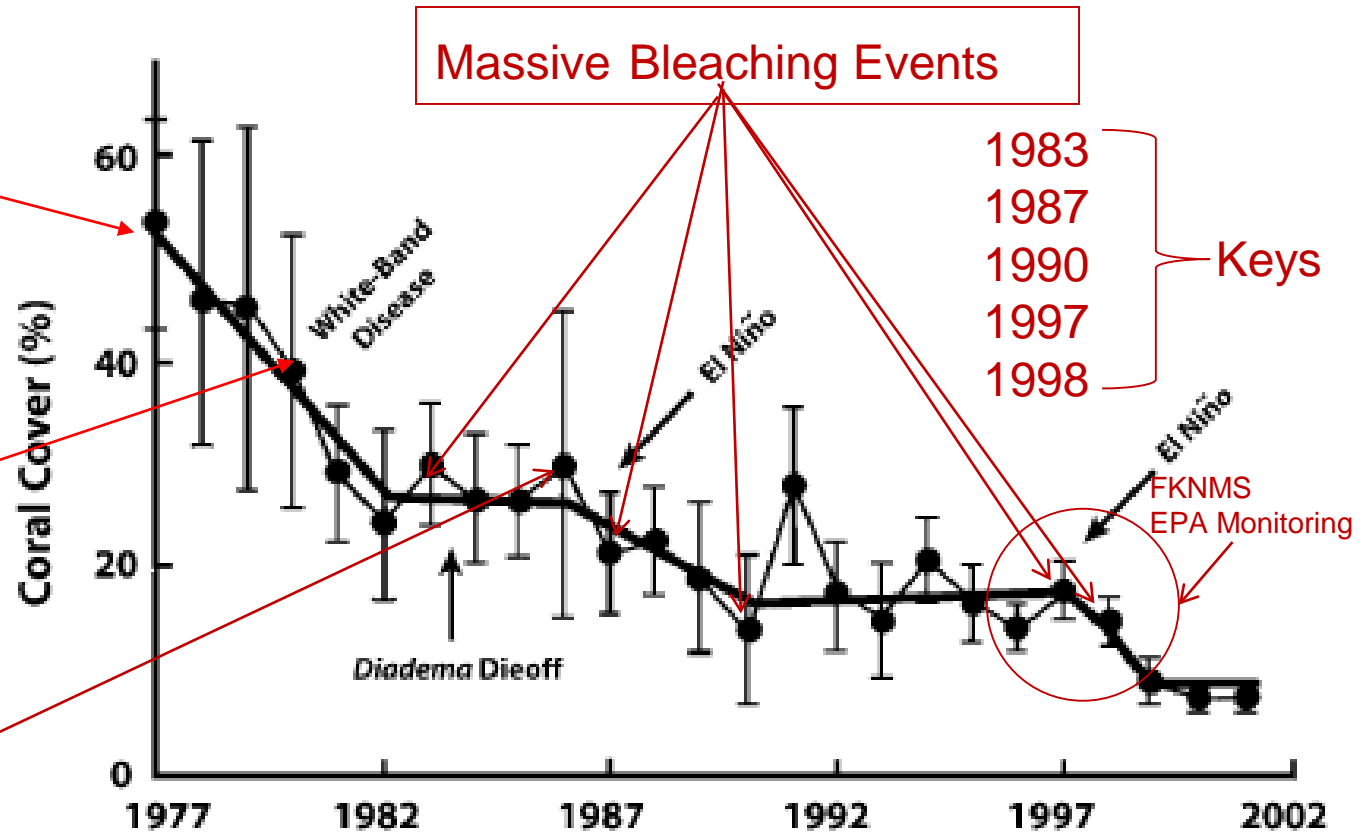
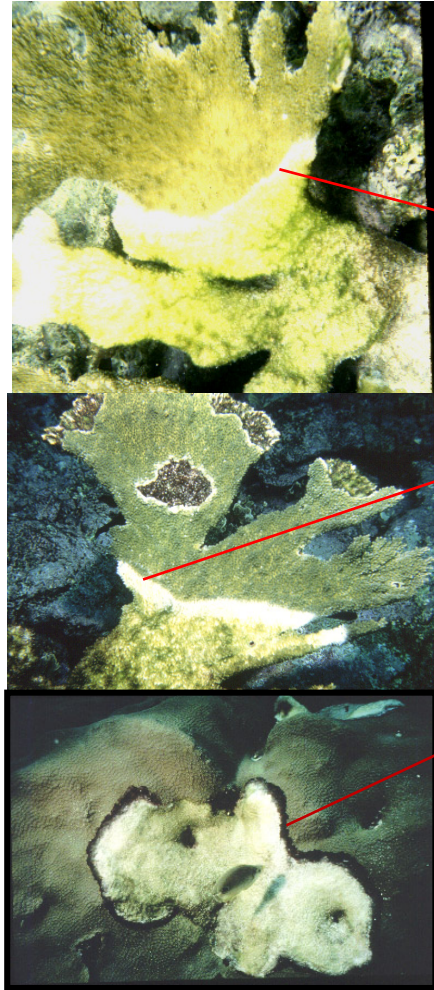
# Threats to Coral Reefs

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- Climate Change
- Land-based Sources of Pollution
- Habitat Loss and Degradation
- Overfishing



# Threats to Coral Reefs





# Multiple Stressors Affecting Coral Reefs

Habitat Destruction



Pollution



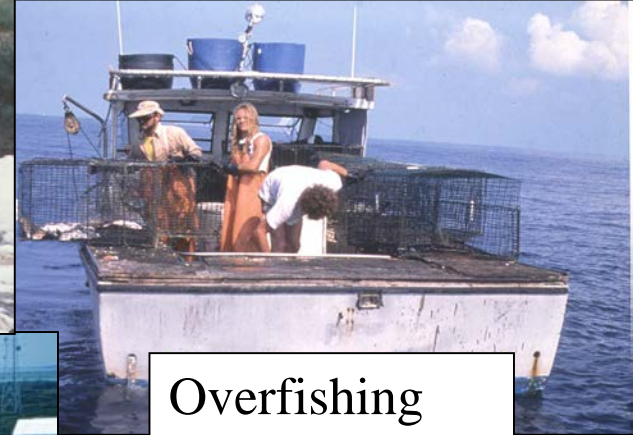
Coral Diseases



Coral Bleaching



Overfishing



Massive Algal Blooms



Intense Coastal Development



Ocean Dumping



Introduction of Marine Exotics



Global Climate Change



# Some Challenges We Face

- No single point of entry
- 26,461 registered vessels (2012)
- Diverse audiences
  - Residential/Tourist
  - Broad Geographic Audience
- Resource damage
  - Direct vs Indirect impacts
- Lack of Awareness





# Socioeconomic Characterization

The Environment  
and  
The Economy  
Are Inextricably Linked in the Florida  
Keys





# Tourism Based Economy

## Key Largo: Diving Capital of the World





# Tourism Based Economy

## Islamorada: Sportfishing Capital of the World



*Welcome to Bud N' Mary's Website*



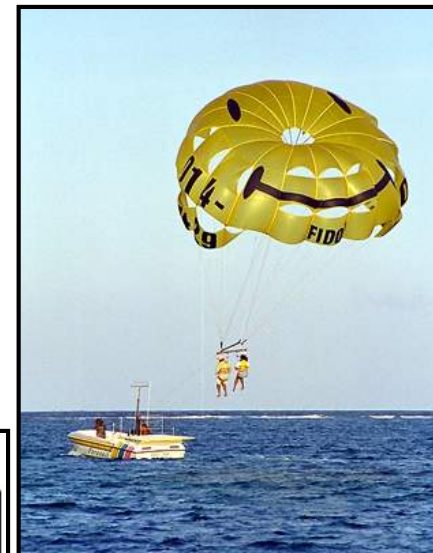


# Tourism Based Economy



**KEY WEST**  
*CHAMBER of COMMERCE*

**is where it all happens**





# Our marine environment is our economy...

- 739,000 people/yr diving & snorkeling - 2.8m days of diving





# Our marine environment is our economy...

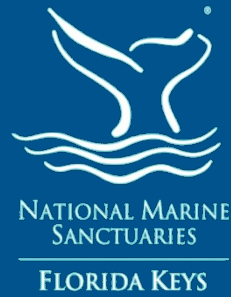
## Recreational Fishing

- 416,000 people/yr fishing – totaling 2.1m days fishing





# Our marine environment is our economy...

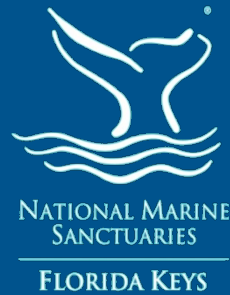


- 620,000 people/yr viewing wildlife – 2.7m days nature viewing





# Our marine environment is our economy...



## Cruiseship Landings Have Increased Dramatically Over the Past Two Decades



525 Cruiseship  
Landings in 2005  
In Key West

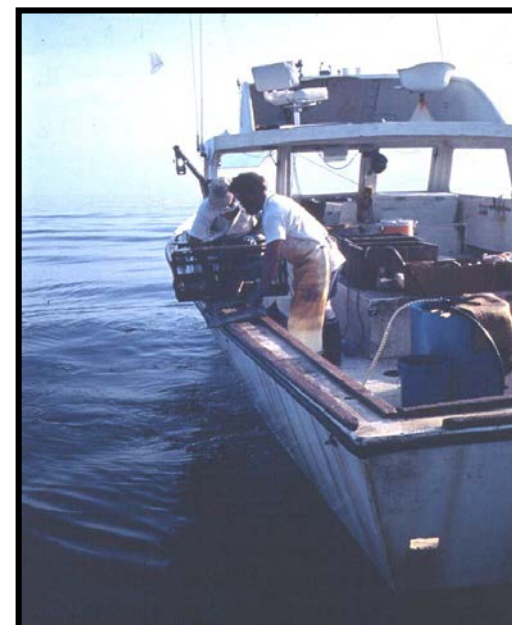
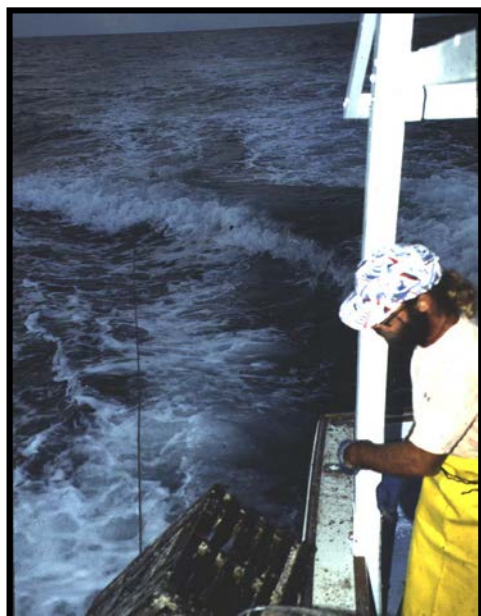
Fewer Landings in Recent Years



# Florida Keys Sanctuary means business...

## Commercial Fishing Second Largest Industry

- Shrimp, spiny lobster, stone crab and fin fish and marine life collection - \$100M income with 4,310 jobs
- \$50M/yr in commercial seafood landings in Key West





# 7.5 Million “Visitor Days” in Marine Recreation: Fishing, Diving, Snorkeling, Wildlife Viewing







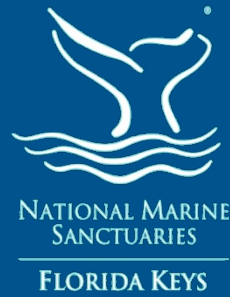
# What activities does the Sanctuary regulate to protect resources?

- Spearfishing
- Marine Life / Aquarium Collection
- Fishing / Trapping / Gear Type
- Personal Watercraft
- Airboats / Waterskiing
- Vessel Speed / Wake / Motor
- Vessel Size / groundings / prop scaring
- Anchoring / Mooring
- Impacts to Corals, Seagrass & Mangroves
- Access
- Diving / Snorkeling
- Discharges / Land / Vessels
- Bottom Disturbances





# Marine Zoning



## What is Marine Zoning?

**Zoning is the setting aside of areas for specific activities to balance commercial and recreational interests with the need for a sustainable ecosystem.”**

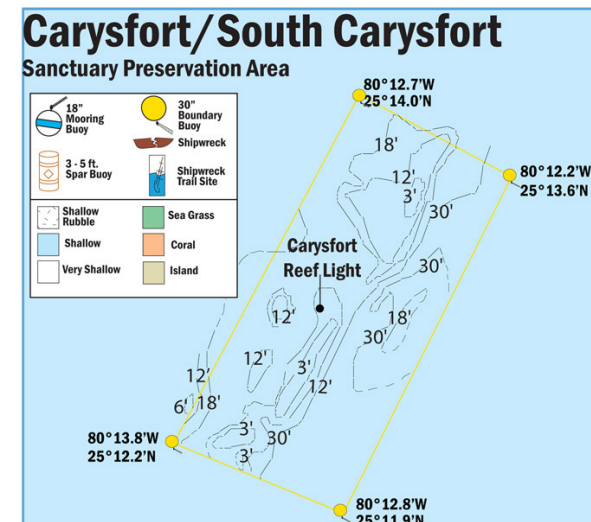
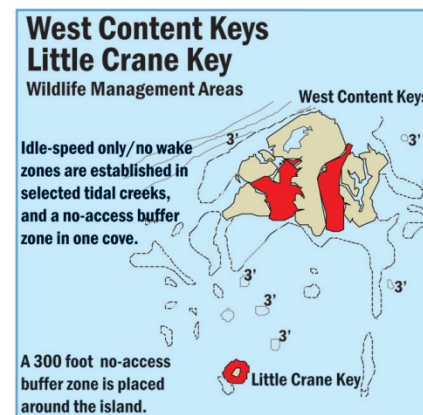
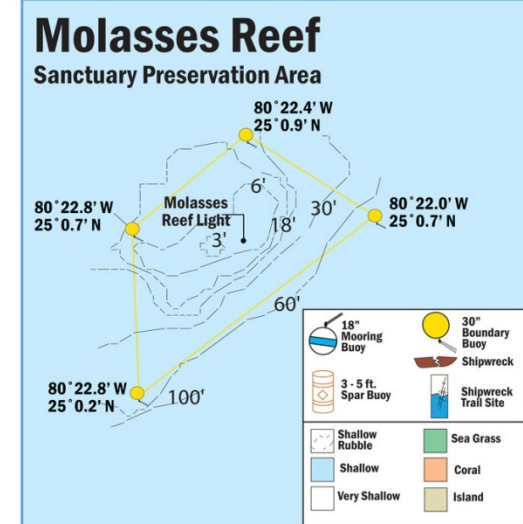
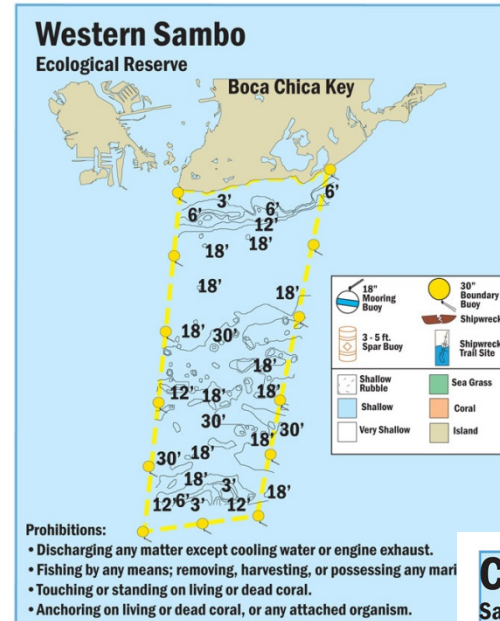
***FKNMS Final Management Plan, 1996***



# Marine Zoning for User Conflicts and Resource Protection



- Preservation Areas and Ecological Reserves – No Take Areas
- Wildlife Management Areas – Access, Speed and Boating Restrictions
- Special Use Areas – Research Only
- 94% of Florida Keys NMS is “General Use”





# FKNMS Marine Zoning Plan



- **18 Sanctuary Preservation Areas**
- **4 Research-Only Areas**
- **2 Ecological Reserves  
(1997 and 2001)**

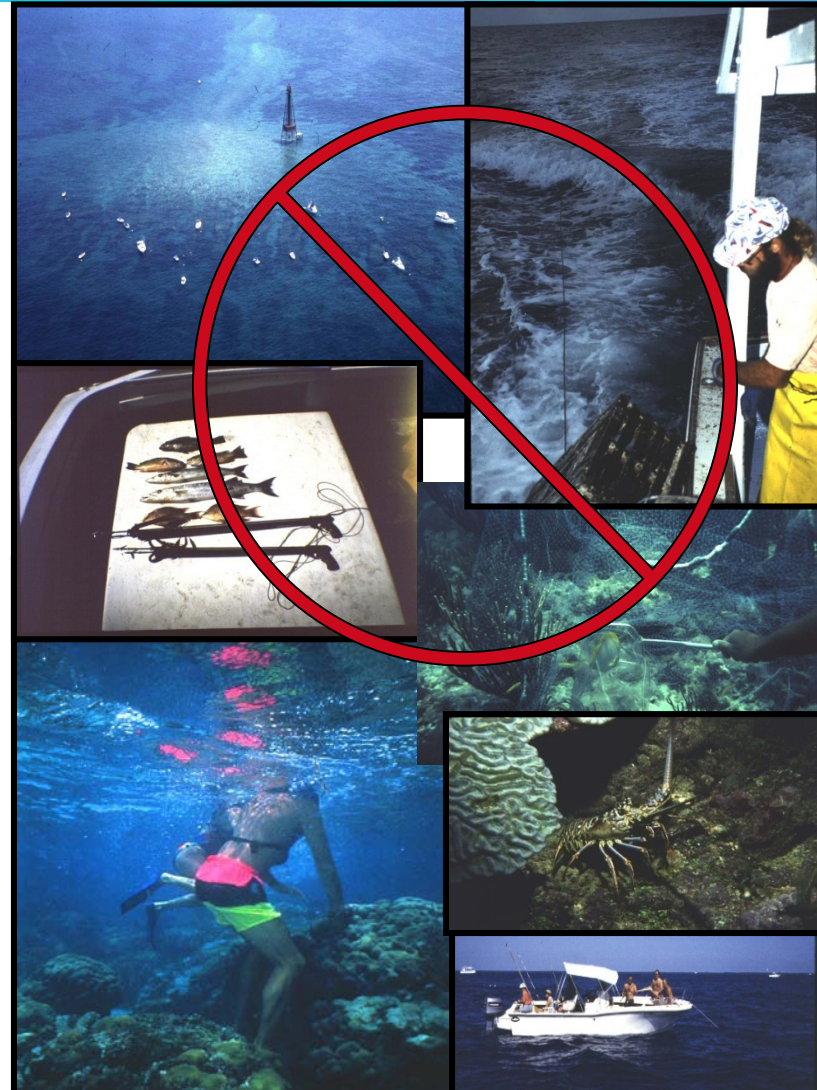


- **27 Wildlife Management Areas**
- **19 Existing Management Areas**



# Sanctuary Preservation Areas

- 18 SPAs (No-Take Areas)
- Shallow, heavily used reefs
- Areas of user conflicts
- Concentrated visitor activity leads to resource degradation
- Vary in size, water quality, and biodiversity
- Can sustain and protect habitat
- Enhance reproductive capabilities of renewable resources
- Areas that are critical for sustaining and protecting important marine species
- Reduce user conflicts in high-use





# Special Use – Research Only Areas

- **4 Research Only Areas**
- Variety of coral reef habitats
- Areas used for:
  - scientific research
  - educational purposes
  - restoration
  - monitoring
- High-impact activities prohibited
- Impacts minimized on sensitive habitats and reduce user conflicts
- **Only Permitted Entry Allowed**

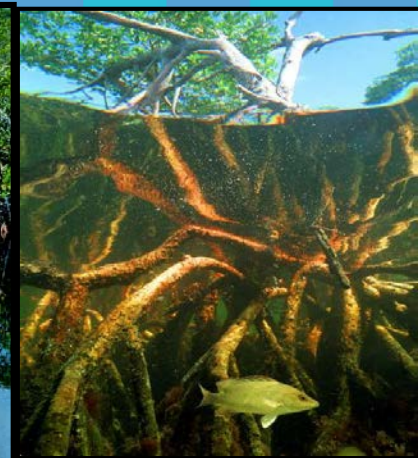




# Ecological Reserves

**2 Areas - 9 snm and 151 snm**

- **Areas of high habitat and species diversity**
- **Representative Keys marine ecosystem**
- **Generally good water quality**
- **Encompass large enough areas to include a range of habitats**
- **Provide natural spawning, nursery, and permanent residence areas for the replenishment and genetic protection of marine life**
- **Protect and preserve all habitats and species particularly those not protected fishery management regulations.**



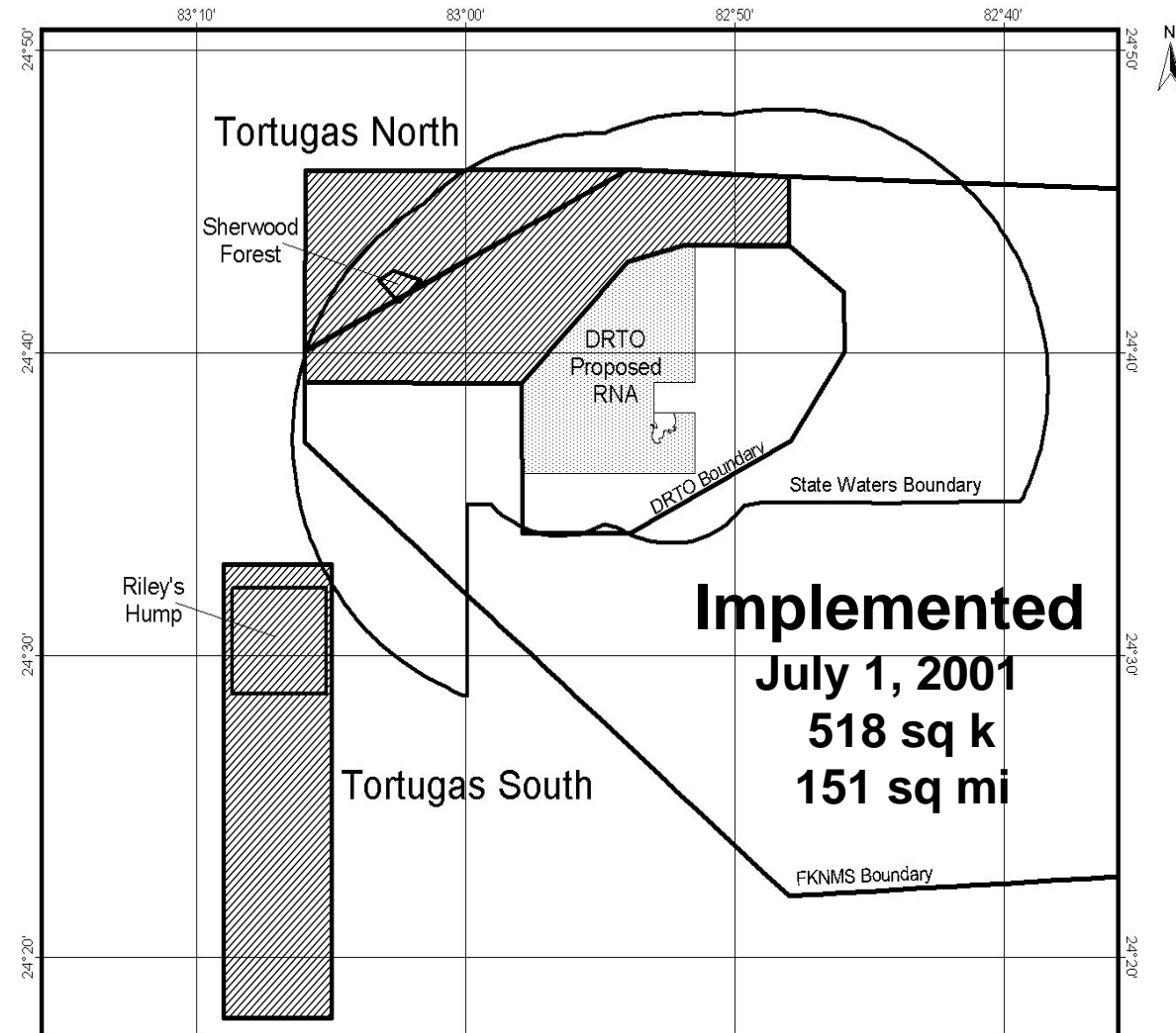


## FLORIDA KEYS



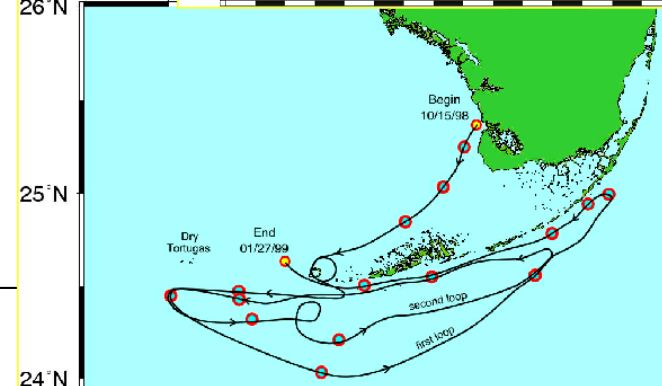
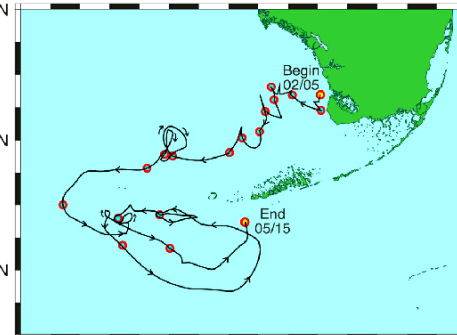
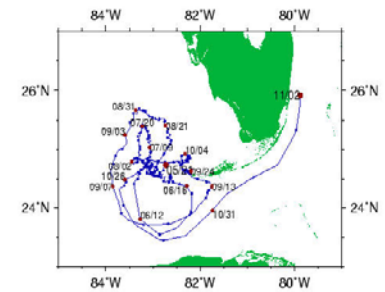
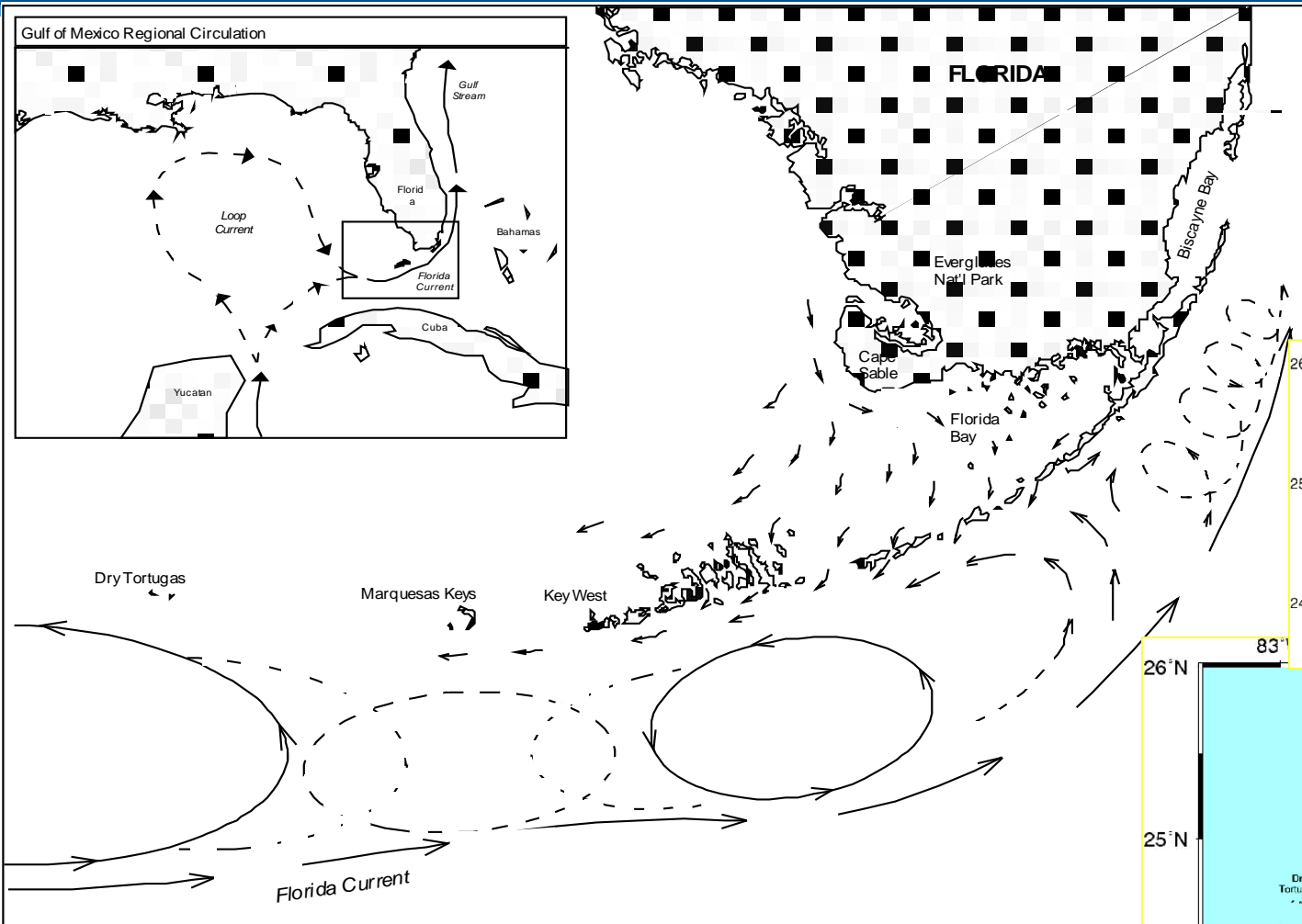
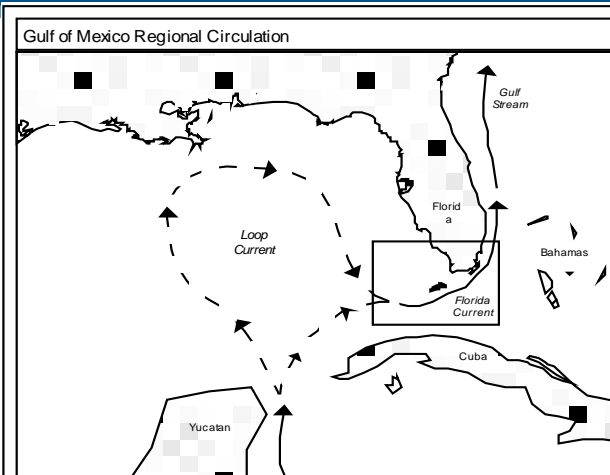
# Ecological Reserves

## Tortugas Ecological Reserve - 151 sq mi





# Currents – Dispersal Highways



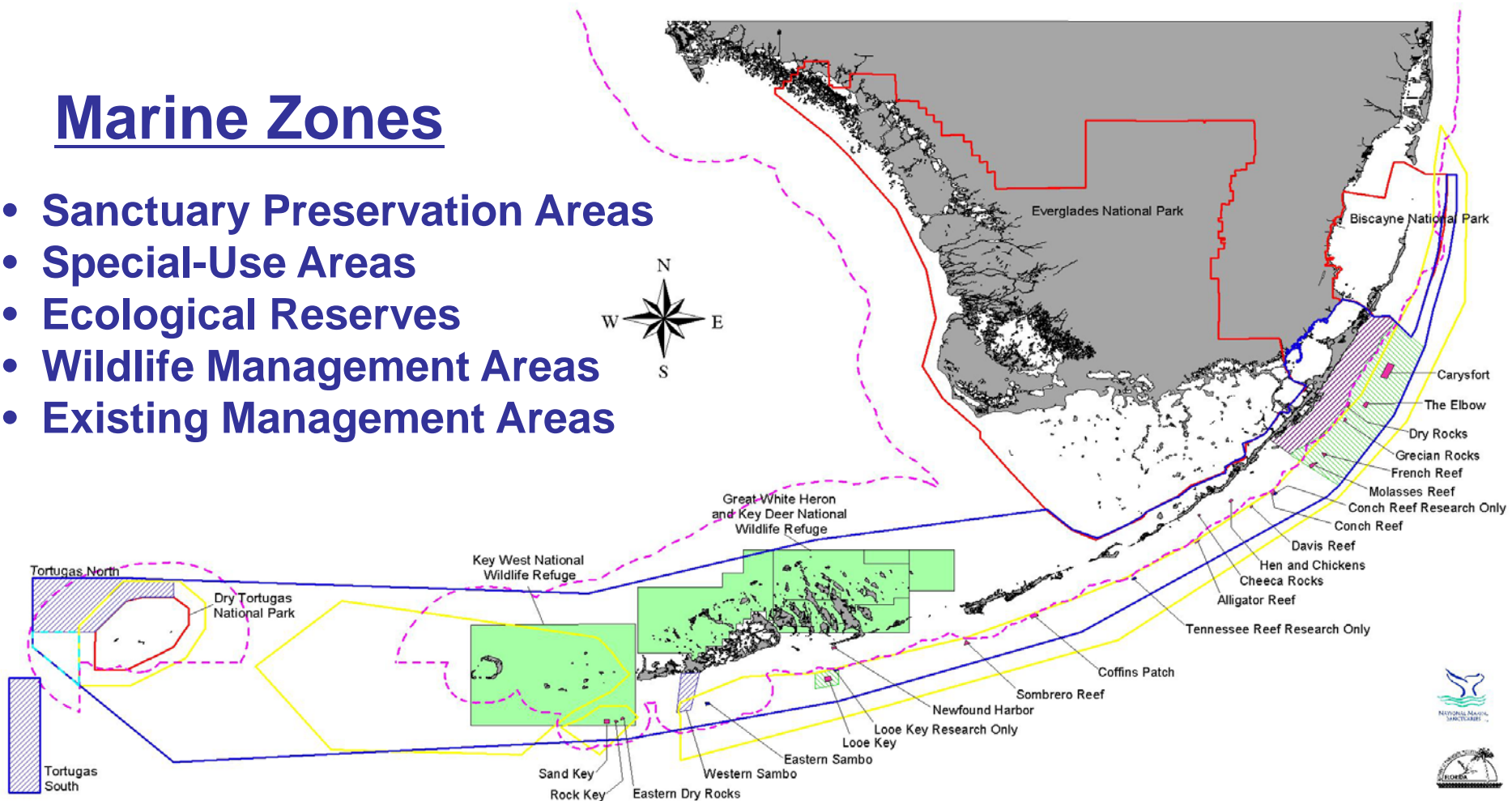
(Lee and Williams - Univ of Miami)



# Florida Keys National Marine Sanctuary

## Marine Zones

- Sanctuary Preservation Areas
- Special-Use Areas
- Ecological Reserves
- Wildlife Management Areas
- Existing Management Areas





# Wildlife Management Areas

- 27 WMAs (19 with USFWS)
- Include bird nesting, resting, or feeding areas, turtle nesting beaches, and other sensitive habitats
- Vary in size and location
- Protect endangered or threatened species or their habitats
- Provide opportunities for public use / reduces conflicts
- Mode of Access Managed





# Wildlife Management Areas

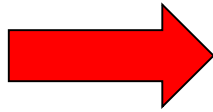
## Conflicting Uses: Flats Fishermen vs PWCs



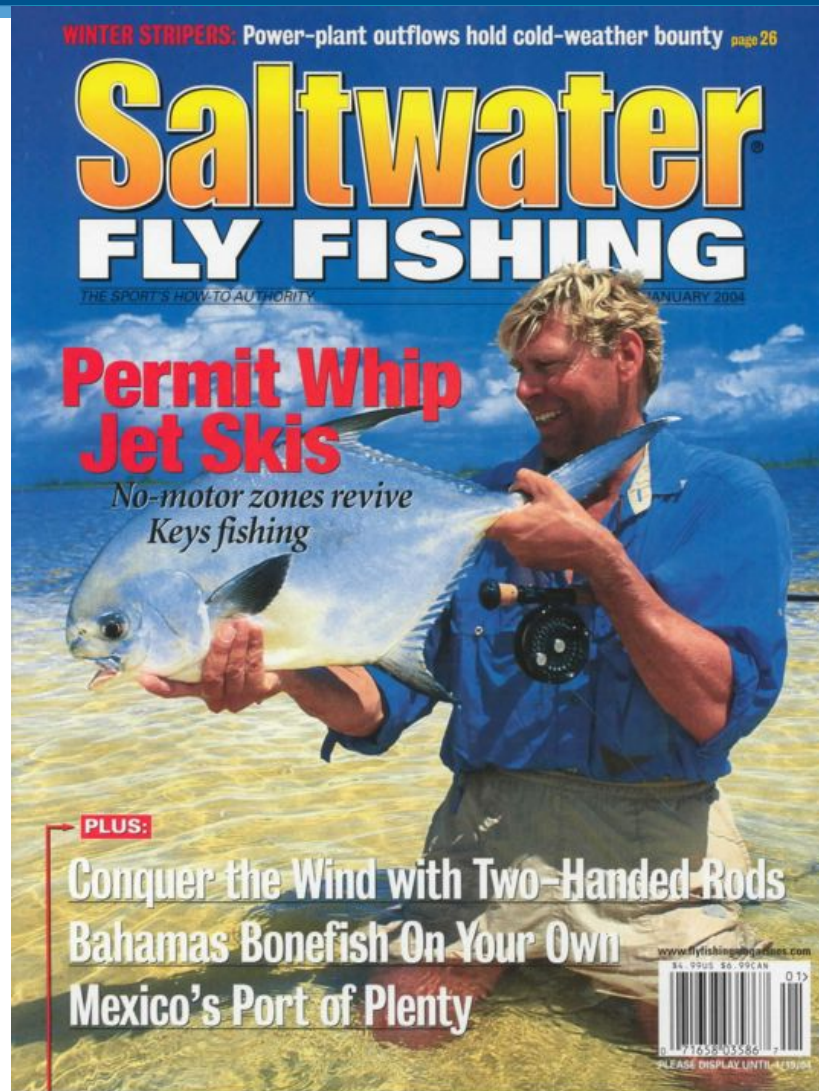


# Wildlife Management Areas

No Motor Zones  
Revive Keys fishing



January 2004  
Edition





# Existing Management Areas



- **19 Existing Management Areas**
- Areas of local, state or federal jurisdiction
- 6 Federal Areas
  - 2 previous NMSs
  - 4 USFWS Refuges
- 13 State/local jurisdictions
  - 6 State Parks
  - 3 Aquatic Preserves
- Regulations not affected by Sanctuary – Do not usurp
- **Sanctuary Regulations Enhance existing regulations in many instances**



***Wildlife Refuges***



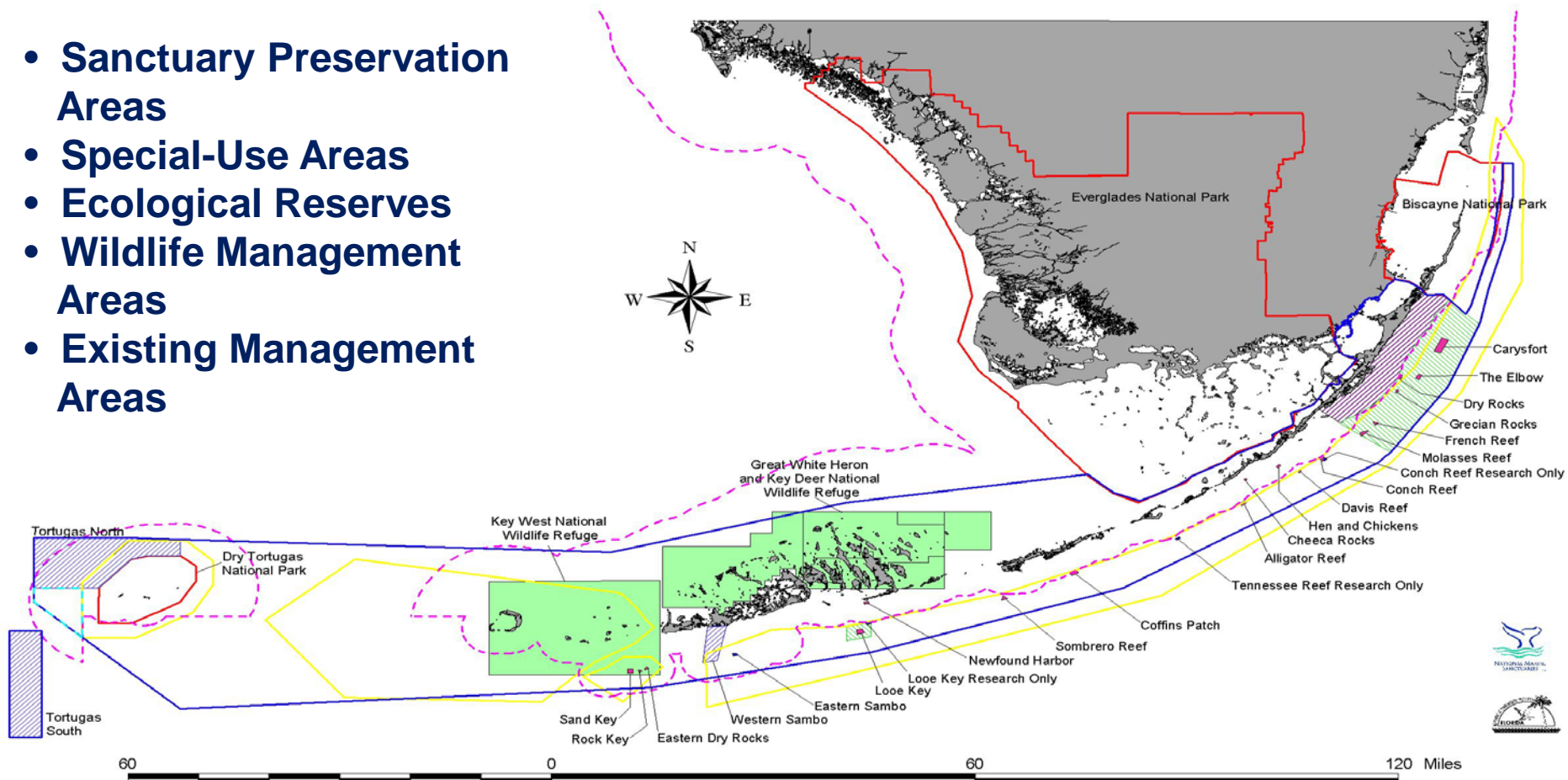
***Looe Key and Key Largo National Marine Sanctuaries***



# New Marine Zoning Process Underway

## Marine Zones

- Sanctuary Preservation Areas
- Special-Use Areas
- Ecological Reserves
- Wildlife Management Areas
- Existing Management Areas

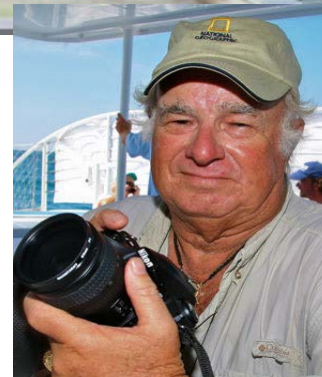




# Sanctuary Advisory Council Representatives and Volunteers Lead Planning Efforts

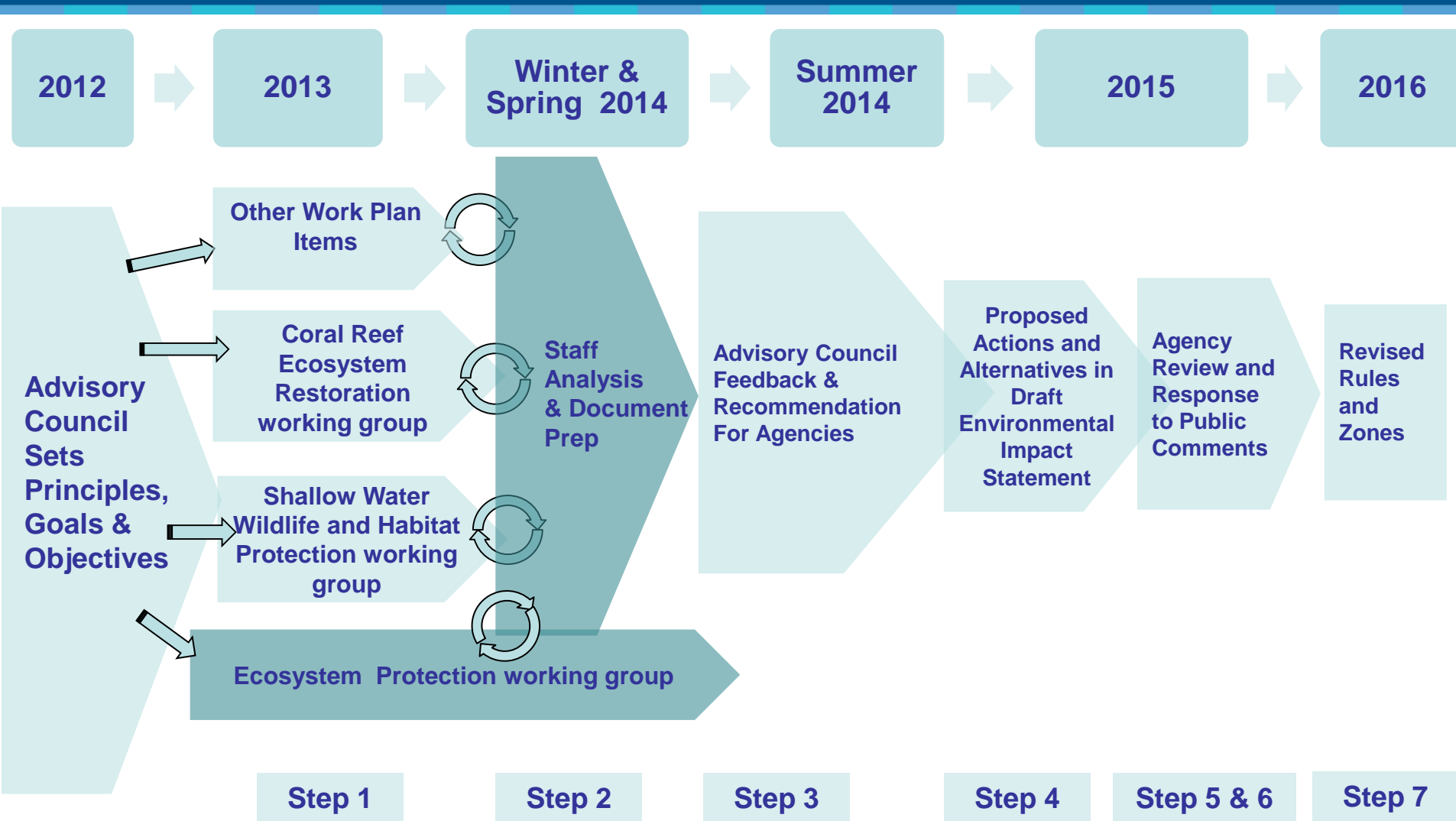


- Boating Industry
- Elected County Official
- Citizens at Large (3)
- Conservation (2)
- Research
- Education
- Tourism (2)
- Diving (2)
- Charter Fishing (2)
- Commercial Fishing (2)
- Recreational Fishing
- Submerged Cultural Resources
- South Florida Ecosystem Restoration





# Marine Zoning and Regulatory Review Timeline

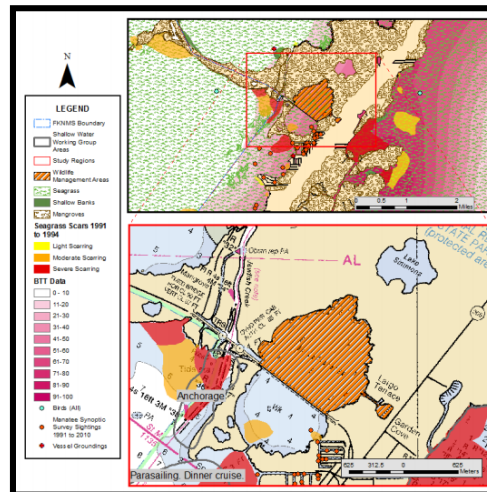




# Science and Research



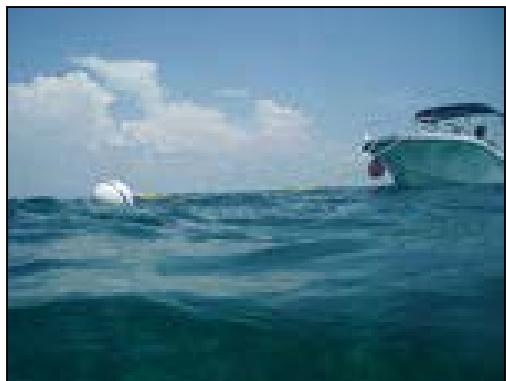
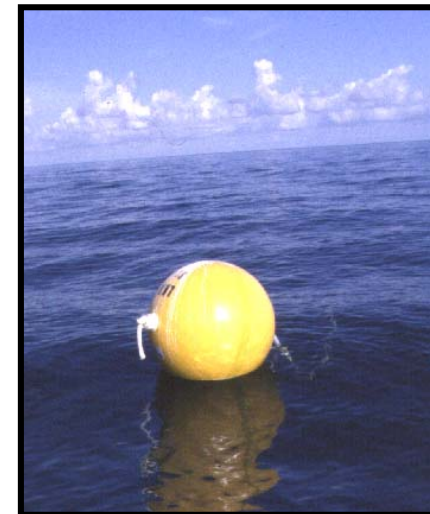
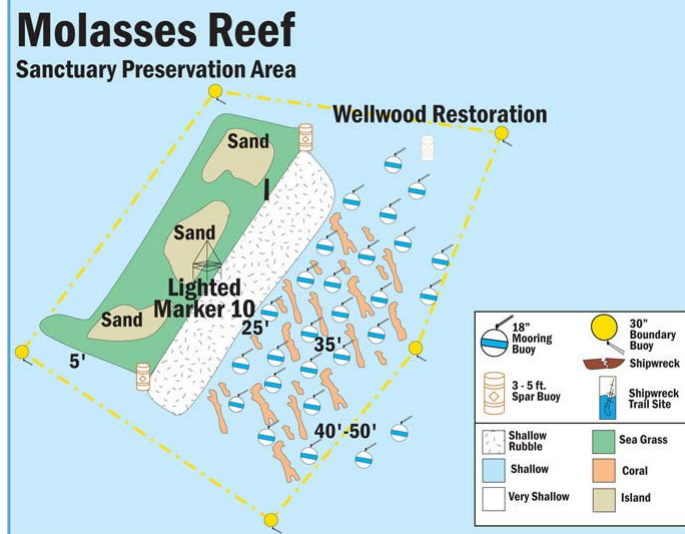
- Damage Assessment
- Restoration
- Permit Review
- Research Support
- GIS





# Buoys

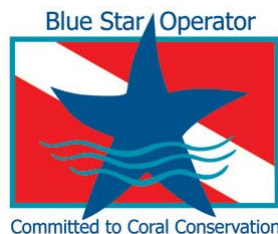
- 1981: First Install
- 490 Mooring buoys
- 121 SPA Zone Buoys
- 160 WMA Zone Buoys
- 37 Informational Buoys





# Education/Outreach

- Team OCEAN
- Blue Star
- Dolphin SMART
- Blue Rider
- Festival and Events
- Boater Education
- School Programs
- Florida Keys Eco-Discovery Center





# Marine Community: Team OCEAN



## Summer

- Stationed at reefs in Key West, Looe Key and Key Largo
- Volunteers: 600+ hours
- Contacts: 1,250+



## Winter

- Shoreline Clean-Ups
- Since 2007- removed 36,000 lbs. of marine debris

Year Round Material Distribution  
and Business Relationships





# Business Community: Blue Star

- Established- 2009
- Voluntary Program
- Recognizes tour operators committed to educate their customers about the coral reef ecosystem, the sanctuary, and diving and snorkeling etiquette.
- Yearly must meet criteria: program requirements, education, and evaluation.





# Community: Blue Star Operators



- A Deep Blue Dive
- Abyss Dive Center
- Amy Slate's Amoray Dive Resort
- Captain Hook's Marina and Dive Center
- Conch Republic Divers
- Dive Key West
- Florida Keys Dive Center
- FURY Water Adventures
- Horizon Divers



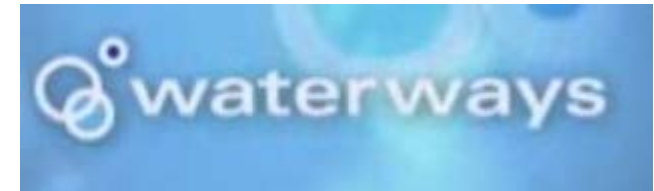
- John Pennekamp Coral Reef State Park
- Keys Diver and Snorkel Center
- Quiescence Diving
- Rosa Del Mar Sailing
- Silent World
- Spree Expeditions, Inc.
- Sunshine Coast Adventures
- Zia Charters



# Media



- Website: [floridakeys.noaa.gov](http://floridakeys.noaa.gov)
- Publications
  - Subject Matter Expert
  - Guest Articles
- Waterways TV
- Press Releases
- Weekly Radio Participation





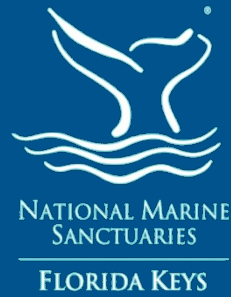
# Enforcement



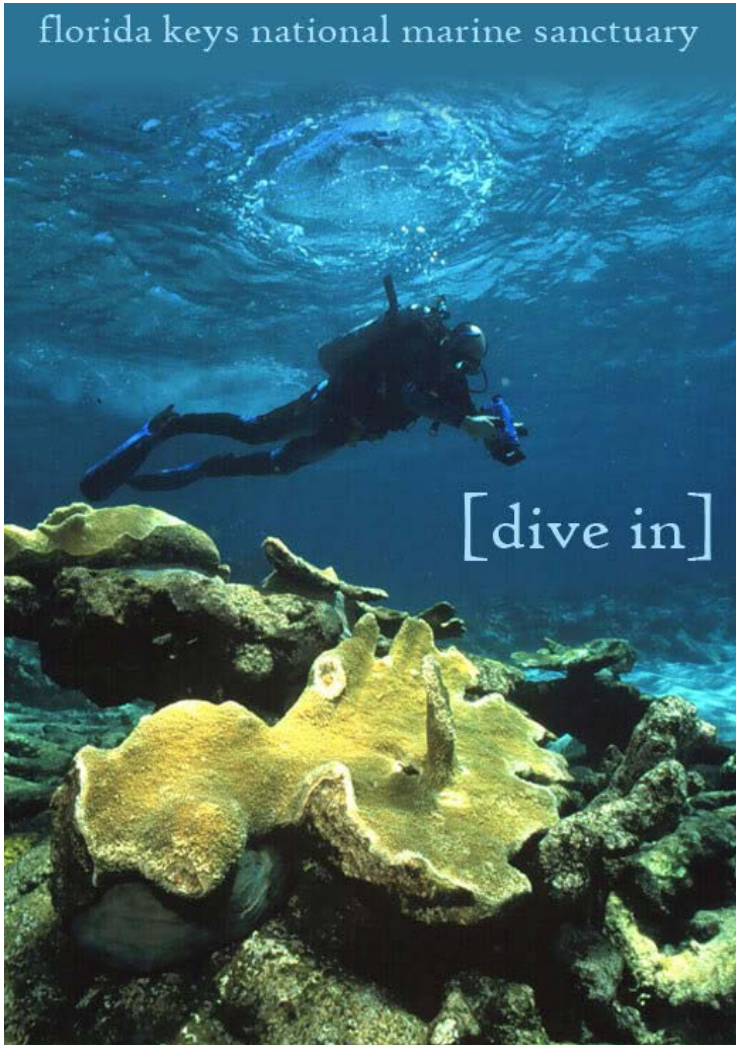
- Florida Fish and Wildlife Conservation Commission
- U.S. Coast Guard
- NOAA Office of Law Enforcement
- U.S. Fish and Wildlife Service



# More Information:



florida keys national marine sanctuary



[dive in]

## Websites:

[floridakeys.noaa.gov](http://floridakeys.noaa.gov)

[facebook.com/floridakeysnoaa.gov](https://facebook.com/floridakeysnoaa.gov)

[twitter.com/FloridaKeysNMS](https://twitter.com/FloridaKeysNMS)

## Email:

[Billy.Causey@noaa.gov](mailto:Billy.Causey@noaa.gov)

## Phone:

305 809 4670 ex 234

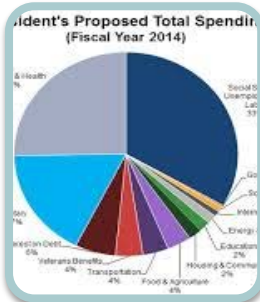


# Fundamental Role of Community in the Growth of the National Marine Sanctuary System





# System Facts



**FY14  
Budget**  
**\$50M**

**Total  
Staff**  
**325**

**SAC  
Members**  
**440**

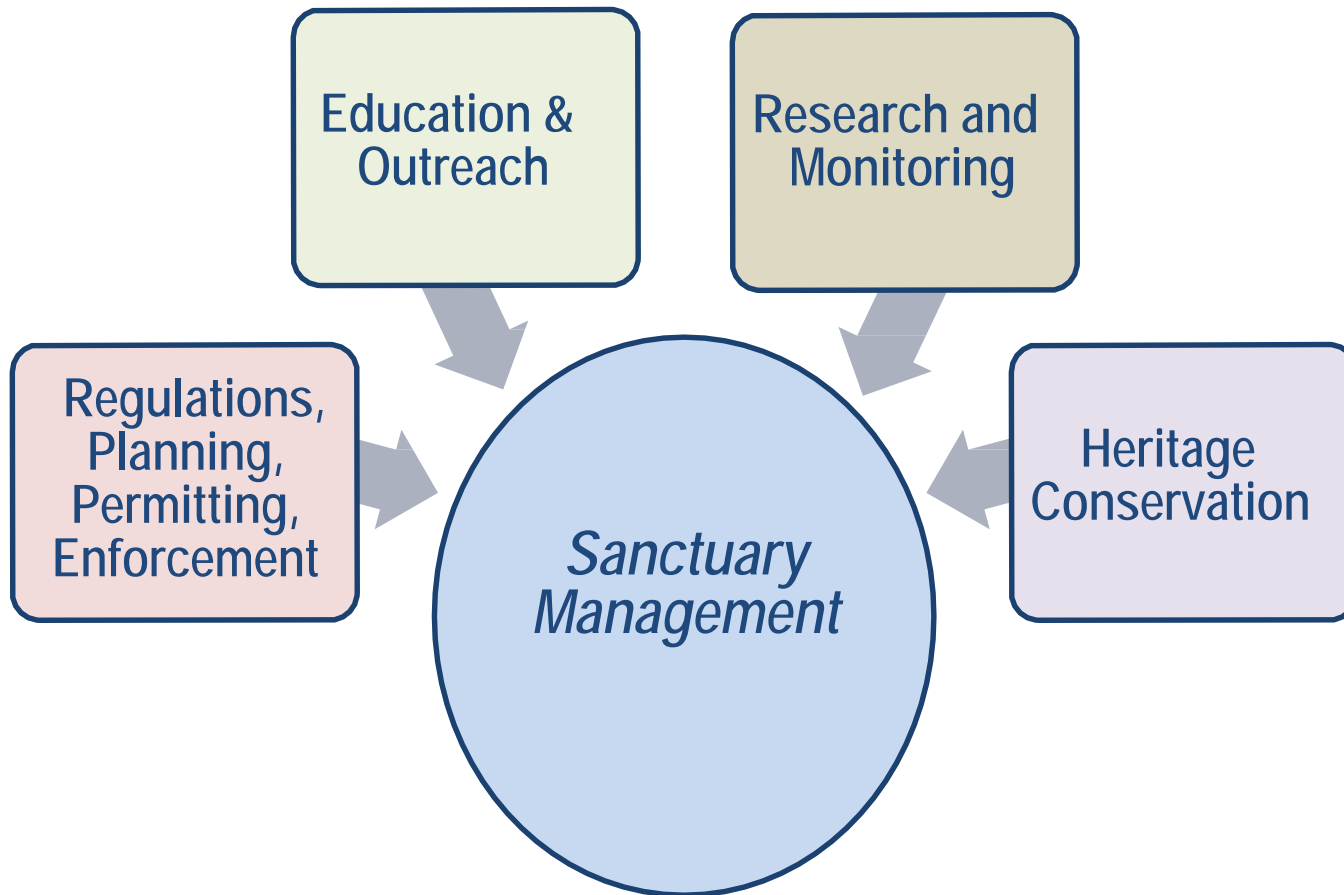
**Vessels**  
**47**

**Visitor  
Centers**  
**7**

**Major  
Partners**  
**400+**



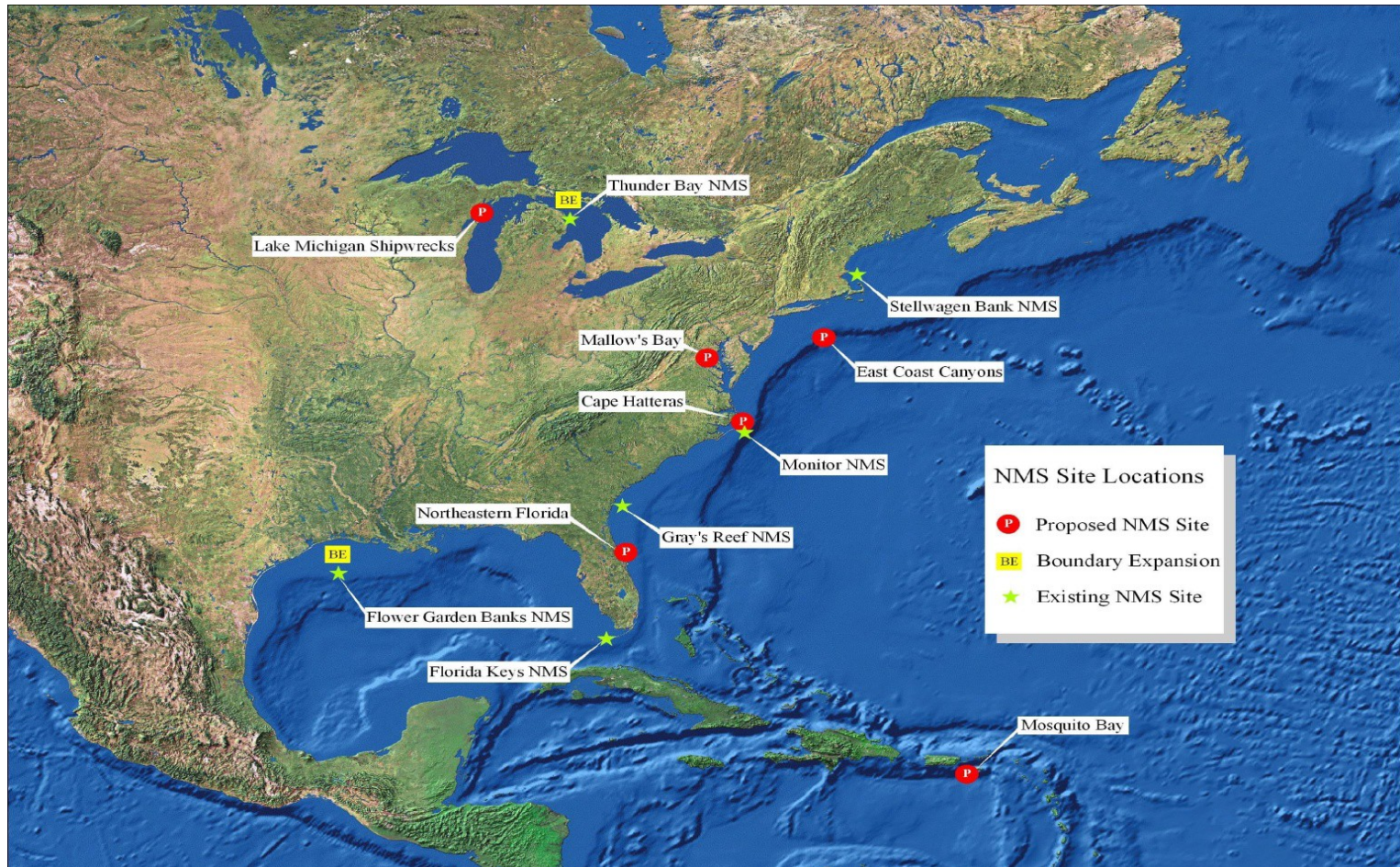
# The Sanctuaries Model





# Sanctuaries Are In Demand

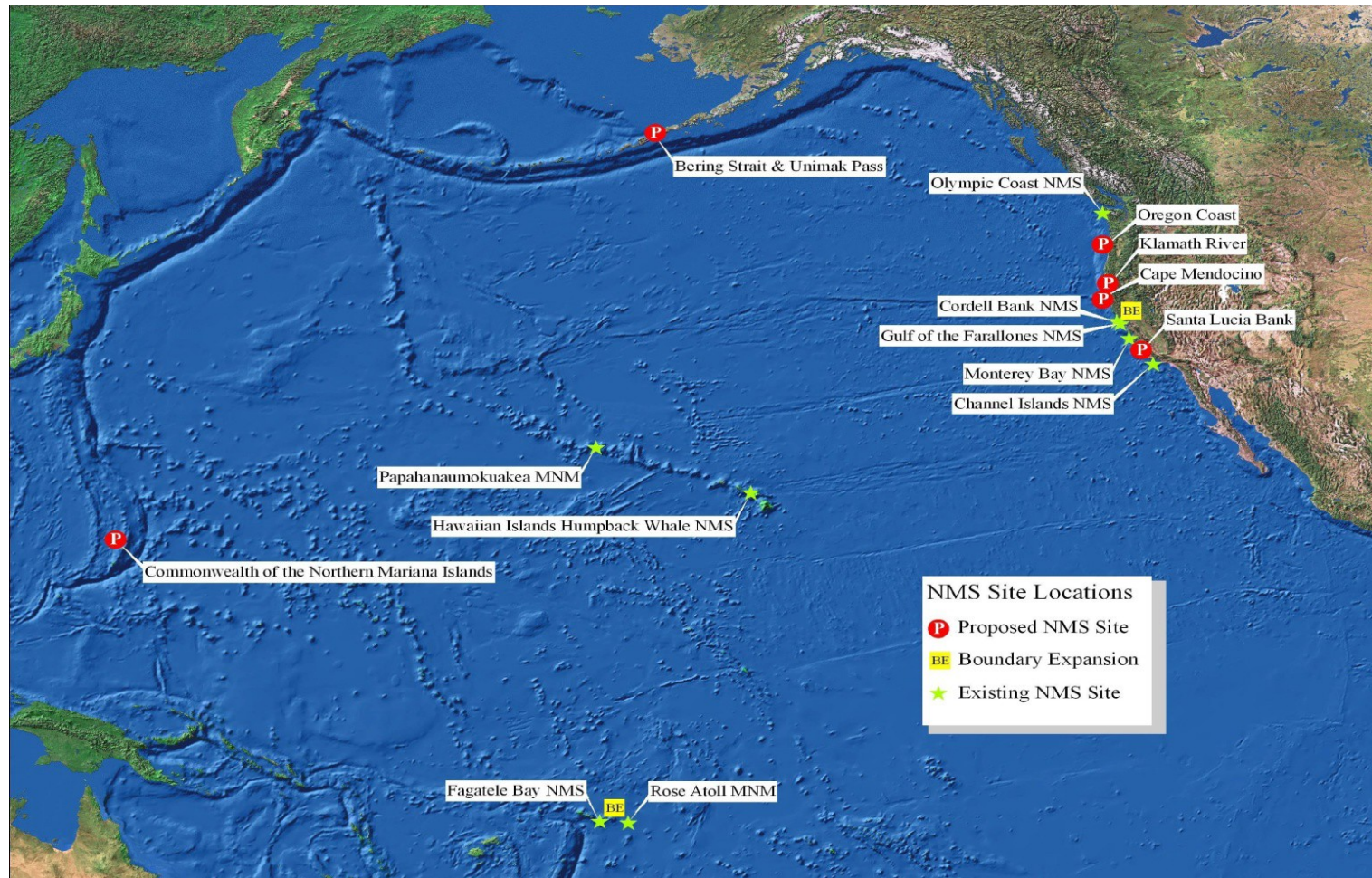
## Nationwide Community Interest in New Sites





# Sanctuaries Are In Demand

## Nationwide Community Interest In New Sites





# The Sanctuary Nomination Process

## New Sites for Future Generations



A vertical flow diagram consisting of three white circles connected by a blue line. Each circle is connected to a rectangular text box on its right. The first circle is at the top, the second in the middle, and the third at the bottom. The text boxes contain the following descriptions of the process.

Re-establishes the process by which the American public nominates special places as new National Marine Sanctuaries

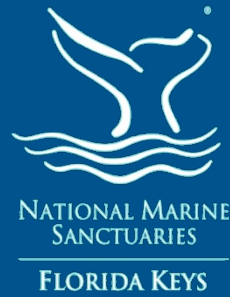
Built around evaluative criteria and considerations directly connected to the NMSA

Recognizes nationally significant resources and habitats, as well as economic incentives and collaborative partnerships



# The Sanctuary Nomination Process

## History

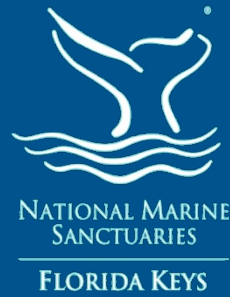


- NOAA's first formal process for sanctuary designation was developed in late 1970s
- NOAA then developed the more detailed Site Evaluation List (SEL) process in 1983
- Sites on the SEL were determined by regional review panels and NOAA staff



# Sanctuary Nomination Process

## History

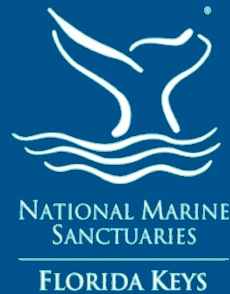


- By 1994, NOAA and Congress had designated twelve sites as national marine sanctuaries.
- In 1995, the ONMS Director deactivated the SEL to focus on management of the existing sanctuary system.
- Since then, only one national marine sanctuary has been added to the sanctuary system - Thunder Bay NMS in 2000.



# Sanctuary Nomination Process

## History



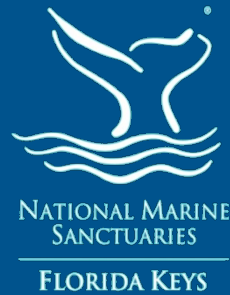
Interest in new national marine sanctuaries is diverse and widespread:

- Individuals
- Local, state, and tribal governments
- Academia
- Citizen groups
- Sanctuary Advisory Councils
- Non-governmental organizations



# Sanctuary Nomination Process

## Proposed Approach

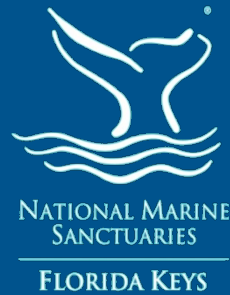


- Nearly 18,000 comments on the proposed rule, the majority of which were in strong support.
- Reestablishing the nomination process supports NOAA's ability to fulfill the mandate of the National Marine Sanctuaries Act and supports the Administration's National Ocean Policy goal of ensuring healthy coastal communities and economies.



# The Sanctuary Nomination Process

## Proposed Approach

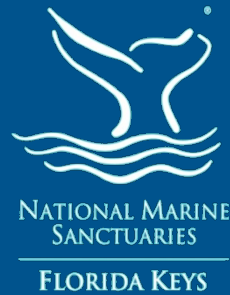


- Replaces the inactive SEL with community-based, criteria-driven proposals for new national marine sanctuaries. Community must demonstrate broad “membership.”
- The final rule includes:
  - 1) criteria and considerations to evaluate nominations
  - 2) a guide to the nomination process
  - 3) responses to public comments on the proposed rule
  - 4) final regulations



# The Sanctuary Nomination Process

## Proposed Approach



- Stakeholders will work together to build engagement and solicit nominations for areas as new national marine sanctuaries.
- Communities will be expected to identify opportunities for partnerships and collaborative management.
- Nominated areas will be reviewed by NOAA against the final criteria and considerations; if successful, the agency may move forward with formal designation as a national marine sanctuary.



# Sanctuary Nomination Process

## Proposed Approach



- All nominations will be made public via dedicated website.
- New nominations do not equate to new sanctuary designations. Formal designation occurs in a separate, highly public process that often takes years to complete.
- The designation process is established by standards in the National Marine Sanctuaries Act.



# Sanctuary Nomination Process

## How You Can Help



- Familiarize yourself with the process.
- Know the benefits – and needs – of our Sanctuary System.
- Engage with interested communities.
- Raise awareness in those that may not be aware.
- Support – directly or indirectly – future nominations.
- Talk to your members of Congress.



SE Atlantic, Gulf of Mexico and Caribbean Region  
Office of National Marine Sanctuaries

- ★ Existing Sanctuary
- ⌚ Proposed Site Expansion
- Ⓟ Proposed New Sanctuary Site

★ *Gray's Reef*

Ⓟ Submerged  
Cyprus Forest

Ⓟ NE Florida

Ⓟ USS Hatteras

★ ⌚ *Flower Garden Banks*

Ⓟ Monterrey Shipwrecks

*Florida Keys* ★

Puerto Rico  
Ⓟ  
Mosquito Bay  
NE Reserves  
Culebra  
Guanica