

**Florida Department of Environmental Protection (FDEP)
Coral Reef Conservation Program (CRCP)**

**Southeast Florida Coral Reef Initiative (SEFCRI)
Our Florida Reefs (OFR)
North Community Working Group Meeting**

Wednesday, August 27, 2014, 9 am – 5 pm

**Green Cay Nature Center
12800 Hagen Ranch Rd, Boynton Beach, FL 33437**

In person:

CWG: Andrea Graves, Carman Vare, Dan Wusinich-Mendez, Greg Braun, Irene Arpayoglou, Erin McDevitt (A – Jeff Beal), Kathy Fitzpatrick, Lee Shepard, Stan Mihalecz (A – Lou Romano), David Anderson, Mike Brescher, Mitch Comiskey, Nikole Ordway, Pam Hopkins (A – Vincent Encomio)

Absent: April Price, Butch Olsen, Oliver Green, Peter Friedman, Richard Harvey, Ron Messa, Scott Fawcett, Tom Warnke

FDEP CRCP: Ben Wahle, Meghan Balling, Lauren Waters, Caitlin Pomerance, Karen Bohnsack

Facilitator: Carol Lippincott (Florida)

Public: Paul Davis, Jessica Garland, Danielle Graham, Amanda Costaregni, Drew Martin, George Sedberry

Key points (i.e. the points emphasized by the speakers) are highlighted in yellow

Action items are highlighted in yellow and will be labeled as **Action Item**

Group decisions are highlighted in yellow and will be labeled as **Decision**

Meeting Summary

9:00 AM – Welcome & Meeting Overview

Thanks to Palm Beach County for providing this venue free of charge

Work Plan progress so far:

- Almost halfway through (meeting 6) the OFR process
- You got organized
- You completed the learning curve (done after today)

Meeting purpose:

- Hear case studies of coral reef management
- Get introduced to materials for listing and prioritizing management actions
- Develop a vision for SE FL coral reefs in 20 years

New CWG alternate – Stan Mihalecz (A – Lou Romano):

- Lives in Jupiter, avid diver
- President of Jupiter Drift Divers
- Wants to spread the word about reefs and help prevent their degradation

Consensus based decision-making

- Groups making decisions by agreement
- According to your charter, you want as many people in agreement as possible
- OFR process based on four core values
 - Full participation
 - Mutual understanding: understanding diverse perspectives
 - Inclusive solutions: something for everyone
 - Shared responsibility: everyone is actively involved and contributes
- As discussion progressive, you will be POLLED for a level of agreement
 - This is not a vote – simply to see if you need to continue the discussion or move on to an official vote
 - This will help build a higher level of agreement
- When most people are on board with a proposal, you will have an official vote
 - Formal votes: 83% agreement required
 - Used in listing and prioritizing management actions, changes to decision rules
 - Procedural votes: 65%
 - Used for charter (group norms, work plan, decision rules) and all other votes

9:10 AM – Develop Shared Vision for SE FL Coral Reefs

Introduction

- The NCWG performed an expedited 2-hour exercise to create vision statements that describe what they want the northern third of the Florida Reef Tract (north of the Key Biscayne lighthouse) to look like in 2034 - 20 years from now - as a result of implementation of their management actions
- The purpose of this exercise was to provide an image for them to aim toward as they develop their recommended management actions, so that their management actions are designed to achieve their vision
- The NCWG was asked to develop separate vision statements for each of their 6 focus areas, starting with one sentence and adding to it as needed. The resulting vision statements are, as expected, unpolished due to lack of time to do so
- The NCWG voted to adopt the following vision statements, which they asked the facilitator to clean up in terms of punctuation and grammar. While the statements contain many elements of the CWG's vision, the CWG emphasized that these vision statements are not comprehensive or complete

Purpose: Focus management actions on achieving a specific PICTURE of the future

- You need to know what that picture looks like so that your actions can help get you there
- At the end you should have a shared vision for the future of SE FL coral reefs in 20 years from now
- Example: build a house before creating a design (NO)
 - Need to envision the house – where the rooms are and what is in it
 - Draw plans and THEN build it

Mission vs. Vision

- Mission: why you exist and who you are working for
- Vision: what you want the future to look like
 - A PICTURE of your desired future for SE FL coral reefs in 20 years
 - A PICTURE that can come true when your management actions take effect
 - A vision IS NOT how to get there (those are your management actions)
 - We want to know once your management actions are in place, what does it look like?

Vision Exercise

- 2 hours long – vision statement will not be polished or perfect
 - Will be a useful picture of the reefs in the next 20 years
- You will develop vision statements based on your six focus areas
 - Fishing, Diving, and Other Uses
 - Education Outreach/Awareness
 - Land-Based Sources of Pollution/Water Quality
 - Enforcement
 - Coastal Management/Construction
 - Direct Impacts to Reefs
- Statements will read: “Our vision for SE FL coral reefs, in terms of (focus area) looks like...”
 - These statements SHOULD NOT be technical (no quantities)
 - Need to be an engaging and inspirational statement
 - Should be brief, simple, and exciting
 - Example: NASA’s early vision – picture was “put a man on the moon” by the 1960s
- Sample vision statements (taken from working groups developing a vision for a fictitious freshwater springs in north Florida)
 - In terms of the environment “water in clear spring once again flows so abundantly that it sometimes forms a roiling mound at the spring boil”
 - “groundwater flowing to clear spring is cleaner than groundwater in most of the state”
 - “manatees have returned to clear spring in the winter because there is now abundant eelgrass for them to eat”
 - In terms of community “clear spring is highly valued as a place for family reunions, weddings, and baptisms”

- "Smith county residents are proud that they use less water than in most other areas in the state"

Methods

1) Each table will be given a focus area, and each group will have about 25 minutes to come up with the first sentence describing your vision for this focus area*

- Select a table moderator to keep the discussion going and write on the flip chart – you will keep that color pen as you move between flip charts
- Go around the table and talk with each other about what your sentence would be – craft it so it reflects the opinions of everyone at your table

2) After 25 minutes, you will rotate to a new table with a new focus area – you will look at what the previous group wrote and build on it. You cannot subtract or modify, only build. You can add words or phrases

3) After rotating through all six tables, the flip chart will contain a vision sentence with additions from all six groups – you will review these statements and approve them as a group by voting

- These are intended to be rough statements that are useful, not polished products
- The vision statements will be part of your meeting summary, and Carol can grammatically clean them up
 - The purpose of this exercise was to have you talk about where you want to be in 20 years

Picture for your vision: Imagine 20 years from now, you are out on the coral reefs on a boat offshore. You've been up and down the reef all week from Martin to Key Biscayne. You are so pleased to see what's happened to the reefs in SE FL. You're really glad that you stuck with OFR because your management actions worked. What do the coral reefs look like, what do mangroves, sea grass, and beaches look like, what does the community look like in regards to coral reefs?

**Due to low attendance, audience members were asked to sit at the tables and contribute during this exercise. The community working group members approved all decisions.*

Results*

These final approved vision statements reflect the changes that were made to the proposed statements before they were approved. Words with a ~~highlighted strikethrough~~ were included in the proposed statement but omitted in the final product by the NCWG as a whole. Text in **red replaces omitted words or phrases.*

1) Direct Impacts to Reefs

- Proposed: Vessels using official mooring buoys that are well sited and provide adequate access for the boating community; no evidence of obvious anchor damage; and educated divers using reef-safe diving practices.

- Approved: ~~All~~ Vessels using official mooring buoys that are well sited and provide adequate access for the boating community; no evidence of obvious anchor damage; and educated divers using reef-safe diving practices.
- Respectful and ethical use of fishing and diving gear, management of marine debris, and no or reduced impacts from the shipping industry.
- Large complete coral colonies and barrel sponges, abundant gorgonians, and dense seagrass beds; anchoring only in designated areas; no marine debris such as plastics, beer cans, and golf balls on the reef.

2) Enforcement

- Due to wide appreciation of the value of our Florida reefs, sufficient funding is appropriated to provide effective, increased, adequate enforcement. Because of enforcement, voluntary compliance, and shared stewardship between agencies and the community, our reefs and sea life are healthy and thriving.
- Proposed: Implementation of a coral reef abuse/violation hotline where calls are documented and responded to by a specific reef enforcement agency. Well paid officers, lower attrition rate, environmentally aware judges and courts.
 - Approved: Implementation of a coral reef abuse/violation hotline where calls are documented and responded to by a specific reef enforcement ~~agency~~ entity. Well paid officers, lower attrition rate, environmentally aware judges and courts.

3) LBSP/Water Quality

- Improved water management with re-established historic flows and hydrology that allow increased filtration and adequate groundwater recharge, coupled with green land-management practices that result in cleaner water releases to tide.
- Reduction of industrial, agricultural, and residential pollution at the source. Improved water management strategies with no discharge of sewage, storm runoff, lawn and golf course irrigation reaching the reefs.
- Clean water, low in nutrients, sediments, contaminants, and a healthy reef with no algal dominance and free of coral diseases.

4) Education, Outreach, Awareness

- Coral reefs and other Florida ecosystems are a standard part of the curriculum in our schools. Information about them is easily accessible to residents and visitors, resulting in a broad awareness of and appreciation for the value and beauty of our Florida reefs. People have the knowledge and understanding that their actions directly impact the reefs, and become active stewards of the ecosystems, and it is all part of the general conversation.
- Mandatory coral reef awareness training for dive certification, boating & fishing licenses. Tourism industry effectively promotes conservation.

5) Coastal Management and Construction

- A natural beach shoreline that renourishes itself, and ports and inlets that preserve estuarine shorelines and reef resources and serve as examples of environmentally sensitive dredging; location of offshore infrastructure guided by resource protection goals.
- Efficient and effective regulatory system governing coastal construction and maintenance.
- Clean water, self-sustaining beaches, and functioning coastal ecosystems providing habitat for foraging shorebirds and marine life such as sea turtles and juvenile fish, with adequate public access to beaches.

6) FDOU

- Users that value and respect a healthy reef have created a sustainable balance between protection and commercial and recreational uses, benefitting an eco-tourism economy.
- Users that respect and value the healthy and plentiful ecosystem resources, maintaining a sustainable balance between recreation, economic use, and protection.
- Proposed: A healthy reef ecosystem with large and abundant fish, where fishing and diving activities take place on separate areas of the reef.
 - Approved: A healthy reef ecosystem with large and abundant fish, where fishing and diving activities take place on separate areas of the reef we avoid user conflicts.

12:40 PM – Public Comment

Drew Martin: Sierra Club is holding an ocean conservation event on September 20 in Hallandale Beach

12:55 PM – Housekeeping

Lunch today was provided by Jim Massey and the Blue Water Initiative.

Vote to approve last meeting minutes: **PASS**

If you're not getting Meghan's emails, all the resources will be posted at www.ourloridareefs.org

CWG members who have attended every meeting:

- Andrea Graves
- Carman Vare
- David Anderson
- Irene Arpayoglou
- Lee Shepard
- Mike Brescher

Electronics capabilities for upcoming meetings and homework

- Next month for homework, you'll be listing management actions
- SEFCRI needs details associated with your management actions, and they've created a few worksheets for you to fill it out
 - The preferred method to submit this information is to do it electronically
 - To do this, you'll need to be able to:
 - Use standard word processing software
 - Easily access the internet
 - Use simple online programs such as surveygizmo
- If you are unable to do any of these things, please talk to or contact Meghan

You received a survey about the November meeting

- Majority said Tuesday November 11 was the preferred option
- Turns out that's Veteran's Day! Oops!!! – we need to reschedule

Action Item: Meghan will send out a new doodle poll about November meeting preferences

1:05 PM – Helping You to List and Prioritize Your Management Actions

Speaker: Karen Bohnsack, FDEP CRCP

Up to this point you have been going through the educational phase, but starting September you'll start developing management actions

The worksheets you are receiving today will be used in September

Why you're here

- Develop a prioritized list of recommended management actions to preserve and protect SE FL coral reefs

2 jobs: Develop management actions, and then prioritize them

1) List management actions

- Use Quality Check for listing – there are two criteria for a management action to meet the quality check:
 - “Activity that helps enhance or maintain the condition of coral reef ecosystems or reduce threats to coral reef ecosystems to ensure their long-term self-renewal”
 - Is a short phrase: verb, object, and brief benefit of activity
- Quality check will ensure everything is in consistent format and is on topic and relevant
- Write actual management actions on the management action template (printed form on beige cardstock)
 - Phrase must contain verb, object, benefit
- At the September and October meetings the group will decide as a whole whether the management actions meet the quality check

2) Information Gathering

- Trying to capture all the details about each management action
- SEFCRI has come up with two worksheets to do this:
 - Tier 1: critical information needed from (specifically) community working groups
 - Includes information about focus areas, intended outcome, justification, pros and cons, location, duration, and spatial information (if necessary for use of marine planner)
 - Tier 2: supplementary information needed from CWGs and SEFCRI
 - Gather all additional information that is relevant to the management action
 - Will help capture true intent of the management actions
 - Will ask:
 - Why (benefits/disadvantages, linkage to SEFCRI goals and objectives, supporting data)
 - When (timeframe)
 - Who (key stakeholders and agencies)
 - How (cost and other feasibility questions)
 - Will go into more in depth about the outcomes
- 1st SEFCRI review comes after these two steps
- Prioritizing Management actions

3) Initial Prioritization

- Will use the score sheet for prioritizing management actions
 - Score each action based on three criteria: benefits, feasibility, cost
 - Uses a scale of very high, high, medium, low
 - Will be a computerized scoring system
- Compilation of results will be used to group management actions into three tiers of bottom, middle, and top

4) Final Prioritization

- Results from score sheet aren't final – as a group you can look at initial prioritization results and move them around

5) Final list of recommended management actions

- Happens after SEFCRI review and public comment

Notes from discussion on worksheets for listing and prioritizing:

- The public will be able to provide input on management actions through public comments and speaking with their stakeholder representative, but actual voting will be held by the community working groups
- The SEFCRI team, TAC, and PPT will all review the initial list of management recommendations as well as the prioritized list

- You will be provided with information on cost, feasibility, and other aspects of each management recommendation
 - SEFCRI members will work with you throughout the whole process

1:35 PM – Management Case Study – Hawaii

Speaker: Hudson Slay, US EPA

Watershed Management activities in West Maui

- Driven by coral decline from mid 1990s to 2000s
 - During this time period coral reefs declined and then leveled off
- Ridge to reef approach
 - Looking at everything from the top of the mountain out to reef with emphasis on land-based sources of pollution
- 2 priority watersheds identified: Waikuli and Hoowakah watersheds
 - Progression of activities at different elevations (from highest to lowest elevation):
 - Forested area on mountains
 - Issues with feral ungulates in vegetated uplands
 - Transitional area
 - Agricultural lands
 - Lots of sugarcane and pineapple agriculture – sugarcane ended in mid 90s and pineapple plantations ended in 2000s
 - Suburban developments
 - Resort developments along fringe (coast)
 - Resort lies right along the coast with many golf courses
 - Watershed is very steep and very short

West Maui Ridge to Reef (R2R) Initiative

- Encompasses 5 watersheds focusing on 2 priority watersheds (Waikuli and Hoowakah)
- Program has a watershed coordinator, local working group, funding and agency support team, and ridge to reef support team
 - Includes west Maui management watershed partnership – deals with feral ungulates
- Threats
 - Landscape chemical runoff
 - Soil erosion after wildfires
 - Rainfall is sporadic
 - Vegetation to hold sediment is destroyed in fire and then sediment is washed downhill
 - Dam that does not trap fine particles
 - Some dams were constructed to deal with particles from farms but do not trap fine sediment (which is most harmful to corals)

- Eroding agricultural roads
 - Lands are used infrequently – problems with maintenance and erosion
- Bare ag fields – allowed to go fallow
- Waste water reclamation facility injection well discharge
 - In one watershed, and injection well allows 14million gallons of secondarily treated wastewater into nearshore waters around corals
 - Relatively nutrient rich
- Urban pollutants in runoff
 - In Maui there are no stormwater permits because population does not meet the population threshold to require them

Goal of R2R initiative

- Enhance health and resiliency of all watershed resources

Key to accomplishment – Development of watershed plan and significant levels of funding available for implementation of projects by R2R partners

- Projects
 - Demonstration rain garden and workshop at county park
 - Involves community in training program
 - Reef friendly landscaping
 - Working with resorts to help them reduce pesticides and fertilizers
 - Post fire rehab planning
 - Workshops to decide what rehab should look like, needs
 - Pilot curb inlet basket installations
 - Assist with stormwater runoff containment (trash and debris)
 - Honokowai slope stabilization
 - Honokowai dam #8 retrofit analysis to reduce flow through of fine particles
- Top accomplishments
 - Best management practices for agricultural roads
 - Formalized support structure
 - Collaborative effort: working group comprised of local stakeholders, NGOs, agencies – work with watershed coordinator, receive assistance from funding and agency support team and support from Ridge to Reef support team
 - Central watershed coordinator is essential
 - Multi level outreach approach
 - Newsletter and mailing list
 - Meetings and presentations
 - Website
 - Newspaper articles
 - Outreach is assisted by R2R partners
 - West Maui is one of 3 priority watersheds of the US coral reef task force so attention from that group has helped

- Community empowerment: West Maui Kumuwai campaign – giving people a way to help protect coral through projects, creating a set of ocean preferred lawn care products and educational products
- Role of monitoring
 - Key component to tracking effectiveness and understanding dynamics
- Barriers to implementation
 - Limited county resources
 - Challenges ability to prioritize natural resource stewardship if staffing and funding are already maxed out
 - Landowner constraints
 - Lack of staff, capacity, equipment, and funding
 - All have been reduced since the end of plantation agriculture
 - Liability concerns
 - Landscape is in transition from farming to housing
 - Switching from ag to development = facing potentially a different set of problems
 - Bureaucratic hold ups
 - Lengthy processing times for grants and securing permissions
 - Problems with permitting requirements

Lessons learned

- Relationships are critical
 - Collaboration is key to magnifying each input of energy, knowledge, and funding
- Rolling implementation improves engagement (adaptive management)
 - You may not have the clearest answers about how to solve problems
 - The ability to undertake rolling implementation while continuing the planning is key to keep community engaged
- Expect delays
 - Everything takes longer than expected

Recommendations for future watershed efforts

- Having some science in place prior to planning is very helpful
- Having a willing and able group of researchers who can conduct monitoring and research
- Establish dedicated staff and supporting committees
- Consider expansion to additional watersheds if the contributing threats cross out of the boundaries (ecosystem based management)
- Scope and budget for watershed management plan to be as “actionable” as possible
 - DO NOT MAKE A PLAN THAT SAYS DO MORE PLANNING. DO NOT!!!!
- Integrate watershed management activities with inshore activities
- Make sure land based pollution projects are prioritized based on highest priority of marine resources

www.westmauir2r.com

Notes from discussion on West Maui watershed management

- One of the major issues this project faced was implementing best management practices for agricultural operations because compliance and implementation were voluntary

2:35 PM – Management Case Study – Florida Keys National Marine Sanctuary

Speaker: George Sedberry – SE Region Science Coordinator, NOAA Office of National Marine Sanctuaries

NOAA organization

- Department of Commerce
 - National Oceanic and Atmospheric Administration (NOAA)
 - National Ocean Service
 - Office of National Marine Sanctuaries (ONMS)

National Marine Sanctuary System

- 13 national marine sanctuaries and 1 marine national monument
- Managed by NOAA Office of National Marine Sanctuaries
- Marine protected areas
 - Definition: “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.” – International Union for Conservation of Nature (IUCN)
- National Marine Sanctuary - “Areas of the marine environment with special conservation, recreational, ecological, historical, cultural, archeological, or esthetic qualities...”
- National marine sanctuaries are flexible in terms of regulations
 - Often focused on natural resources, some focus on cultural resources
 - Resource protection is done in a manner to facilitate public and private use of those resources

National Marine Sanctuaries Act

- Directive: “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”
- 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...”
- Objectives:
 - Improve the conservation, understanding, management, and wise and sustainable use of marine resources

- Enhance public awareness, understanding, and appreciation of the marine environment
- Maintain for future generations the habitat and the ecological services, of the natural assemblage of living resources that inhabit these areas

Marine Sanctuaries in Florida (1975-1990)

- Key Largo NMS – designated 1975 (353 sq km)
- Looe Key NMS - designated 1981 (18 sq km)

Florida Keys National Marine Sanctuary – established by US Congress 1990

- Congressional establishment driven by series of major ship groundings
 - 3 occurred in a 17 day period between Oct-Nov of 1989
 - Concern of ship groundings coupled with Exxon Valdez spill spurred push to expand sanctuaries around the entire Keys
- 2900 nm² / 9800 km²
- Jurisdiction to mean high tide
- Surrounds entire Florida Keys
 - Co-trustee Management with State of Florida
 - 60% State Waters
 - 40% Federal Waters
- 1600 Keys / 1800 miles of shoreline
- Marine Sanctuary “firsts”
 - Congressionally designated Sanctuary
 - NMS to totally surround a community
 - Have emphasis on Ecosystem management
 - Area To Be Avoided 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
- Immediate forms of protection
 - Area To Be Avoided (ATBA) – International Maritime Organization - IMO designation applies to vessels over 50m)
 - No exploration for oil and minerals
 - Water quality protection program (EPA/State/NOAA)
 - Authorized high level water quality steering committee
 - Chaired by regional director of EPA
 - Co-chaired by state (FDEP)
 - Identify problems/take corrective actions
 - Establish water quality, coral, and seagrass monitoring programs
- Directed NOAA to develop integrated sanctuary management plan that considers “temporal and geographic zoning”

- Law was specific about community involvement in development of the sanctuary
- Coastal and Marine Spatial Planning
 - No oil and gas development
 - ATBA
 - Only 2 ship groundings since designation – both occurred right after designation
 - Particularly Sensitive Sea Area (IMO designation – put sanctuary on international nautical charts)
 - Marine Zoning
 - Sanctuary-wide No Discharge Zone
- Sanctuary encompasses full range of seascapes and species

Threats to coral reefs

- Climate change (cannot be reversed, management must consider this)
 - Massive temperature-induced bleaching events
- Land-based Sources of Pollution
- Habitat loss and degradation
- Overfishing (has been reduced but still occurs)
- Multiple stressors affecting coral reefs and having cumulative effects

Challenges

- No single point of entry
- 26,461 registered vessels
- Diverse audiences (residents/tourists from all over)
- Resource damage (direct and indirect impacts)
- Lack of awareness

Environment and Economy are inextricably linked in the keys

- Tourism based economy
 - Dive tourism in Key Largo
 - Fishing tourism in Islamorada
 - Crazy party tourism in Key West
 - 739,000 people snorkeling and diving
 - 416,000 people fishing
 - 620,000 people/yr viewing wildlife
 - Cruise ship landings have increased over past two decades
 - Many come to dive and snorkel
- Commercial fishing is second largest industry in the Keys
 - Shrimp, spiny lobster, stone crab, fin fish
- 7.5 million visitor days = a lot of people spending a lot of time on the reefs

Zoning to regulate activities

- “The setting aside of areas for specific activities to balance commercial and recreational interests with the need for a sustainable ecosystem.” (FKNMS Management Plan, 1996)
- Keeping activities in certain zones reduces user conflicts and protects resources
- 5 Zone-types
 - Preservation areas and ecological reserves (no take)
 - Wildlife management areas (access, speed, and boating restrictions)
 - Research only areas (restricted access)
 - 94% of sanctuary is general use
- Sanctuary preservation areas
 - 18 of them
 - Cover shallow heavily used reefs – historically areas of user conflict
 - Concentrated visitor activity leads to resource degradation
 - These are no take areas
 - Reduce user conflicts in high-use areas
 - Sustain and protect habitat – enhance reproductive capabilities of renewable resources
- Research only areas
 - 4 set aside (permitted entry only)
 - Scientists can study how reefs function with reduced human impact (provide baseline information)
- Ecological Reserves
 - 2 large areas: Western Sambo and Tortugas (includes spawning aggregation sites for mutton snapper and other species)
 - Larvae are carried onto other areas of reef by currents and gyres
 - Areas of high habitat and species diversity
 - Representative keys marine ecosystem
 - Provide natural spawning, nursery, and permanent residence areas for the replenishment and genetic production of marine life
- Wildlife management areas (WMA)
 - 27 WMAs (19 with USFWS) protect bird nesting and turtle nesting beaches and other sensitive habitats
 - Protect endangered or threatened species and their habitats
 - Modes of access (i.e. boat engines, etc.) are managed
 - Reduce user conflicts (eg. Flats fisherman vs. jet skis)
- Existing management areas (independent of sanctuary)
 - Areas of local, state, or federal jurisdiction
 - Sanctuary rules do not usurp existing rules – enhance them in many instances

FL Keys zoning changes (New marine zoning process underway)

- Sanctuary Advisory Council representatives and volunteers lead efforts
- This is a public process to solicit public input on any modifications
 - Sanctuary advisory council solicits public input and looks and rezoning
- Process is currently underway (staff analysis and document prep happening right now)

FLKNMS science and research

- Damage assessment
- Restoration
- Permit Review
- Research support
- GIS

Buoys

- First install in 1981
- 490 mooring buoys (avoid direct physical impacts to reefs)
- 121 SPA zone buoys (delineate no take areas)
- 160 WMA buoys
- 37 informational buoys

Education and Outreach

- Programs for user groups school groups, etc.
- Several programs that certify businesses that use the sanctuary in a sustainable manner and/or educate sanctuary users
- Volunteer activities
- Outreach through social media, regular media, and website

Enforcement

- Florida Fish and Wildlife Conservation Commission (FWC) - Primary Authority
- US Coast Guard (USCG)
- National Oceanic and Atmospheric Administration, National Marine Fisheries Service Office of Law Enforcement (NOAA/NMFS OLE)
- US Fish and Wildlife Service (USFWS)

www.floridakeys.noaa.gov

Billy.causey@noaa.gov

Sanctuary nomination process

- FLKNMS was mandated by congressional legislation, however most sanctuaries are designated by the US Secretary of Commerce
- NOAA is most interested in establishing sanctuaries through public input
 - Recently established a new nomination process whereby citizen groups can nominate new sanctuaries
 - Many citizen groups have already requested that an area be designated as a national marine sanctuary (ex. Northeast Florida – protection for migrating whales)
- Nomination process history
 - First established in late 1970s

- Was slow (site evaluation list process in 1983)
 - SEL deactivated in 1995 to focus on management of existing sanctuary system
- Interest in new national marine sanctuaries is diverse and widespread
 - Already several requests for additional sites and boundary expansions
- Community-based approach to sanctuary nomination
 - National Marine Sanctuaries Act requires community involvement in establishment of new sanctuaries
 - New approach replaces Site Evaluation List with community-based, criteria driven proposals
 - Stakeholders will work together to build engagement and solicit nominations for areas as new 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
 - All nominations will be made public via a designated website
 - An accepted nomination does not equal a new sanctuary
 - Formal designation takes place through a separate public process that can take years to complete

What can you do:

- Familiarize yourself with the process
- Know the benefits and needs of the sanctuary system
- Engage with interested communities (OFR)
- Raise awareness in those that may not be aware
- Support (directly or indirectly) future nominations
- Talk to your member of congress

Proposed new FL/SE US sanctuaries

- NE Florida
- Submerged Cyprus Forest (Alabama)
- USS Hatteras (Texas)
- Monterrey Shipwrecks (Texas)

Roadmap to sanctuary creation

- 1) Community builds public support for nomination and submits to NOAA
- 2) NOAA contacts group to get more info
- 3) If nominated, there will be a designation process to solicit public input
- 4) If designated, a management plan will be created

www.nominate.noaa.gov

Notes from discussion on Florida Keys National Marine Sanctuary:

- The new sanctuary nomination process is designed to create NEW sanctuaries – it would be easier to create a new sanctuary in the SEFCRI region than adding on to the Florida Keys National Marine Sanctuary
- The nomination process is open ended and there is no deadline
 - There has already been a flurry of interest in creating sanctuaries on the east coast to prohibit oil and gas exploration because the Obama administration recently opened up oil and gas exploration on the east coast
- In the Keys beach nourishment is managed by the state and USACE – sanctuary regulations manage the source and timing of sand, but cannot regulate anything above mean high water
- Enforcement of sanctuary rules is difficult - enforcement agencies want easy to enforce zones, but users want the smallest enforcement zones possible
 - Enforcement in the Florida Keys has improved because of GPS and people now know where the zones are
 - Enforcement by the public (self-reporting) is high when people understand why those rules exist
- Sanctuary management is adaptive - every five years sanctuary management plans are revisited and require public input to see what is working and what is not
 - There is also a sanctuary status report on effects of the sanctuaries
 - These assessments rely in large part on research by local partners who conduct research on sanctuary conditions and effectiveness
- The timeline for the entire nomination process is still unclear
 - The nomination for NE FL has taken two months
 - It will be submitted to NOAA and it will probably take about 9 months to review it

2:35 PM – Caribbean Management Case Study

Speaker: James Byrne, The Nature Conservancy

2 cases: Cayman Islands and Grenada

- Different situations and process involving marine spatial planning and community based management

Sandy Island/Oyster Bed MPA, Carriacou, Grenada

- Project focused on an area in NW Carriacou
- Local community observed decline of fishery, coral reefs, and oyster beds
 - Fisheries and oyster beds are culturally important
- They asked the government to help them create a marine park with a management plan
 - Project partners:
 - Carriacou Environmental Committee

- The Nature Conservancy
 - Grenada government
 - Caribbean Regional Environmental Program
- MPA planning process
 - Created a stakeholder working group
 - Held management planning workshops
 - 3 workshops:
 - 1) Building the vision and setting the foundation
 - 2) Understanding the human dimension
 - 3) Designing solutions
 - A wide range of stakeholder participation in the workshops
 - Everyone participated and was very passionate
 - Women's group participation – felt overwhelmed and like they didn't have much to offer
 - Were able to provide crucial data – observed that they'd seen a change in the fish market (had to buy more smaller fish than few big fish)
 - Workshop steps
 - Select priority conservation areas: coral reefs, sandy beaches, offshore islands, mangroves, seagrass, oyster beds
 - Used a satellite image – asked stakeholders to show where coral reefs are and assess their condition (local knowledge was the only available data)
 - TNC conducted site surveys and backed up this data with scientific data (local knowledge was extremely accurate)
 - Working groups then determined why these conditions existed – assessed threats
 - Created objectives and strategies
 - 18 objectives defined
 - Developed strategies for achieving each objective
 - First created a zoning plan (protect reef fish in inshore area, make no take zones around islands, gear restrictions in pelagic areas) – enforcement was an important consideration
 - Created a funding plan because the government did not have the money
 - Gathered more input from fishermen
 - Attendance by fisherman was very poor –the working group still needed more input from fishermen because they were most affected
 - Most fishermen were out fishing during the day while the meetings were being held
 - Instead, TNC set up meetings across the island in the afternoon at the local rum shops where fishermen gathered after work

- The key to getting them on board was telling it as a story (resources, poor conditions, solutions)
- Oldest fishermen were the statesmen of the groups – understood the problem quickly because they remembered what the reefs used to be like
- Youngest fishermen understood the problem because they'd grown up learning about conservation
- Middle aged fishermen were hardest to convince because they had to fish to provide for their families
 - Fishermen didn't like the zoning map– they all wanted one zone (a no-take area) just to make it easier for them know where they can and can't fish
- Management and funding plans passed through the legislature very quickly
 - The management plan was set up in an adaptive manner so it could be modified if it was not shown to be effective
- New interpretive signs were worded in a positive way (very important with the local community)

Darwin Initiative to enhance an established MPA system in the Cayman Islands

- Cayman Islands overview
 - Cayman Islands is a rich country (UK overseas territory)
 - Comprised of three relatively small islands (1/4 size of Bahamas)
 - Locals are very dependent on marine resources
- 1996: Cayman Islands created a system of marine parks
 - TNC was the first to assess its effectiveness
- Known threats to coral in 1986:
 - Overharvesting of conch and lobster
 - Ongoing coastal development
 - Anchor damage and other human threats to coral reefs
 - Lots of user conflicts (divers vs. fishermen) – this was key factor in creation of marine parks
- Marine Park zonation
 - Wildlife interaction zones (no fishing)
 - No diving zones (no diving)
 - Other zones (general use, etc.)
- Reefs continued to decline in the marine parks – parks worked well separating uses, but weren't designed to protect coral reefs
- Threats to coral today (i.e. causes of decline)
 - Continued population growth
 - Increased fishing pressure
 - Ongoing coastal development
 - Climate change – NEW
 - Invasive species - NEW
- Marine park review process

- Scientific studies
- Assessment of current threats
- Review of international recommendations and Best Management Practices (BMPs)
 - Protect 40-50% of each habitat within no-take marine reserves
 - Numerous reserves broadly distributed
 - Protect spawning sites/nurseries (were not previously protected)
 - Protect healthy areas and keystone species
 - Permanent protection
 - Size each reserve according to natural range of key species
 - Protect healthy areas/avoid high risk areas
 - Use temporary closures in addition to reserves
 - Include enforcement considerations (enforcement groups wanted no-take areas because they would be easier)
- Initial public input
 - Introduce project and share research
 - Ask for public's views on marine environment and conservation for the future
 - Conduct surveys and hold meetings
- Design enhanced system of marine parks
 - Marine spatial planning
 - Map out all the data
 - Develop most efficient system of marine reserves using computer program
- Further public consultation for input (the MPA review group knew the communities would not be ok with the high level of protection – wanted to make modifications based on community input)
 - Worked with local legislators to use their office as point of contact to collect the changes people wanted to see
 - Legislators presented to the review group the desired changes from their constituents
 - Review group facilitated meetings for the legislators to present the changes back to community
 - Ensured political backing by helping legislators gain support from their constituents
- Incorporation of all feedback where possible
- Last Steps
 - Cayman President got arrested for embezzlement –last June
 - Review group had to reeducate new politicians and make sure they were on board
 - Is currently holding new public meetings
 - Will complete process (hopefully) next fall
- Key Factors
 - Created new fishing corridors for line fishing only

- Buffered by protected areas
- Created more no diving zones
 - Many no fishing and no diving sites are over spawning areas
- The key was planning to accommodate multiple uses (including the environment)
 - Extractive use areas are just as important

Notes from discussion on Caribbean case study:

- Both MPAs in Grenada and the Caymans routinely report on their progress to the community
- Ways that MPA planning processes fail:
 - Expecting a particular outcome from a managed area that was set up for a completely different purpose
 - i.e. the Cayman Islands marine parks were considered a failure because they didn't protect coral reefs but they weren't designed to do that – they were designed to reduce user conflicts
 - Not involving the right people will destroy an initiative – not involving the community, not gaining political support, not involving fisherman

4:05 PM – Shifting Baselines in the Southeast Florida Recreational Reef Fishery

Speakers: Catherine Brady and Dana Wusinich-Mendez, NOAA

Baseline: minimum or starting point used for comparisons

- A baseline is an important reference point to measure the health of ecosystems
- A point against which to measure change
- If we know the baseline for an ecosystem, we can work to restore it

Shifting Baseline: the chronic, slow, hard to notice change in things

- If our baseline starts after degradation has started, restoration will only revert to a past degraded state
- People's baselines generally go back to the best that they can remember, but natural changes occur on much longer timeframes

www.shiftingbaselines.org

Shifting baselines in SEFCRI region

- Purpose of project: document shifting baseline in the recreational reef fishery in SEFCRI region through photographic records
 - A similar study in the keys shows that mean length and weight of recreationally caught reef fish have declined and species composition has changed
- Methods: used pictures from fishing clubs, charters, seafood restaurants, etc.
- A good day fishing (then and now)

- West Palm Beach: large amber jacks and groupers
- Fort Lauderdale 1930: Nassau grouper and black grouper (now both very rare in FL – 0 black grouper found in a recent study)
- 1939 fort Lauderdale: very large snapper (today, most snappers are 1/3 that size)
- Bahia Mar: Warsaw groupers (still caught today but much smaller – these are slow growing long lived reef fish)
- Pier 66: People used to catch warsaw grouper but have been forced to switch to amberjacks (previously considered trash fish)
- SE Florida baseline (today): species diversity is good, but number of fish caught and size of catch is significantly smaller
 - Fisherman are targeting different fish now
- One happy story - recovery of goliath grouper thanks to protection from FWC

Notes from discussion on shifting baselines in SEFCRI region:

- This presentation gives us a visual representation of what we've found in scientific studies
- When we see the reproductive capacity of large bodied fish, this shows us the benchmark for what we should strive for

4:30 PM – Homework/Activities for next Meeting

Next meeting is Wednesday, September 24th at Indian River State College in Stuart

Activities for next meeting:

- Start listing management actions
- Decide as a group whether they meet the quality check via formal vote
- Decide if there is anything that needs to be added to the Tier 2 worksheet

Homework:

- Review the Tier 2 worksheet and decide if anything needs to be added to it
- Write your management actions! (Write them on the beige Management Action Template form using a SHARPIE
 - Please write using LARGE BLOCK LETTERS

Action Item: CRCP will make the management action template available online