

**Florida Keys National Marine Sanctuary
Marine Zoning & Regulatory Review
Ecosystem Protection: Ecological Reserves / Preservation Areas and Wildlife Protection
May 13 & 14, 2014**

Working Group Meeting Summary

Meeting Agenda – May 13

1. Review of agenda and objectives
2. Discussion: Considerations for the Lower Keys Region
3. Presentation: Orientation to the Lower Keys Region
4. Presentation: Human use Data Available for the Lower Keys Region
5. Discussion: Sharing of local knowledge
6. Presentation/Discussion: Natural Use Data/Analysis for the Lower Keys Region
7. Discussion: Highlights from small group discussions
8. Public Comment

Meeting Agenda – May 14

9. Welcome back and review agenda for day two
10. Working Group Discussion: Round-robin suggestions for the Lower Keys Region
11. Discussion: Suggestions proposed and settling on preliminary recommendations
12. Public Comment

Meeting Summary – May 13

1. Review of agenda and objectives
 - Welcome:
 - Absent working group members: Mark Chiappone, David Vanden Bosch, and Tim Grollmund
 - Objectives:
 - Review of working group's primary objective: Recommend new or modified marine zones to ensure protection of a diversity of resources, including spawning aggregations and the full suite of marine flora and fauna to be presented to the Sanctuary Advisory Council.
 - Review of Lower Keys Region meeting objective: Recommend new or modified marine zones for the Lower Keys Region based on ecological and human use data, local knowledge, and current zones.
 - Schedule:
 - The overall schedule is a series of six 2-day meetings to be completed in July 2014. For dates, locations, and agendas see: <http://floridakeys.noaa.gov/review/reserves.html>
 - This is the fourth meeting for this working group and the third regional meeting focusing on the Lower Keys region.
 - Day 1 Objective: to build as complete a picture as possible of the Lower Keys region by combining results from biological and human use studies with

members' local knowledge. Use this information to begin considering options for marine zones in the Lower Keys region.

- Day 2 Objective: discuss options, and develop recommendations for the Lower Keys region
- Last 15 minutes of each day is reserved for formal public comment. An additional half hour is set aside on both days for the public to interact with working group members. Written public comments are always welcome.
- The goal for this meeting is for the working group to reach consensus on recommendations for new or modified marine zones in the Lower Keys region; however if full consensus is not possible majority and minority opinion will be captured and included in the recommendations that are forwarded to the Sanctuary Advisory Council.

2. Discussion: Considerations for the Lower Keys Region

Working group members were asked to share their interests and objectives for the Lower Keys region including what they care about considering, protecting, and valuing in this region. The following bullets are the statements made by individual working group members.

- Requested additional data for Western Sambo Ecological Reserve, Middle Sambo and Eastern Sambo. These areas are close together and represent three different levels of closure/management. Would like to know how these areas compare to one another from an ecological and natural resource perspective.
- Noted that tourism and fishing are huge sectors in the Lower Keys region. Key West is a central point for these activities. Will need to consider intense use of areas around the island of Key West.
- Noted the need to consider user groups and potential user conflict in the Western Sambo Ecological Reserve. Discuss what is allowed/what is not allowed and what should/should not be allowed.
- Requested more information on Coupon Bight Aquatic Preserve and other managed areas in the region including the National Wildlife Refuge. What does "managed" mean in each of these areas.
- Requested that Looe Key Existing Management Area and what activities are excluded (spearfishing and marine life collection) be reviewed.
- Noted the impacts of human interaction and tourism and increasing number of people visiting and relocating to the keys. Noted that the tourism model in the Lower Keys region is different than in other regions in that most are longer term visitors rather than short term. Concern with influx of people and where they will go.
- Noted that decisions made through this process could impact tourism in the Keys.
- Interested in coral restoration and how to effectively support this in a tourist economy. Noted a need to address permitting for coral restoration.
- Noted a jet-ski issue in back-country and National Wildlife Refuge; difficult boundary to enforce, would like to simplify.

- Consider reconfiguring the boundary of Western Sambo Ecological Reserve.
- Noted that this region looks like there are a lot of existing managed areas. Interested to learn more from the users in this region.
- Noted areas closed to lobster trapping and the discrepancy between not allowing trap gear but allowing anchoring. Would like to consider simplifying this and creating equity/fairness.
- Noted action taken by the Sanctuary Advisory Council related to personal watercraft in and around the Key West area; requested this information be provided to the working group for what the Sanctuary Advisory Council recommended be evaluated in the Draft Environmental Impact Statement.

3. Presentation: Orientation to the Lower Keys Region

Overall spatial and informational orientation to the Lower Keys region including existing managed areas and regulations was presented. A map showing the existing management areas can be found at:

<http://floridakeys.noaa.gov/review/documents/20140513managedareaslowerkeys.pdf>

Working Group Questions/Comments:

- Noted the Coupon Bight Aquatic Preserve is managed by the Florida Department of Environmental Protection's Coastal Office. A Management Plan was implemented in 1992. No formal rule or legislation has been passed related to personal watercraft use in Coupon Bight. Personal watercraft are not banned in any State aquatic preserve; however any guidance for vessel use (e.g idle speed only, no motor) have to be followed.
- Noted that lobster trapping is allowed in Looe Key Existing Managed Area, but is not allowed in the Fishery Management Plan Areas Closed to Lobster Trap Gear. This is relevant for the FMP Areas Closed to Lobster Trap Gear that are located within Looe Key Existing Managed Area.
- Noted that there is a City of Key West Marine Protected Area off of Casa Marina east to around Higgs beach. This zone is designed to protect swimmers and snorkelers. Idle zone only corridors are present.

4. Presentation: Human use Data Available for the Lower Keys Region

Spatial information of available human use data for the Lower Keys region was presented. Working group members were then asked to share additional local knowledge. The presentation can be found at:

<http://floridakeys.noaa.gov/review/documents/20140513humanuse.pdf>

5. Discussion: Sharing of local knowledge

Public attendees were given the opportunity to share their knowledge, concerns, considerations, and suggestions for the Lower Keys region with the working group members. The working group members were asked to share additional local knowledge related to human use.

Working Group Questions/Comments:

- Noted that the “all fishing” data seems low in the area directly adjacent to Western Sambo Ecological Reserve. This is likely due to the fact that the data is analyzed on a grid pattern and the grid cells adjacent to Western Sambo Ecological Reserve include area within Western Sambo Ecological Reserve, which would skew the value lower due to no fishing occurrence in Western Sambo Ecological Reserve.
- Noted that the spiny lobster fishing data is likely underestimated between the Eastern Sambo Research Only Area and the shoreline.
- Noted that Hawks Channel and further east is heavily fished for spiny lobster. The data shows fishing effort is lower than expected.
- Noted that there will be a certain amount of inaccuracy due to the number of survey respondents (292 out of 1200 fishers that held a Salt Water Products License in 2005)
- Noted that for stone crab fishing, there are a lot of smaller boats fishing close to shore that may not be fully captured in the data.
- Noted that for Snapper Grouper complex, the data makes sense along the reef tract but not north of Key West. The bayside area is focused on flats fishing species.
- Noted that fish data shown are commercial fishing and do not capture recreational fishing effort.
- Request that recreational charter fishing overflight data be analyzed more closely to determine where really high intense use is and how that might change the analysis of use overall.
- Request to see data provided from Bone Fish Tarpon Trust to enhance data available for fishing use in the near shore and back-country area. Noted that in small break-out groups these data could be reviewed.
- Noted that diving and snorkeling data seems low for the Western Sambo Ecological Reserve area. Working group member provided information on use. Heavy use to the southwest of Western Sambo Ecological Reserve for artificial reef, shipwrecks, and Toppino Buoy. Noted that the Vandenberg was not in the area when data was collected. Staff clarified that the study was focused on the use of the Ecological Reserves, Sanctuary Preservation Areas, and the Wildlife Management Areas, therefore the data collected for diving only represents the use of those areas, not the whole region.
- Working group member shared a recent experience of diving in Thailand where diving is unregulated and noted that the quality of diving was low. Used this example to promote proactive management in the Keys to control access to ensure an enhanced diving experience; however need to also consider business aspects. Do not want to put anyone out of business.
- Noted previous discussions about limited access for fuller range of commercial activities, not just diving. Could serve to promote value of experience and business.
- Noted that commercial fishing industry has been regulated well by both State and Fishery Management Councils. It is now time to look at other activities including recreational fishing, diving and other recreational activities.

- Request a capacity study for how many people could be in the zones and what the associated impacts to resources are; consider taking a certain number of Sanctuary Preservation Areas in each of the regions and close to use, use as a control area to assess capacity and impact.
- Question regarding how many business are already in the Keys to determine change over time and potential impact if implement a limited use program.
- Recognize cause and effect of every regulation put in place. Provided example of how Grouper is protected four months out of the year and then when opened, there is impact to the fish. Need to make sure regulations make sense.
- Noted importance of education and enforcement.
- Consider having each business operating in the Sanctuary required to have a sticker or some other mechanism to track use. This could be free to start and possibly over time could have a fee and/or could determine if use should be limited.

6. Presentation/Discussion: Natural Resource Data/Analysis for the Lower Keys Region
 Natural resource data for the Lower Keys region was presented. The presentation can be found at:

<http://floridakeys.noaa.gov/review/documents/20140513naturalresources.pdf>

Preliminary analysis of the natural resource data was done to support the group's deliberations. This analysis was presented followed by a discussion by the working group regarding additional analysis needed and how to use the data and analysis to begin considering options for marine zones in the Lower Keys region. The following data analysis queries were presented to the working group (and can be found in the Natural Resource Data presentation):

- How much area is currently within marine zones?
- How are habitats distributed within existing marine zones?
- Where are the locations of high structural complexity relative to marine zones?
- Where are locations of spawning aggregations?
- What proportions of threatened coral species (staghorn, elkhorn, and pillar coral) are present in marine zones?
- Where are the locations of resilient reefs and how much are captured in existing marine zones?
- Where are the locations of high abundance and diversity of fish, stony coral, and soft coral?

Working Group Questions/Comments:

- Requested information on potential spillover effect from Western Sambo Ecological Reserve
- Question regarding dates for coral observations: Elkhorn and Staghorn data are from 1996 – 2011, noted that in small break-out groups individual year and data sets could be reviewed; Pillar coral data is from 2013.
- Question regarding process and time-frame for species to be listed and/or delisted from the Endangered Species Act. Response that it is an involved process including

species recovery plan, could include petitions to list or delist, a demonstrated need and/or change in species status.

- Noted that “all fish” species richness data includes a large variety of species. Noted that in small break-out groups specific fish species could be looked at more closely.
- Noted that at Western Sambo Ecological Reserve inshore patch reef area seem to not be capturing resilient reef areas. Resilient reef areas are present to the east of the existing zone.
- Noted that from the data presentations it seems that things are actually getting better in the zones
- Noted that Western Sambo Ecological Reserve was likely the best they could do when the management zones were first implemented. This area was low use and low resource area, adjacent to a public shoreline (Navy property). Noted that Ecological Reserves were intended to run from shore to reef during the first management plan. Western Sambo area has good natural resources including mid-channel patch reefs, healthy and resilient coral and still doesn't get a lot of use. The use in the area may change if we zone the area.
- Noted that in the Lower Keys there is a lot going on and any human use is going to have some negative impact. If we find the best areas to pick, we should see a benefit to protecting the right areas.
- Questioned adding additional layers of protection when the areas are thriving with no existing protections. If we are going to protect an area, then everybody gets excluded. No diving, fishing, etc. If we want results, take an area that actually produces and keep everybody out.
- Noted a recent article that highlighted why protected areas are failing: because they were set up to negotiate and appease users. The areas weren't enforced to protect something specific. We need to intelligently design something that makes the most sense.
- Noted that a lot more use occurs when an area is designated on a map as 'special.'
- Noted that mid-channel patch reefs don't get much fishing and diving pressure. Low visibility and fish tend to be smaller there. I see more abundance and resilience in 30 feet of water. Low use of these areas leads to the better health of the resources.
- Comment on Fish aggregations slide that some of those areas are not 'sexy'. Can't sell a trip (charter) out there. Everybody thinks I have to go west. The snowbirds are fishing the nearshore good areas, anchoring in sand. Nobody else (charter fisherman) goes there because they don't get the boat ride experience going on short trips like that.

7. Discussion: highlights from small group discussions

The working group broke into two break-out groups to work more closely with the data presented and to begin considering potential options for marine zones in the Lower Keys region. One spokesperson from each group reported the results of their discussions:

- Group One – Identified several potential options for the Lower Keys region including:
 - Looe Key and suite of zone types in the area – consider simplifying the zoning in this area.
 - Western Sambo Ecological Reserve – consider extending to the deeper reef, will also capture the Gray Snapper fish spawning aggregation site just to the south.
 - Western Sambo Ecological Reserve – consider extending to the deeper reef, will also capture the Gray Snapper fish spawning aggregation site just to the south and consider moving the inner boundary south to allow use in the near shore areas.
 - Mid-channel patch reef area in the vicinity of West Washer Woman – consider creating a zone in this area where coral reef resilience is high, there is high coral cover and richness, and there is medium to high fish species abundance.
 - If zones are created, ensure that zone performance is monitored over time.
- Group Two – Identified several potential options for the Lower Keys region including:
 - Western Sambo Ecological Reserve – consider shifting this area slightly to capture a broader range of resources including fish species, coral, and resilient reefs. This shift could also capture the existing Eastern Sambo Research Only Area. This option allows something positive for natural resources without too much economic impact. Consider extending a portion of this area to the deep reef. Recommend that this area be closed to all uses. Area truly set aside that can be monitored.
 - Looe Key Existing Management Area – consider removing ban on marine life protection.
 - System wide – no anchoring in Areas Closed to Lobster Trap Gear, language could be no bottom tending gear.
 - Coupon Bight Aquatic Preserve – consider getting rid of this managed area.
- Note: Some public attendees also discussed their knowledge of the Lower Keys region and made comments on a map that was provided during the breakout group time. The following are their comments:
 - Western Sambo Ecological Reserve doesn't seem to be better off than the areas outside and the Ecological Reserve should be done away with. There are areas within the current zone that fisherman could fish without causing injury to resources and they should be allowed access to this area.
 - Since current zones (i.e. Western Sambo Ecological Reserve) don't seem to make a difference in coral/fish populations, no additional zones should be created.

- Mooring buoys concentrate users that aren't aware of the significance of the resources around the buoys. The concentration of these users causes significant injury to the resources present.
- Would like to see less mooring buoys that are concentrating uses that cause injury to resources present.
- From American Shoal to Western Dry Rocks, the only area near-shore to catch ballyhoo using nets (due to net ban in state waters) is the area of federal waters due south of Key West. Do not create closed areas in this area.
- The buoys near the southern end of Western Sambo Ecological Reserve are highly used.
- Consider how may be displacing current users when/if recommending new areas. Where will people go?
- If a zone is closed to one type of user it should be closed to all.
- There should be no special permits to allow certain users to access certain zones.
- Explore limiting the carrying capacity of use in current zones.
- Consider establishing catch and release area in the northern end of Western Sambo Ecological Reserve.
- Consider allowing catch and release in potential new zones. Economic study by Bonefish Tarpon Trust shows that the flats fishing industry contributes \$365 million per year to keys economy.
- The agreement between personal watercraft users and guides in Key West is working well. Restrictions in the backcountry area should remain in place to prevent additional user conflicts.
- Consider extending Western Sambo Ecological Reserve out to approximately the 90' depth to include areas like the "Bar".
- Need to have more education of all boaters using the keys, especially rentals.
- Consider gulf side fishing activities and displacing those users if any areas on the gulf side are considered for new zones.
- Too much emphasis is placed on the main reef and not enough attention to inshore patch reefs.
- Address spawning aggregations with lower bag limits rather than static marine zones.
- No take zones create a haven for lionfish

8. Public Comment

Public comment was provided by five individuals.

- Lee Starling, Independent/Commercial Fisherman
I have an intimate knowledge of the inshore patch reef area. These areas produce fish some of the time, not all of the time. A good majority of fish are caught in the harbor. I caught large muttons in the harbor all in a matter of 45 minutes. You (Sanctuary) made it easy for me to kill grouper. Fish leave areas depending on

currents. The big fish come swimming out of the areas. They travel a lot. Sanctuary zones that are static do not work. You need to reduce bag limits at spawning areas. Weather conditions limit a lot of effort. When you look at statistics, it varies with weather and not just cost. Recently, south of Fort Zachary Taylor State Park the water was too cold for lobsters. Fish have tails and will move around according to conditions. At a lot of the patch reefs, I control the lion fish populations there. I kill all lionfish I see. I feel like lionfish and water quality are the biggest threats to our fisheries here. It's not about user groups. People don't go as far to fish anymore because of insurance and rising gas prices. Lower the bag limits on mutttons: 2-3 per person. Believe me all fishermen will turn you in if you are bagging more and selling them. Us working together can achieve success. But it won't work if you put me out of business.

- Peggy Mathews, American Watercraft
I would like to comment on the data you were using. We were looking at static numbers and should look at change over time. That is more important. I agree you can't assume there's going to be an increase in people and use in the near future. You need to look at duration and type of use.
- Daniel Padron, FKCFCA
I would like to start off by saying I am against any closures. Western Sambo Ecological Reserve has been there for decades. Why are we protecting it? The area is not any better than the surrounding areas. I feel like some type of economic study should be done for the resources that are in the zone. Every study I've seen, it doesn't look like closures are doing anything. More lines on the map are going to be more of a headache for law enforcement. Water quality is also an issue. I think it should be all or no access regarding user groups. I think the same thing for permits. If some user groups are not allowed access, nobody else should be allowed access or use. Anyone that can pay can have a boat. They don't need a license. I don't know how to tackle that.
- George Niles, FKCFCA
The Sanctuary needs to admit what is not working. The mooring balls cost thousands of dollars a year to maintain. The corals are worse off near the mooring balls than where there aren't mooring balls. The same thing goes for Western Sambo Ecological Reserve. Maybe that wasn't the best place and should be moved more east. I haven't seen a shred of evidence the corals are better off in the closed areas. To switch it will be more confusing to the public. You put a bulls-eye where you close an area. Leave Riley's hump alone if it's doing so well.
- Will Benson, LKGA
In regards to Western Sambo Ecological Reserve, if you do keep it as a zone, consider catch and release fishing on the northern side. Provide bait permits to get ballyhoo, etc. I don't think there would be a negative impact if we open it up to catch and release. Continue to have no PWC, airboats, etc in the back country; this is a good thing. The flats fishing industry is a \$365 million a year catch and release industry that is a big economic engine to the local area.

Meeting Summary – May 14

9. Welcome back and review agenda for day two
 - Absent working group members: Mark Chiappone, Dave Vandebosch, Tim Grollmund, and Maria Brandvold.
 - Schedule will include an informal public input opportunity before lunch.

Working Group Discussion:

- Working group member provided statistics of number of vessels permitted for charter.
 - Noted that these statistics seem low due to experience on the water.
 - Need to promote simplicity of regulations to enhance understanding and compliance.
 - Promote information and education through innovative technologies, including GPS.
 - Consider licensing program for vessel operation.
- Highlighted tourism numbers and willingness to pay a higher price for a tourist experience in the Keys.
 - Noted that 70% of the visitors conduct activities on the water.
- Noted cruise ship impact in Key West; noted as well decrease in numbers of cruise ship visits over time and cruise ship shore-based excursions sold.
- Noted participation in certain sectors by locals is declining due to crowding and safety concerns.
- Noted importance of enforcement, education, and water quality.
- Noted changes in demographics in Key West, particularly in marinas and impacts to shifting use type and vessel access. Logistics of fishing out of Key West are getting more difficult. Numbers of vessels commercial fishing have declined.

10. Discussion: Round-robin suggestions for the Lower Keys region

Working group break-out groups reported on results of their discussion and collective draft recommendations. Individual members made additional recommendations including the rationale for recommendations. These ideas were further discussed and refined as outlined below.

- Western Sambo –
 - Consider extending outer boundary to include some of the deeper reef area (90' depth contour); provide an ecological swath that represents all types of ecosystems/habitats (lobster noted); would have to consider socio-economic impacts for this change.
 - Consider shifting to include the deeper reef (90' depth contour) and shifting the inner boundary south by the same amount.
 - Would need to consider use of the "bar" for King Fish; consider leaving the "bar" open. Noted that could likely live with the change as it is only a small sliver of area along the deeper reef contour, however it would likely heavily impact some users.

- Consider shifting boundary to the east. This could fulfill objective to include a range of biodiversity, science presented indicates this area is productive and could be protected; would need to consider socio-economic use and impact to users. Noted need to include the deeper reef area. Request a biogeographic comparison of the existing zone and potential shift of zone.
 - Moving slightly could capture enhanced habitat, potential that greater effect from setting this area aside could occur (noted comparison to Riley's Hump)
 - Could move a little farther from use centers of charter and recreational fishing
 - Close to all users
 - Incorporate research only area, which would then take less area overall
- Not in favor of shifting the zone to the east as the areas outside this zone are thriving without being zoned currently.
 - Western Sambo has been in place and has had some impact for natural resources. If this area is shifted what would be lost and what would be gained.
- Consider equity of use and regulations for all users.
- Consider including artificial reef habitat in areas in Western Sambo that are showing less robustness. Use this zone as a true research area to assess impact of artificial reefs over time.
- Coupon Bight –
 - Consider whether or not to maintain this zone; not sure if there is authority to do this.
 - Request for management comparison of Coupon Bight Aquatic Preserve and Sanctuary; would we lose any protections if get rid of Coupon Bight.
 - If Coupon Bight is just a line on a map, those resources (staff, management) could be used for other things
- Looe Key Area –
 - Hot spot of complication
 - Consider having the same regulations in the Looe Key Existing Management Area, no suggestion of what those regulations might be;
 - Consider having this whole area an Ecological Reserve.
 - Need to know the economic impact to making changes to regulations, particularly if make this area an Ecological Reserve.
 - Consider that Fishery Management Plan Areas Closed to Trap Gear are known and are worked around by lobster fishermen
- Fishery Management Plan Areas Closed to Lobster Gear – make these no use zones.
- Back Country Areas – high influx of numbers of vessels (noted in particular Marvin and Snipe Key), causing habitat damage and natural resource impacts (fish, birds, etc). Identify areas of high use, limit use to one or two areas.

- Consider one Ecological Reserve type zone per region. No use allowed.
- For Jet-Ski use in the Lower Keys region – consider no use North of US 1. Could simplify regulation and address conflict of use with flats fishermen.
 - Noted agreement between jet-ski operators and Lower Keys Guides Association.
 - If jet-skis are only allowed south of US 1, could impact safety of the activity.
- Inshore Mid-Channel Patch Reefs – should identify and give some of those places the ultimate protection possible. Could serve as areas of genetic and species diversity.
- A process to identify user groups should be established to allow for increased education of users.
- Identify areas where coral restoration could be conducted.

11. Discussion: Discussion of suggestions proposed and settling on preliminary recommendations.

The working group reviewed ideas presented for potential modifications to marine zones in the Lower Keys region. The discussion focused on (1) potential zoning changes, (2) suggested changes to regulations, and (3) innovative and Keys-wide ideas. The working group identified and documented areas of consensus, majority agreement, concerns, and issues for further discussion. The working group did not fully discuss all ideas raised.

(1) Potential zoning changes: For full details, see the table on page 17.

- Western Sambo Ecological Reserve (consider each recommendation individually or some combination of the below)
 - Consider closing the area to all uses, transit only
 - Extend southern boundary to 90' depth contour and include area known as the "bar"
 - Shift northern boundary to the south on the western side just past the area known as the "sandbar"
 - Make no changes to existing zone
 - Eliminate existing zone
 - Consider shifting this area to the east (described below as New Eastern Zone)
- New Eastern Zone (consider each recommendation individually or some combination of the below)
 - Consider closing the area to all uses, transit only
 - Northwestern corner would be to the right of the area known as the "sandbar"
 - Northeastern corner would be to the left of "Rocky Point Beach" area
 - Southern boundary to 90' depth contour or out to outer edge of bar

The below tables represent comparisons of the natural resource data for the current Western Sambo Ecological Reserve with the new eastern zone as described above.

	Existing Western Sambo Ecological Reserve	New proposed zone concept to the east of the existing Western Sambo Ecological Reserve
Fish Species Richness	28	31
Fish Abundance	21	23
Aggregate Reef	0.87 km ²	1.29 km ²
Patch Reef	0.73 km ²	0.73 km ²
High Coral Species Richness	25	19
High Coral Cover	1	2
Resilient Reefs	3.4 km ²	7.62 km ²
High Relief Reefs	16	8
Existing Western Sambo Ecological Reserve & Eastern Sambo Research Only Area	31.37 km ²	
New proposed zone concept to the east of the existing Western Sambo Ecological Reserve	31.00 km ²	

Habitat Type	Common	Losing	Gain
Aggregate Reef	.02	.85	1.27
Patch Reef	.23	.5	.5
High Coral Richness	0	25	19
Fish Species Richness	2	26	29
Fish Abundance	4	17	19
Resilient Reef	2.4	1.0	5.2
High Relief	0	16	8
Coral Cover (High)	0	1	2

- Looe Key Existing Management Area (the working group reached consensus on the below recommendations)
 - Establish no anchoring zone within existing area
 - Allow marine life collecting
 - Spearfishing will remain prohibited in the existing area
- Looe Key Research Only Zone will remain status quo (the working group reached consensus on this recommendation)
- Looe Key Sanctuary Preservation Area will remain status quo (the working group reached consensus on this recommendation)
- Coupon Bight Aquatic Preserve
 - The working group requested a comparison of the current Aquatic Preserve regulations and existing FKNMS regulations to determine if the Aquatic Preserve regulations provide additional protection in this area. If

no additional protection is provided by Aquatic Preserve regulations, consider eliminating zone.

- In-Shore mid-channel reefs in the vicinity of West Washer Woman
 - The working group would like staff to provide additional data and analysis for these areas in order to consider them for specific zoning/protection.

(2) Suggested changes to regulations:

Revisit Mini Season

- No further discussion at this meeting.

Coral Restoration

- Identify specific areas to conduct coral restoration.

Create a No Anchoring regulation in Fishery Management Plan Areas Closed to Lobster Trap Gear:

- This concept was noted again.

Preliminary Recommendation (made at the April, Middle Keys Region meeting)

- Consensus: No anchoring in Fishery Management Plan Areas Closed to Lobster Trap Gear
- Consensus: Add marker buoys at the Fishery Management Plan Areas Closed to Lobster Trap Gear near Alligator Reef in the Middle Keys.

(3) Innovative and Keys-wide ideas:

Consider Limited Use/Entry

- Consider establishing a permit system to limit use in some or all areas.
 - Provide annual training to vessel crews
 - Provide education programs for recreational users
 - Track use and type of use
 - Include commercial and recreational

Artificial Reefs

- Consider including artificial reef sites in Western Sambo Ecological Reserve. This could serve as a means to monitor effectiveness in a closed environment.

12. Public Comment

Public comment was provided by five individuals:

- David Vaughn, Mote Marine Lab
If you close Looe Key Ecological Reserve to any access, I would have to close the marine lab. The highest protection (of closed areas) will inhibit research, restoration, coral sampling/extraction. Don't take protection to mean restoration can't take place. If you want to see how fast coral restoration has changed, there is a two minute video playing in the Eco-Discovery Center. We are able to produce thousands of corals and put them back out. Environmental protection doesn't have to mean

exclusion of everything, which would exclude restoration activities. The Coral Restoration Working Group started earlier than this group and finished last year. I thought (their results) was supposed to be used in this Ecosystem Protection Working Group. We threw out about 128 suggested areas, and then we prioritized to about 28 top priority areas (to not scare the public with the large number of suggested sites). You don't have those maps to use. You're trying to preserve some areas we would like restored. Make sure your intention of protection doesn't stop our restoration activities.

- Marius Venter, Reef Restoration, Fury.
The main objective of this working group is to recommend new or modified marine zones to ensure protection of a diversity of resources. I have heard reasons for moving the lines and also to open old areas up. If you cannot quantify or justify that it is working in those areas that you are opening up, how can you close more areas? If you move the lines/boundaries, there should be quantitative reasons. Just keeping people out will not work. It did not work in the past. I recommend having a plan for why you want to shut an area down. I don't think limiting crabbing or fishing near Eastern Dry Rocks is a good idea. They need a place to fish during windy conditions. I don't think it is a good idea to limit fishing to some areas. Don't limit fishing on the reef. Areas that they could restore, fishing could be going on. You don't need to stop certain activities from going on to protect the area. It took us a long time to come up with our Coral Restoration areas in the Working Group. Reef restoration should happen while people are using them. You can hurt people that need to take shelter in rough seas by limiting access. I want to commend all of you for what you've been doing. It is a difficult task. I believe in educating the people on all do's and don'ts, even starting with the local folk. They will then educate their friends. For people throwing out crab traps, you need to consider these people when making these big zones.
- Lee Starling, Independent/Commercial Fisherman
Option one for Western Sambo, even I can live with that. I never agree on anything. It would open a lot of areas for stuff. I'm not aware of the area east of there. I'm not happy about the no spearfishing decision at Looe Key, but you have to compromise somewhere. I can even go with that. I feel like inshore patch reefs are self-regulating due to the conditions there. I feel like you guys made progress today.
- Frank Wasson, M/V Spree
I dive all the way from the Elbow to the Dry Tortugas. I have seen most of the reefs. I was the past chair of the SAC at Flower Garden Banks National Marine Sanctuary. I was the chair of the Boundary Expansion group. It always seems to come down to arguments between divers and fishers. I'm a diver and also a spear fisherman. We limited ourselves to diving where mooring buoys are. We don't dive up and down the reef tract, because aren't mooring buoys all up and down reef tract. I know fishermen feel picked on, but there's no reason it should be us against them. When I fish, I spear fish the outer bar myself. I want to eat the fish I choose to catch. I just want to convey to the group here that where you're concentrating diver impacts are in the area you are trying so hard to protect. It is important that you want to protect

these areas and close them off to divers, but we are limited to where the mooring buoys are. It's dangerous to anchor in sand so divers can dive all over the reefs.

- Daniel Padron, FKCFCA

I feel like a handful of darts are being thrown at a map where different colored zones are drawn. Before zoning, there should be a lot more data. You cannot just draw lines on a map. You need data to back it up. Peoples' livelihood are at stake. If you keep pushing people away, there will be more pressure on certain areas. We all need to coexist. Putting boxes around areas will not solve our issues.

Written public comment was provided by five individuals. Written comments can be found here: <http://floridakeys.noaa.gov/review/documents/20140513epwrittencomments.pdf>

Follow-Up Actions for Working Group Members

- Review preliminary recommendations and discussion to date for Upper, Middle, and Lower Keys regions. Review preliminary recommendations for regulations and other innovative ideas that could apply Sanctuary wide.
- Begin considering potential options for the Marquesas and Tortugas Regions.

Decision Items of Note

Preliminary discussion and decisions for potential zone modifications in the Lower Keys region are outlined in the table on page 17. All other items will be further discussed before preliminary decisions are made.

DRAFT concepts presented for potential modifications to marine zones in the Lower Keys region. The below table reflects working group discussion to date. These concepts will be revisited at the final working group meeting in July. No formal working group recommendations have been made.

Area	Rationale	Zone Concept	Regulation Concept	Consensus
Coupon Bight	Not clear what additional protections this zone provides.	Concept 1: Consider eliminating this managed area.		Idea was not further discussed, analysis requested
Issues to Consider for Coupon Bight and associated Concepts:				
Analysis requested				
Looe Key	Simplify zone scheme in this area. This area includes the following existing managed areas: Looe Key Existing Management Area, Looe Key Research Only Area, Looe Key Sanctuary Preservation Area, and three Fishery Management Plan Areas Closed to Lobster Trap Gear.	No zone concept.	Concept 1: consider no anchor zone in Looe Key Existing Management Area (includes all zones within the EMA); status quo in Looe Key Sanctuary Preservation Area and Looe Key Research Only Area.	Consensus: support for regulation concepts
	Marine life collection is allowed, with limited entry, in other places. This is an area where marine life collection has not been allowed for many years. There is little evidence that the closure has made a difference for the region. Consider the issue of users and commercial activities allowed in this region.		Concept 2: Consider removing ban on marine life protection in Looe Key Existing Management Area.	
		Concept 3: Consider leaving prohibition on spearfishing in place.		
Issues to Consider for Looe Key and associated Concepts:				
Maintain no spearfishing regulation in the Looe Key Existing Management Area.				
Western Sambo	Will provide an ecological swath that represents all types of ecosystems/habitats (lobster noted); will also capture the Gray Snapper fish spawning aggregation site just to the south.	Concept 1: Consider extending southern boundary to 90' depth contour and include area known as the "bar"		No consensus, still under discussion.
	allow use in near shore areas	Concept 2: Consider a shift in the northern boundary to the south on the western side just past the area known as the "sandbar"		
	Shift to the east would capture a broader range of resources including fish species, coral, and resilient reefs. This shift could also capture the existing Eastern Sambo Research Only Area. This option allows something positive for natural resources without too much economic impact. Area truly set aside that can be monitored.	Concept 3: Consider shifting this area slightly east (see New Eastern Zone below for details)	Concept 6: Consider closing area to all uses, transit only.	
		Concept 4: Consider making no changes to existing zone		
		Concept 5: Eliminate Zone		

DRAFT concepts presented for potential modifications to marine zones in the Lower Keys region. The below table reflects working group discussion to date. These concepts will be revisited at the final working group meeting in July. No formal working group recommendations have been made.

Area	Rationale	Zone Concept	Regulation Concept	Consensus
New Eastern Zone (Concept 3 above)	Will provide an ecological swath that represents all types of ecosystems/habitats (lobster noted); to capture a broader range of resources including fish species, coral, and resilient reefs. This shift could also capture the existing Eastern Sambo Research Only Area. This option allows something positive for natural resources without too much economic impact. Consider extending a portion of this area to the deep reef. Recommend that this area be closed to all uses. Area truly set aside that can be monitored.	Concept 1: Consider establishing southern boundary at 90' depth contour or out to outer edge of are known as the "bar"	Concept 3: Consider closing area to all uses, transit only.	No consensus, still under discussion.
	Leaves beach areas open and allows use in near shore areas	Concept 2: Consider establishing this zone so between the northwestern corner to the right of the area known as the "sandbar" and the northeastern corner to the left of "Rocky Point Beach" area		
Issues to Consider for Western Sambo and associated Concepts:				
For any potential changes would have to consider socio-economic impacts; for a move to the deeper contour line will need to assess impact to King Fish fishing activity.				
If consider opening near-shore area concern about contiguous habitat and important in-shore area used for juvenile fish.				
Shifting to the east would move the zone a little farther from use centers of charter and recreational fishing and this would incorporate the research only area, which would then take less area overall				
If considering closing area to all use/transit only consider: (1) shifting area to the east does not make sense due to the loss of research history, burden of moving zone for not appreciable gain in natural resource.				
(2) consider heavy use of existing zone by diving and sorkleing from Key West				
If close all access to this area, need to consider displacement to other areas.				
Mid-channel patch reef area in the vicinity of West Washer Woman	coral reef resilience is high, there is high coral cover and richness, and there is medium to high fish species abundance.	Concept 1: consider creating a zone in the mid-channel patch reefs of the Lower Keys region.		Working group requested additional information from staff
Issues to Consider for Mid-Channel Patch Reefs and associated Concepts:				
Request additional information and analysis from staff to better evaluate areas of mid-channel patch reefs to consider creating zones.				