

System Management Plan Snapper Grouper Amendment 14 MPAs

STATUS REPORT

February 11, 2011

Prepared by: Gregg Waugh

South Atlantic Fishery Management Council Meeting
The King and Prince Hotel
201 Arnold Road
St. Simons Island, Georgia
March 2-6, 2015

Background

A framework is in development for a System Management Plan (SMP) for the eight SAFMC Snapper-Grouper Amendment 14 MPAs and to provide a foundation for potential future SAFMC MPA management plans in the southeast U.S. This document is currently in outline form, serving as a starting point to expand the development of adaptive- and effectiveness-based management of the SAFMC's array of protected areas.

This SMP draft outline is intended to also increase the dialogue between the SAFMC and NOAA, commercial and recreational fishers, other members of affected communities, scientists, and additional agencies and stakeholders to achieve common goals to effectively monitor and protect the resources intended by the Amendment 14 MPAs. Once the primary working outline structure is established, the component sections of the SMP will be populated and vetted through the SAFMC's public process.

The final SMP will contain the proposed management action items and background details for the eight MPAs established by Amendment 14 in January of 2009.

To provide a foundation for the SMP, four steps for management actions are proposed: resource protection, research and monitoring, outreach and education, and administrative and financial. Additionally, management effectiveness evaluations are recommended as a fundamental component that the final SMP will contain to determine the status and utility of the MPAs in achieving the intentions set by Amendment 14. The final SMP expects to support the requirements of the reauthorized Magnuson-Stevens Fishery Conservation and Management Act (U.S. Public Law 109-479 2007) and aims to utilize MPAs in the southeast as a viable fishery management tool to protect and assess target resource populations and associated habitats.

IPT Team

- a. ✓SAFMC Team: Gregg Waugh (SAFMC Lead), Kari MacLauchlin, Brian Cheuvront, Roger Pugliese (EFH & Ecosystem), John Carmichael (Research/Science), Mike Errigo (Data), Chip Collier (Coral issues), Amber Von Harten (Outreach), and Michelle Tishler/Ken Lindeman (Consultants).
- b. ✓NMFS SERO Team: Rick DeVactor (Lead), Jack McGovern (Biologist, Sustainable Fisheries), Nick Farmer (Data Analyst), Stephen Holiman (Economist), Mike Jepson (Social Scientist), Andy Herndon and Jennifer Lee (Protected Resources), Jeff Radonski (OLE), and David Dale (Habitat Conservation).
- c. ✓NMFS SEFSC Team: Todd Kellison, Andy David, and Stacey Harter.
- d. ✓NOAA GC Team: Monica Smit-Brunello

Current Status

Michelle Tishler is completing a contract to pull together an outline and background materials to be used by the IPT to develop the System Management Plan. The outline is complete. The attached Goals and Objectives document was compiled and provided for the IPT's use. Michelle has met with Council staff and has worked with Amber and Kim

on the outreach component. Amber provided the latest version of the Outreach component (**attached**).

The IPT met on December 10, 2014 and provided comments on the Goals and Objectives. They will meet again after the March 2015 meeting.

Final Timing 2015

- a. Contract work on items to develop an outline – 2014/15
- b. √IPT meeting – 12/10/14
- c. IPT works on items in the outline – January 2015 through March 2015
- d. Council reviews draft SMP and provides guidance – March 2015
- e. IPT revise document as necessary – March-May 2015
- f. Snapper Grouper AP input – April 13-14, 2015
- g. Council reviews/approves Draft SMP – June 2015
- h. IPT revise document as necessary – June/July 2015
- i. Public input – July/August/September 2015
- j. Council reviews comments/document and provides guidance – September 2015
- k. IPT revise document as necessary – September/October
- l. SSC review – October 2015
- m. Snapper Grouper AP input – October 2015
- n. Council reviews input and approves Final SMP – December 2015

System Management Plan

1.1 Goals and Objectives of the MPAs

IPT to do: Assess the original goals and objectives of Amendment 14 MPAs (SAFMC 2007) and using the tools on the following pages, identify an updated/new set of goals/objectives specific to the current and future management of these eight MPAs.

Management goals/objectives can be specific or broad, measurable, long or short term, open-ended, and are aimed to reach preferred conditions (Salm et al. 2000, Pomeroy et al. 2004). For the SMP, they should address research and monitoring, outreach, resource protection (enforcement), and administrative and financial topics (SMP Outline: Meadows & Lindeman 2013; e.g.s, SAFMC 2005, SAFMC 2006, US DOC 2012), which will be the basis of the management section. To identify the goals/objectives for these four topics, start with considering the biodiversity, socio-economic, and governance goals/objectives by Pomeroy et al. (2004). Working with these topics will help focus monitoring initiatives and determine indicators for MPA and management effectiveness assessments. The next four pages includes *examples* of goals/objectives to consider from Pomeroy et al. (2004), followed by examples from existing management plans. Some goals/objectives relevant to the Amendment 14 MPAs may not be included here (and should be added) and some of these can be removed if they are not applicable. These examples can be *adapted* to meet the needs of the Amendment 14 MPAs as a system.

The following goals and objectives were used in “determining alternatives for the location, size, and orientation” of the Amendment 14 MPA sites (SAFMC 2006, 2007). Since these were specific to forming the MPAs, they are not all necessarily applicable for managing the MPAs.

“Goal 1: Utilize a collaborative process to select MPAs

Obj. A: Utilize input from scientists, fishermen, and the public to select proposed MPAs.

Goal 2: Maximize biological benefits

Obj. B: Protect some habitat known to support deepwater snapper and grouper species. Utilize hardbottom locations to provide locations suitable to satisfy the need for these MPAs.

Obj. C: Protect some areas where spawning activity of snapper-grouper has been recorded.

Obj. D: Protect some areas known to be nursery areas for deepwater species.

Goal 3: Minimize adverse social and economic effects

Obj. E: Minimize impact on fishermen in MPAs that do not target snapper-grouper Species.

Obj. F: Orient the MPAs in a manner that provides consideration to the way that fishermen fish.

Obj. G: Consider boater safety when designating proposed closed areas.

Goal 4: Maximize MPA enforceability

Obj. H: Consider the seven criteria from the Law Enforcement AP’s report when determining suitable MPA sites.

Goal 5: Maximize research and monitoring capabilities

Obj. I: Utilize available fishery-independent and fishery-dependent data to provide Locations suitable to satisfy the need for MPAs.

Obj. J: Utilize traditional knowledge, in part, to provide locations suitable to satisfy the need for MPAs.”

System Management Plan

The following figure reflects examples of Biophysical Goals and Objectives (Fig. 2, Pomeroy et al. 2004) that appear relevant to the SAFMC SMP, boxed below in red.

GOAL 1 Marine resources sustained or protected

- 1A *Populations of target species for extractive or non-extractive use restored to or maintained at desired reference points*
- 1B *Losses to biodiversity and ecosystem functioning and structure prevented*
- 1C *Populations of target species for extractive or non-extractive use protected from harvest at sites and/or life history stages where they become vulnerable*
- 1D *Over-exploitation of living and/or non-living marine resources minimized, prevented or prohibited entirely*
- 1E *Catch yields improved or sustained in fishing areas adjacent to the MPA*
- 1F *Replenishment rate of fishery stocks increased or sustained within the MPA*

GOAL 2 Biological diversity protected

- 2A *Resident ecosystems, communities, habitats, species, and gene pools adequately represented and protected*
- 2B *Ecosystem functions maintained*
- 2C *Rare, localized or endemic species protected*
- 2D *Areas protected that are essential for life history phases of species*
- 2E *Unnatural threats and human impacts eliminated or minimized inside and/or outside the MPA*
- 2F *Risk from unmanageable disturbances adequately spread across the MPA*
- 2G *Alien and invasive species and genotypes removed or prevented from becoming established*

GOAL 3 Individual species protected

- 3A *Focal species abundance increased or maintained*
- 3B *Habitat and ecosystem functions required for focal species' survival restored or maintained*
- 3C *Unnatural threats and human impacts eliminated or minimized inside and/or outside the MPA*
- 3D *Alien and invasive species and genotypes removed from area or prevented from becoming established*

GOAL 4 Habitat protected

- 4A *Habitat quality and/or quantity restored or maintained*
- 4B *Ecological processes essential to habitat existence protected*
- 4C *Unnatural threats and human impacts eliminated or minimized inside and/or outside the MPA*
- 4D *Alien and invasive species and genotypes removed or prevented from becoming established*

GOAL 5 Degraded areas restored

- 5A *Populations of native species restored to desired reference points*
- 5B *Ecosystem functions restored*
- 5C *Habitat quality and/or quantity restored or rehabilitated*
- 5D *Unnatural threats and human impacts eliminated or minimized inside and/or outside the MPA*
- 5E *Alien and invasive species and genotypes removed or prevented from becoming established*

System Management Plan

The following figure reflects examples of Socioeconomic Goals and Objectives (Fig. 3, Pomeroy et al. 2004) that appear particularly relevant to the SAFMC SMP, boxed below in red.

GOAL 1	Food security enhanced or maintained
1A	<i>Nutritional needs of coastal residents met or improved</i>
1B	<i>Improved availability of locally caught seafood for public consumption</i>
GOAL 2	Livelihoods enhanced or maintained
2A	<i>Economic status and relative wealth of coastal residents and/or resource users improved</i>
2B	<i>Household occupational and income structure stabilized or diversified through reduced marine resource dependency</i>
2C	<i>Local access to markets and capital improved</i>
2D	<i>Health of coastal residents and/or resource users improved</i>
GOAL 3	Non-monetary benefits to society enhanced or maintained
3A	<i>Aesthetic value enhanced or maintained</i>
3B	<i>Existence value enhanced or maintained</i>
3C	<i>Wilderness value enhanced or maintained</i>
3D	<i>Recreation opportunities enhanced or maintained</i>
3E	<i>Cultural value enhanced or maintained</i>
3F	<i>Ecological services values enhanced or maintained</i>
GOAL 4	Benefits from the MPA equitably distributed
4A	<i>Monetary benefits distributed equitably to and through coastal communities</i>
4B	<i>Non-monetary benefits distributed equitably to and through coastal communities</i>
4C	<i>Equity within social structures and between social groups improved and fair</i>
GOAL 5	Compatibility between management and local culture maximized
5A	<i>Adverse effects on traditional practices and relationships or social systems avoided or minimized</i>
5B	<i>Cultural features or historical sites and monuments linked to coastal resources protected</i>
GOAL 6	Environmental awareness and knowledge enhanced
6A	<i>Respect for and/or understanding of local knowledge enhanced</i>
6B	<i>Public's understanding of environmental and social 'sustainability' improved</i>
6C	<i>Level of scientific knowledge held by the public increased</i>
6D	<i>Scientific understanding expanded through research and monitoring</i>

System Management Plan

The following figure reflects examples of Governance Goals and Objectives (Fig. 4, Pomeroy et al. 2004) that appear particularly relevant to the SAFMC SMP, boxed below in red.

GOAL 1	Effective management structures and strategies maintained	
1A	<i>Management planning implemented and process effective</i>	
1B	<i>Rules for resource use and access clearly defined and socially acceptable</i>	
1C	<i>Decision-making and management bodies present, effective, and accountable</i>	
1D	<i>Human and financial resources sufficient and used efficiently and effectively</i>	
1E	<i>Local and/or informal governance system recognised and strategically incorporated into management planning</i>	
1F	<i>Periodic monitoring, evaluation, and effective adaptation of management plan ensured</i>	
GOAL 2	Effective legal structures and strategies for management maintained	
2A	<i>Existence of adequate legislation ensured</i>	
2B	<i>Compatibility between legal (formal) and local (informal) arrangements maximized or ensured</i>	
2C	<i>National and/or local legislation effectively incorporates rights and obligations set out in international legal instruments</i>	
2D	<i>Compatibility between international, national, state, and local rights and obligations maximized or ensured</i>	
2E	<i>Enforceability of arrangements ensured</i>	
GOAL 3	Effective stakeholder participation and representation ensured	
3A	<i>Representativeness, equity, and efficacy of collaborative management systems ensured</i>	
3B	<i>Resource user capacity effectively built to participate in co-management</i>	
3C	<i>Community organizing and participation strengthened and enhanced</i>	
GOAL 4	Management plan compliance by resource users enhanced	
4A	<i>Surveillance and monitoring of coastal areas improved</i>	
4B	<i>Willingness and acceptance of people increased to behave in ways that allow for sustainable management</i>	
4C	<i>Local ability and capacity built to use resources sustainably</i>	
4D	<i>User participation in surveillance, monitoring, and enforcement increased</i>	
4E	<i>Application of law and regulations adequately maintained or improved</i>	
4F	<i>Access to and transparency and simplicity of management plan ensured and compliance fostered</i>	
GOAL 5	Resource use conflicts managed and reduced	
5A	<i>User conflicts managed and/or reduced: 1) within and between user groups, and/or 2) between user groups and the local community or between the community and people outside it</i>	

System Management Plan

Broad definitions of goals and objectives of MPAs for review, by Pomeroy et al. (2004).

Box 4

THE GOALS AND OBJECTIVES OF AN MPA

A protected area is one example of a conservation **strategy** that can be used to manage natural resources. When a decision is made to use an MPA strategy, one of the first steps taken is to design an appropriate management plan for the strategy (Salm *et al.*, 2000; Kenchington, 1990). A management plan documents an explicit set of goals, objectives, and activities that will be undertaken over a specified period of time and area, and articulates how the conservation strategy being used is designed to address the **threats** present (Margolius and Salafsky, 1998; for more details). While not all MPAs require a complete management plan to begin operation, eventually a comprehensive plan will be needed to guide the long-term goals and development of the area (Salm *et al.*, 2000).

A **goal** is a broad statement of what the MPA is ultimately trying to achieve. A useful goal is:

- brief and clearly defines the desired long-term vision and/or condition that will result from effective management of the MPA,
- typically phrased as a broad mission statement, and
- simple to understand and communicate.

An **objective** is a more specific measurable statement of what must be accomplished to attain a related goal. Attaining a goal is typically associated with the achievement of two or more corresponding objectives. A useful objective (Margolius and Salafsky, 1998) is one that is:

- specific and easily understood,
- written in terms of what will be accomplished, not how to go about it,

- realistically achievable,
- defined within a limited time period, and
- achieved by being measured and validated.

Goals and objectives are preferably developed in a participatory manner to reflect a balance of the needs and desires of all stakeholders involved in the management of the MPA and use of marine resources.

Poorly designed and/or articulated goals and objectives can be a serious problem for MPA managers. A set of goals and objectives that have been appropriately developed and are useful for management purposes (as defined by the criteria listed below) will improve the likelihood of the MPA being effectively managed.

To find your goals and objectives and prepare for an evaluation:

- Obtain a list of goals and objectives from the management plan or relevant legislation.
- If there is no such list in the management plan, go through a participatory process to define them.
- Review whether the goals and objectives meet the above criteria that make them useful for doing an evaluation.
- The goals and objectives may need to be clarified or more properly worded for use in conducting an evaluation.

One important application of the results of an evaluation is to improve the quality of goals and objectives that guide management. It is important to examine the goals and objectives regularly to determine if they are appropriate or need to be revised to make them more clearly defined, measurable, and useful for future management purposes.



For more information on how to develop good objectives go to http://effectiveMPA.noaa.gov/guidebook/MPA_goals.html

System Management Plan

The following are examples of goals/objectives in two existing MPA management plans.

Goals and objectives of the Flower Garden Banks National Marine Sanctuary, Final Management Plan (US DOC 2012)

Goal 1: Protect, maintain and, where appropriate, restore and enhance the resources and qualities of Flower Garden Banks National Marine Sanctuary and ecosystem that supports it.

1A: Prioritize resource protection in management decisions.

1B: Develop and integrate best practices, scientific information, and innovative management techniques.

1C: Reduce threats to sanctuary resources.

1D: Enhance compliance with and enforcement of sanctuary regulations.

1E: Improve ability to conduct emergency response and damage assessment.

Goal 2: Support, promote, and coordinate characterization, research, and monitoring of FGBNMS and the regional environment to inform conservation and protection.

2A: Improve characterization of the physical, chemical, biological and human environment of the sanctuary.

2B: Enhance research necessary for effective management and protection of sanctuary resources.

2C: Monitor and assess long-term environmental changes in the sanctuary.

2D: Evaluate environmental impacts that could result from changes in human activities or environmental conditions.

Goal 3: Enhance and foster public awareness, understanding, appreciation, and stewardship of FGBNMS and the regional marine environment.

3A: Broaden public awareness of the sanctuary and the regional marine environment by reaching out to new audiences.

3B: Improve understanding of the sanctuary and its resource protection issues through the interpretation and dissemination of information on sanctuary science and management.

3C: Increase public appreciation, support and stewardship of the sanctuary, including the active participation of volunteers.

Goal 4: Manage and facilitate multiple sustainable uses of FGBNMS compatible with the primary purpose of resource protection.

4A: Minimize potential user conflicts.

4B: Explore innovative management techniques, such as marine zoning, to achieve the mission of protecting sanctuary resources.

4C: Improve understanding of human activities and their potential impacts, direct, indirect and cumulative, to sanctuary resources and the regional environment.

Goal 5: Promote and coordinate partnerships with stakeholders, agencies, and organizations.

5A: Coordinate the development and implementation of policies, regulations, procedures, and permitting activities.

5B: Enhance opportunities for stakeholder and public involvement in sanctuary activities, especially through the sanctuary advisory council process.

5C: Facilitate the exchange of scientific information, technical knowledge, and innovative management strategies.

System Management Plan

5D: Improve collaboration and coordination with partners to increase public awareness, understanding and stewardship of the sanctuary.

Goal 6: Promote ecosystem-based management of the FGBNMS regional environment.

6A: Improve understanding of how sanctuary resources are connected to other areas through ecosystem processes.

6B: Improve understanding of other threatened areas in the FGBNMS regional environment that may be nationally significant.

6C: Evaluate and implement management actions that enhance ecosystem-based management.”

Marine Life Protection Program (California Dept of Fish and Game 2008):

“3.1 Goals of the Marine Life Protection Program

The foundation for achieving the goals and objectives of the MLPA is a Marine Life Protection Program (Program), of which the Commission must adopt. The MLPA sets the following goals for the Program [FGC subsection 2853(b)]:

- (1) To protect the natural diversity and abundance of marine life, and the structure, function, and integrity of marine ecosystems.
- (2) To help sustain, conserve, and protect marine life populations, including those of economic value, and rebuild those that are depleted.
- (3) To improve recreational, educational, and study opportunities provided by marine ecosystems that are subject to minimal human disturbance, and to manage these uses in a manner consistent with protecting biodiversity.
- (4) To protect marine natural heritage, including protection of representative and unique marine life habitats in California waters for their intrinsic value.
- (5) To ensure that California's MPAs have clearly defined objectives, effective management measures, and adequate enforcement, and are based on sound scientific guidelines.
- (6) To ensure that the state's MPAs are designed and managed, to the extent possible, as a network.”

System Management Plan

Literature Cited

- California Department of Fish and Game. 2008. Master plan for marine protected areas. California Marine Life Protection Act.
- Dalton, T.M. 2005. Beyond biogeography: a framework for involving the public in planning of U.S. marine protected areas. *Conservation Biology*. 19:1392-1401.
- Day, J. 2008. The need and practice of monitoring, evaluating and adapting marine planning and management – lessons from the Great Barrier Reef. *Marine Policy*. 32: 823-831.
- IUCN. 2004. *Managing Marine Protected Areas: A Toolkit for the Western Indian Ocean*. IUCN Eastern African Regional Programme, Nairobi, Kenya, xii + 172pp.
- Pomeroy, R.S., J.E. Parks, and L.M. Watson. 2004. *How is your MPA doing? A guidebook of natural and social indicators for evaluating marine protected area management effectiveness*. IUCN, Protected Areas Program; WWF; United States, NOAA.
- Meadows, M.S.T., and K.C. Lindeman. 2012. System Management Plan Outline for the SAFMC Amendment 14 MPAs. 29 p.
- Osmond, M., S. Airame, M. Caldwell, J. Day. 2010. Lessons for marine conservation planning: A comparison of three marine protected area planning processes. *Ocean & Coastal Management*: 1-11.
- SAFMC. 2007. Snapper Grouper Amendment Number 14. South Atlantic Fishery Management Council, Charleston, South Carolina. 601 p.
- SAFMC. 2006. Public Hearing Draft, Snapper Grouper Amendment 14. South Atlantic Fishery Management Council, Charleston, South Carolina. 440 p.
- SAFMC. 2005. Final Evaluation Plan for the *Oculina* Experimental Closed Area. South Atlantic Fishery Management Council, Charleston, South Carolina. 84 p.
- Salm, R.V., J. Clark, and E. Siirila (2000). *Marine and Coastal Protected Areas: A guide for planners and managers*. IUCN. Washington DC. xxi + 371pp.
- U.S. Department of Commerce. National Oceanic and Atmospheric Administration. Office of National Marine Sanctuaries. 2012. *Flower Garden Banks National Marine Sanctuary Final Management Plan*. Silver Spring, MD. 130 p.

3.3 Outreach Action Items

IPT Member: Amber VonHarten

See comments in side panel and see items in red italics to note, edit, or complete.

Outreach is an essential component of effective ongoing fisheries and spatial management. Outreach activities within the community and with stakeholders informs the public of the purpose and associated laws and regulations of the protected areas, and achieves a level of awareness and understanding while promoting public participation, ownership, and compliance. The desired outreach action items in this section are listed as projects and are modified from the outreach component of the Amendment 14 to the SG FMP (SAFMC 2007), SAFM Public Hearing Draft (2006), and the Council's *Oculina* Experimental Closed Area (OECA) Evaluation Plan (2005).

“The Council will solicit input from its Information and Education Advisory Panel and the Information and Education Committee in reviewing these needs and possibly developing further recommendations. As with the outreach component of the *Oculina* Experimental Closed Area Evaluation Plan, the Council acknowledges the need to work closely through partnerships to achieve these outreach needs. Possible partners in outreach efforts include, but are not limited to: Sea Grant, NOAA Fisheries, NOAA National Undersea Research Center at the University of North Carolina – Wilmington (NURC/UNCW), NOAA Office for Law Enforcement, individual state marine resources and law enforcement agencies, NOAA National Marine Sanctuary Program, Harbor Branch Oceanographic Institution, Centers for Ocean Sciences Education Excellence (COSEE) in South Carolina and Florida, Project Oceanica, and others” (SAFMC 2007).

As of date, the SAFMC in collaboration with project partners produced the following outreach items:

- Deepwater MPA Regulation brochures with updated type II MPA content, in collaboration with the S.C. Sea Grant Extension Program (SAFMC 2009).
- *Add all relevant items (KIM IVERSON TO UPDATE)*

The outreach action items aim to address the following goals and objectives of the System Management plan:

Insert the relevant updated goals and objectives for the SMP after the IPT agrees on the final Gs/Os for the SMP. Will these updated Gs/Os change the desired outreach action items?

For example, from Pomeroy et al. (2004):

Socio-Economic Goal No. 6: Environmental awareness and knowledge enhanced

Objectives:

- a. Respect for and/or understanding of local knowledge enhanced*
- b. Public's understanding of environmental and social 'sustainability' improved*
- c. Level of scientific knowledge held by the public increased*
- d. Scientific understanding expanded through research and monitoring*

Governance Goal No. 4: Management plan compliance by resource users enhance

Objective:

- a. Access to and transparency and simplicity of management plan ensured and compliance fostered.*

Top priorities:

- Action Item 2: Work with fishing chart manufacturers (both printed and electronic) and/or vendors to improve available information for the Deepwater Type 2 MPAs
- Action Item 5: Update current rack card information and develop area-specific rack cards (Northern and Southern MPAs) to distribute at area bait and tackle shops, marinas, fish houses, boating stores, fishing tournaments, boat shows, etc.
- Action Item 8: Incorporate new rack cards (Northern and Southern MPAs) into the Council's mobile app, *SA Fishing Regulations*.
- Action Item 9: Develop a mechanism or delegate a point of contact to coordinate and share news and activities within the MPA sites (research, monitoring, educators, and law enforcement) with Council staff for use in outreach and media events (e.g., social media, blogs, newsletters, etc.).

The following ten outreach action items would be initiated by either Council staff and/or by potential partners:

Action Item 1: Provide SAFMC Deepwater MPA regulation brochures to area fishermen.

- *Tasks*: reprint a limited number of updated Deepwater MPA Regulation brochures to include the new content regarding *Oculina* and distribute to federal, state, and local law enforcement offices for distribution.
- *Justification*: the regulations brochure will provide a summary of regulations and information for the Type 2 MPAs as well as an information on changes to the *Oculina* HAPC (once Coral Amendment 8 is implemented), and identification chart for snapper/grouper species found in the area. The brochure will also be available on the SAFMC website and the mobile application, *SA Fishing Regulations*.
- *Deliverables*: Updated SAFMC regulation brochures.
- *Potential Partners/roles*: **ADD**

ADD: Schedule, Budget

Action Item 2: Work with fishing chart manufacturers (both printed and electronic) and/or vendors to improve available information for the Deepwater Type 2 MPAs.

- *Tasks*: identify manufacturers of more commonly used fishing charts in South Atlantic, contact manufacturers and coordinate methods to update products.
- *Justification*: fishermen have expressed concerns that charts commonly used do not currently portray the coordinates and restrictions for new Type 2 MPAs.
- *Deliverables*: add information to electronic and printed charts, possible labels to apply to existing printed charts available at retail outlets.
- *Schedule*: Year 1, identify manufacturers and assess best method to modify information currently available. Year 2, work with cooperating manufacturers to modify electronic data for products. Due to publishing constraints, outcomes of this project may not be immediately evident but will have long-reaching effects.

- *Budget: ADD*; dependent upon the number of printed fishing charts currently available (including those in storage), cost of creating and printing additional labels for existing printed charts, and willingness of electronics manufacturers to modify electronic products.

ADD: Potential Partners/Roles

Action Item 3: Develop and distribute news releases (coordinating with local contacts) to focus on research and monitoring projects, and the ecological importance of the Type 2 MPAs.

- *Tasks*: create science-based news releases relevant to ongoing research and monitoring activities with focus on habitat, snapper grouper species, and links to ecosystem-based management. Coordinate releases with ongoing activities and strive to provide high-resolution photos and graphics to media.
- *Justification*: increase awareness of all activities in the Type 2 MPAs.
- *Deliverables*: news releases; outlets may include NOAA News, local/national media, and ENN. Coordinate releases with ongoing activities and strive to provide high-resolution photos and graphics to media.
- *Potential Partners/roles*: NOAA Fisheries Southeast Fisheries 1 Science Center, NOAA Undersea Research Center, Sea Grant; Harbor Branch Oceanographic Institution; NOAA Fisheries' Southeast Regional Office; NOAA Office for Law Enforcement, and Florida Fish and Wildlife Commission.
- *Schedule*: Produce at least one feature news release/year; research cruises provide good opportunities for releases and events (e.g., port days, at-sea visits).

ADD: Budget

Action Item 4: Develop PowerPoint presentations about the deepwater Type 2 MPAs; distribute on CD, post on the Web site, and disseminate to fishing clubs, environmental groups, state Sea Grant programs, local governments, etc.

- *Tasks*: design and create a PowerPoint presentation using existing photos, video, maps, and other information to highlight Type 2 MPAs, history of management, research and monitoring activities, law enforcement, etc.
- *Justification*: provides a quick method to distribute information for use by various audiences that can be readily updated.
- *Deliverables*: PowerPoint presentation on CD and Web site.
- *Potential Partners/roles*: NOAA Fisheries Southeast Fisheries Science Center; Florida Fish and Wildlife Commission; Sea Grant; and National Undersea Research Center.

ADD: Schedule, Budget

Action Item 5: Update current rack card information and develop area-specific rack cards (Northern and Southern MPAs) to distribute at area bait and tackle shops, marinas, fish houses, boating stores, fishing tournaments, boat shows, etc.

- *Tasks*: update rack cards, distribute to targeted businesses and fishing tournament directors.
- *Justification*: effectively designed rack cards would draw attention to the Type 2 MPAs and provide quick access to general information about habitat, fish species, maps, regulations, and law enforcement contacts.
- *Deliverables*: posters, rack cards and/or brochures.

- *Potential Partners/roles:* Harbor Branch Oceanographic Institute; National Undersea Research Center; U.S. Coast Guard; Florida Fish and Wildlife Commission; NOAA Fisheries; and Sea Grant.

ADD: Schedule, Budget

Action Item 6: Expand the Council's web site to provide comprehensive education and outreach products (e.g., regulations, publications, research and monitoring information, law enforcement activities, news releases, high-resolution video and photographs, maps, etc.). Publicize availability of information by having links posted on other fishing/Non-Governmental Organizations/tourism related web sites.

- *Tasks:* enhance the Council website and integrate materials, including links to other relevant sites. Publicize the availability of web-based information.
- *Justification:* The Web site is the best media for maintaining comprehensive, dynamic content and imagery. The availability of this information can be publicized from other existing high profile Web sites.
- *Deliverables:* Web site and promotion.
- *Potential Partners/roles:* National Undersea Research Center; NOAA Fisheries' Southeast Fisheries Science Center (SEFSC); Florida Fish and Wildlife Commission; Florida Fish and Wildlife Research Institute (FWRI); US Geological Service; and NOAA Office for Law Enforcement.

ADD: Schedule, Budget

Action Item 7: : Collaborate with agencies and organizations that specialize in developing and conducting teacher workshops/materials on outreach aimed at highlighting the Council's managed areas (MPAs, *Oculina*, SMZs, etc.).

- *Tasks:* identify educational partners and suitable workshops for incorporating curriculum on all existing protected areas designated by the SAFMC (including current MPAs, SMZs, HAPCs, etc.) to disseminate to the public and to potential partners to collaborate on conducting outreach workshops.
- *Justification:* identified as a need at both *Oculina* constituent meetings and determined a priority item by the Information and Education Advisory Panel for *Oculina*. Initial groundwork will be needed to identify local education needs.
- *Deliverables:* education materials as identified.
- *Potential Partners/roles:* Centers for Ocean Sciences Education Excellence (COSEE) in South Carolina and Florida; Sea Grant; Project Oceanica; and local school systems and teacher partners. Identify and develop education materials for children.

ADD: Schedule, Budget

NEW ACTION ITEMS (A.vonharten) - include a description of Tasks, Justification, Deliverables, Potential Partners/Roles, Schedule, and Budget for each:

Action Item 8: Incorporate new rack cards (Northern and Southern MPAs) into the Council's mobile application, *SA Fishing Regulations*.

Action Item 9: Develop a mechanism or delegate a point of contact to coordinate and share news and activities within the MPA sites (research, monitoring, educators, and law enforcement) with Council staff for use in outreach and media events (e.g., social media, blogs, newsletters, etc.).

Action Item 10: Develop a list of key contacts (tackle shops, state parks, county government offices, outreach staff in other agencies, etc.) in the port communities near the deepwater MPA sites to target outreach efforts and materials.

Include a summary table of the costs of the Action Items on an annual basis over 3 to 5 years. Highlight the items that are high priority. (Table adapted from the U.S. DOC FKNMS Revised Management Plan 2007).

Outreach Action Items	Estimated Annual Cost					Total Estimated Cost Over 5 Years
	Year 1	Year 2	Year 3	Year 4	Year 5	
AI 1: Provide SAFMC regulation brochures to area fishermen						
AI 2: Work with fishing chart manufacturers to improve paper and electronic charts						
AI 3: Develop and distribute news releases on research related to the A14 MPAs						
AI 4: Develop PowerPoint presentations and distribute						
AI 5: Update rack cards, develop area specific rack cards						
AI 6: Expand website to provide extensive outreach and educational materials						
AI 7: Develop educational products for teachers						
AI 8: List of key contacts to target for outreach efforts & materials						
AI 9: Mechanism / Point of contact to share A14 MPA and other SAFMC protected areas news/activities						
AI 10: New rack cards into mobile app, SA Fishing Regulations						
AI 11: Teacher workshops/materials on outreach						

Here is an example from the U.S. DOC FKNMS Revised Management Plan (2007).

Table 3.4 Estimated costs of the Education and Outreach Action Plan

Education and Outreach Action Plan Strategies	Estimated Annual Cost (in thousands)					Total Estimated 5 Year Cost
	YR 1	YR 2	YR 3	YR 4	YR 5	
E.4: Developing Training, Workshops and School Programs	200	200	250	300	300	1,250
E.6: Continuing the Education Working Group	1	1	1	1	1	5
E.10: Establishing Public Forums	-	1	1	1	1	4
E.11: Participating in Special Events	-	110	125	125	125	485
E.1: Printed Product Development and Distribution	100	242	226	281	281	1,130
E.2: Continued Distribution of Audio-Visual Materials	2	2	2	2	2	10
E.3: Continue Development of Signs, Displays, Exhibits, and Visitor Centers	75	250	115	125	600	1,165
E.5: Applying Various Technologies	-	-	-	25	10	35
E.12: Professional Development of Education and Outreach Staff	6	7	8	9	10	40
Total Estimated Annual Cost	384	813	728	819	1280	4,124

Literature Cited and Resources Consulted

- Meadows, M.S.T., and K.C. Lindeman. 2012. System Management Plan Outline for the SAFMC Amendment 14 MPAs. 29 p.
- Pomeroy, R.S., J.E. Parks, and L.M. Watson. 2004. *How is your MPA doing? A guidebook of natural and social indicators for evaluating marine protected area management effectiveness*. IUCN, Protected Areas Program; WWF; United States, NOAA.
- SAFMC. 2009. Regulations for deepwater marine protected areas in the South Atlantic. South Carolina Sea Grant Extension Program.
- SAFMC. 2007. Snapper Grouper Amendment Number 14. South Atlantic Fishery Management Council, Charleston, South Carolina. 601 p.
- SAFMC. 2006. Public Hearing Draft, Snapper Grouper Amendment 14. South Atlantic Fishery Management Council, Charleston, South Carolina. 440 p.
- SAFMC. 2005. Final Evaluation Plan for the *Oculina* Experimental Closed Area. South Atlantic Fishery Management Council, Charleston, South Carolina. 84 p.
- Salm, R.V., J. Clark, and E. Siirila (2000). *Marine and Coastal Protected Areas: A guide for planners and managers*. IUCN. Washington DC. xxi + 371pp.
- U.S. Department of Commerce. 2007. Florida Keys National Marine Sanctuary: Revised management plan. NOAA. 369 p.

Contributors/Authors:

Amber VonHarten
Kim Iverson
Michelle Tishler