Excerpts from Spawning SMZs System Management Plan for LEAP

Executive Summary

The South Atlantic Fishery Management Council (Council) is proposing the implementation of Spawning Special Management Zones (Spawning SMZs) in five areas off Florida, North Carolina, and South Carolina. The areas are known as South Cape Lookout (NC), Areas 51 and 53 (SC), Devil's Hole/Georgetown Hole (SC), and Warsaw Hole (FL). The Council and its partners have developed this System Management Plan (SMP) for the proposed Spawning SMZs. The SMP serves as the framework for resource protection, research and monitoring, outreach, administration, and evaluation of the proposed areas. The intent is for researchers and managers, using the SMP as a guide, to employ adaptive-management techniques in studying and managing these sites; that is, a decision-making process that evolves over time with the goal to improve management through system monitoring.

The Council wants to protect important spawning areas to enhance spawning through proposed Spawning SMZs. A spawning area is defined as a location where fish have been observed spawning or histology confirms a fish was in spawning condition. The Council proposes that, within the Spawning SMZs, fishing for, possession of, and retention of 59 species of snappers and groupers be prohibited; however, harvest and possession of other species, such as dolphin, mackerel, and tuna, would be allowed. By prohibiting fishing for all snapper and grouper species in the area, bycatch and potential release mortality would be reduced.

The SMP includes goals and objectives to guide researchers and managers, background on Spawning SMZs and existing knowledge gaps, management action items with strategies, potential methods to evaluate management effective, financial plan, timeline, and site characterizations for each proposed Spawning SMZ as well as data collected in the area.

Management Action Items

The SMP contains management action items and strategies to achieve those items. These items are actions that can be taken by partners such as managers, law enforcement personnel, scientists, and education and outreach specialists to achieve goals and objectives of the Spawning SMZs. Action items were created and separated into four different groups: research and monitoring, outreach and education, resource protection, and administrative. The Research and Monitoring Action Items were developed to locate spawning areas, characterize spawning areas, map with multibeam the proposed Spawning SMZs, and gather socioeconomic information. The Outreach and Education Action Items were developed to inform the public on the regulations and purpose for the protected areas and promote compliance, partnership, and ownership of the Spawning SMZs. The Resource Protection Action Items were developed to monitor compliance with Spawning SMZ regulations, train officers, coordinate and improve enforcement, and report enforcement activities. Finally, Administrative Action Items were created for the development of the SMP and an advisory panel to review draft evaluation reports.

Management Effectiveness Evaluation

The output from the completed and on-going action items will be included in regular Spawning SMZs evaluations, which are needed to ensure effective management. The evaluation of management effectiveness is separated into three categories: biophysical, socioeconomic, and

governance indicators. The biophysical indicators of management effectiveness include potential metrics that could be used to evaluate the biological aspects of Spawning SMZs including number of fish observed in spawning condition and amount of area mapped using multibeam. The socioeconomic indicators include potential metrics to evaluate the social and economic aspects including collect social and economic data and initiate a citizen science program. The governance indicators include potential metrics to evaluate the Spawning SMZs through the SMP and enforcement. Through evaluation of the indicators, partners can shift efforts to actions items that will best ensure protection of important spawning habitats and, if needed, changes to management of Spawning SMZs can be recommended by the SMP Advisory Panel, which will be appointed by the Council. The SMP Advisory Panel will be responsible for reviewing a rough draft of the Spawning SMZs Evaluation Plan and will provide suggestions to the Council regarding management recommendations.

Financial Plan and Timeline

A financial plan and timeline was developed for documenting estimated costs and tracking progress to accomplish action items.

Site Characterization

The SMP contains detailed information about the areas under consideration to be designated as Spawning SMZs. As currently proposed, the Spawning SMZs encompass 18.1 square miles of hard-bottom, live bottom, and artificial reefs located in federal waters. Fishery-independent research has been conducted in the most of the proposed areas and collected biological and bathymetric data are included. Additionally, citizen science was conducted by a commercial fisherman and a researcher in Devil's Hole to document spawning. Greater amberjack, speckled hind, red hind, red grouper, gag, scamp, graysby, silk snapper, and blueline tilefish have been collected in the proposed South of Cape Lookout Spawning SMZ. On proposed Area 51 and 53 Spawning SMZs (combined), greater amberjack, speckled hind, snowy grouper, warsaw grouper, scamp, and blueline tilefish have been collected in the proposed Devil's Hole Spawning SMZ. Fishery-independent biological data have not been collected for the proposed Warsaw Hole Spawning SMZ.

Resource Protection Action Items

Because the Council is proposing to allow certain fishing activities in the proposed Spawning SMZs (Type 2 protected area) and transit through the Spawning SMZs, enforcement of the areas will be challenging. The Law Enforcement Advisory Panel (LEAP) has advised the Council throughout the development of Amendment 36. The LEAP has developed recommendations for MPAs (SAFMC 2005) and the Spawning SMZs (SAFMC 2016). The Council followed those recommendations as closely as possible while balancing the biological, social, and economic objectives of Spawning SMZs.

Law enforcement partners were requested to provide information on the enforceability of Spawning SMZs and available assets that could be used to monitor them. State agencies and USCG is scheduled to provide enforceability rating for the Spawning SMZs at the March 2016 LEAP Meeting (**Table 3.4.1**). Two very large obstacles continue hinder enforcement of some Spawning SMZs: (1) distance from shore for the majority of Spawning SMZs and (2) Type 2

designation, which allows certain fishing activities to take place. Consequently, occasional flyovers by enforcement aircraft, drone, or satellite are not effective for enforcing regulations; therefore, on the water enforcement presence is necessary in order to determine whether the fishing activity is lawful or not.

The enforceability ratings will be based on the same criteria used in Snapper Grouper Amendment 14 (SAFMC 2007):

"A "HIGH" rating means that the area is easily accessible with the assets and personnel already in place. Such an area may already be patrolled and would not require additional assets. Additional funding **may** be required to maintain adequate enforcement patrols.

"A "**MODERATE**" rating indicates that with some additional assets, or the relocation of existing assets, patrols could be conducted from time to time and during targeted details. Additional funding **will likely** be required to increase the ability rating to "HIGH".

"A "LOW" rating means that patrols of the area would only occur during an organized enforcement detail with Federal partners such as NMFS or USCG. The States do not have the assets or personnel with the proper training to patrol the area. Additional funding will be essential to increase the ability rating."

Table 3.4.1. The enforceability rating of the Spawning SMZs in the South Atlantic. State ratings were developed by state enforcement agency in the closest state.

Spawning SMZ	Closest State	State Rating	USCG Rating (2015)
South of Cape Lookout	North Carolina		
Area 51	South Carolina		
Area 53	South Carolina		
Devil's Hole	South Carolina		
Warsaw Hole	Florida		

The available assets to monitor the Spawning SMZs vary by state and agency. NCDEQ currently has one vessel capable of traveling to the South of Cape Lookout Spawning SMZ; however funding for that vessel is currently under review. FWC has five high-speed offshore vessels on the east coast ranging in size from 33 to 40 foot and aircraft for offshore patrols. The recent acquisition of new vessels with soft collars allows FWC to cover a larger offshore area and to conduct inspections in various sea states. NOAA OLE has a 24 foot Rigid Hull Inflatable Boat (RHIB) for available surge operations. The USCG has several types of vessels available (**Table 3.4.2**).

Table 3.4.2. USCG enforcement assets available for monitoring the Spawning SMZs.

Surveillance Type Asset

On-Water	Coastal Patrol Boats (CPB) Fast Response Cutters (FRC) Medium Endurance Cutters (MEC) High Endurance Cutters (HEC)
Aerial	Helicopters (HH-60) Aircrafts (C-130)

As of June 2015, three Notices of Violation and Assessments (NOVA) were issued for violating regulations established for the other protected areas in the South Atlantic. The cases were either settled out of court or uncontested. In the uncontested case, the Administrative Law Judge used several pieces of evidence to support the default judgement that the fishermen violated the MSA including: the vessel was anchored inside an MPA, the fishing gear was not properly stowed, the fisherman was in possession of snapper-grouper species while inside a MPA, and the fishermen was liable for violating fishing regulations under the MSA. If NOVAs are issued for the Spawning SMZs, the regulations established for the Spawning SMZs might be challenged and changes to the regulations may be needed to improve adjudication in favor of the enforcement agencies.

The resource protection action items listed below aim to address the following goals and objectives of the SMP:

Goal 4:	Enhance enforceability and compliance within the Spawning SMZs
Obj. L:	Increase user participation in surveillance and monitoring.
Obj. M:	Maintain or improve surveillance and monitoring of Spawning SMZs via satellites, drones, research vessels, etc.
Obj. N:	Increase or maintain compliance with regulations within the Spawning SMZs through targeted communication.
Obj. O:	Improve or maintain application of law and regulations within the Spawning SMZs.
Obj. P:	Consider Law Enforcement AP recommendations for protected areas when developing, designating, and managing Spawning SMZs.

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

Action Item 1: Develop cooperative enforcement via intelligence and asset sharing, meetings, and training to encourage coordination of patrols and investigations.

Task: Schedule Spawning SMZ enforcement activities and challenges to be reported at LEAP annual meeting to coordinate patrols and investigations.

Justification: Coordination among enforcement agencies can help to minimize duplicative effort and provide better coverage with limited resources.

Deliverables: Oral report at LEAP meeting

Schedule: Ongoing—yearly

Budget: Office of Law Enforcement (OLE) partners' time, meeting cost done in conjunction with yearly LEAP meeting

Potential Partners/roles: USCG, NOAA OLE, FWC, GADNR, NCDEQ, SCDNR

Task: Continue officer training at the USCG Southeast Regional Fisheries Training Center. **Justification:** The Southeast Regional Fisheries Training Center has been a valuable asset for training state and federal resource officers in enforcement of fisheries regulations, including those pertaining to Spawning SMZs.

Deliverables: Trained officers Schedule: Ongoing—yearly Budget: Potential Partners/roles: USCG, NOAA OLE, FWC, GADNR, NCDEQ, SCDNR

Tasks: Develop a patrol/sortie reporting form and database for determining compliance in Spawning SMZs and develop centralized database for information access.

Justification: A standardized reporting form developed by the law enforcement partners would help collect data to improve frequency and effectiveness of enforcement patrols. A centralized database would assist in reporting of data to requesting agencies such as NMFS or SAFMC.

Deliverables: Form and database to calculate compliance.Schedule: Long-termBudget:Potential Partners/roles: USCG, NOAA OLE, FWC, GADNR, NCDEQ, SCDNR

Action Item 2: Ensure a "high" enforceability rating for the Warsaw Hole Spawning SMZ and at least "moderate" enforceability rating for the other Spawning SMZs.

Tasks: Purchase and maintain vessels capable of conducting offshore patrols and increase enforcement capacity to monitor Spawning SMZs.

Justification: Protection of Spawning SMZs is crucial to their success. Fishing incursions into the area could remove individuals from the population and prevent spawning enhancement and increased recruitment. Having enforcement assets to monitor Spawning SMZs is critical for preventing incursions into the area. If new vessels are needed for enforcement of Spawning SMZs off each of the states, a vessel costs approximately \$150,000 for a large center console vessel two outboard engines. Some states may require more than one vessel. Additional funds are needed to maintain current vessels. **Deliverables:** Vessels available for offshore patrol.

Schedule: Medium-/long-term (with funding)

Budget: \$200,000 per year

Potential Partners/roles: USCG, NOAA OLE, FWC, GADNR, NCDEQ, SCDNR

Action Item 3: Patrol Spawning SMZs with aerial and at-sea assets.

Tasks: Provide a deterrent presence within Spawning SMZs through routine aerial and at-sea patrols and schedule and conduct dedicated surge operations.

Justification: A deterrent presence is needed in Spawning SMZs to reduce incursions into the areas. Fishing incursions may prevent attainment of the stated biological goals of the Spawning SMZs. The estimate to the cost of a monitoring event for a Spawning SMZ included three patrol officers per event and each event lasted 12 hours. Cost per officer is approximately \$40 per hour, including all fringe values. The vessel operating cost is approximately \$100 per hour. This adds up to approximately \$2,640 per monitoring event. The budget is estimated assuming five monitoring events per Spawning SMZ and five Spawning SMZs.

Deliverables: Patrols conducted in Spawning SMZs. **Schedule:** Long-term (dependent on Action Item 2) **Budget:** \$66,000 **Potential Partners/roles:** USCG, NOAA OLE, FWC, GADNR, NCDEQ, SCDNR

Action Item 4: Initiate a remote monitoring program for Spawning SMZs.

Task: Review methods for remote monitoring in offshore areas.

Justification: Patrols in Spawning SMZs are expensive and can occupy an entire day for officers involved in the patrol. Frequently when patrols occur in protected areas, no vessels are sighted. Remote monitoring methods can provide information to enforcement agencies on dates or times when incursions are more likely to occur.

Deliverables: Report on remote monitoring methods.

Schedule: Short/medium-term

Budget: Staff time

Potential Partners/roles: NMFS MPA Center, NMFS Southeast Fishery Science Center (SEFSC), Southeast Coastal Ocean Observing Regional Association, National Ocean Service, SAFMC Staff

Task: Seek funding for remote monitoring of Spawning SMZs and implement program. **Justification:** Funding is limited in the South Atlantic Region for remote monitoring offshore areas. Additional funding will be required if a remote monitoring program is to be developed. The budget estimate is based on ten monitoring events for the five Spawning SMZs at an estimated cost of \$2,500 per event.

Deliverables: Grant/funding requests for monitoring offshore areas. **Schedule:** Long-term **Budget:** \$125,000 per year **Potential Partners/roles:** NMFS, SAFMC Staff

Action Item 5: Develop a citizen science/cooperative research program and database for reporting data collected in Spawning SMZs.

Tasks: Identify potential partners (federal and state resource agencies, non-governmental organizations (NGOs), academic institutions) to seek funding for a citizen science/cooperative research program focusing on Spawning SMZ compliance; conduct a review of existing citizen science and cooperative research programs to aid in the development of a citizen science program for the South Atlantic; and identify and develop a database to enter data collected in the Spawning SMZs through a citizen science/cooperative research program. **Justification:** Citizen science/cooperative research program would promote buy-in from the public and contribute to voluntary compliance over the long-term. Such programs also enhance education and outreach opportunities and promote resource stewardship.

Deliverables: A report on citizen science/cooperative research including potential partners, review of existing citizen science/cooperative research programs, and identifies potential a database to store data collected in Spawning SMZs through citizen science. **Schedule:** Short-term/ongoing

Budget: Potential Partners/roles: SAFMC, NMFS, FWC, GADNR, NCDEQ, SCDNR

Action Item 6: *Report enforcement and compliance activities to the South Atlantic Fishery Management Council.*

Task: Annually report enforcement and compliance activities at SAFMC Meetings.
Justification: Reporting on enforcement activities enables enforcement agencies to collaboratively review the patrolling of Spawning SMZs to determine if sufficient patrols have been conducted and keeps management informed of law enforcement activities.
Deliverables: Annual enforcement reports (at Council meetings).
Schedule: Short-term/ongoing
Budget: Law enforcement partners staff time
Potential Partners/roles: USCG, NOAA OLE, FWC, GADNR, NCDEQ, SCDNR

Action Item 7: *Provide compliance assistance to user groups through outreach and education.* Task: Communicate to the public about Spawning SMZs while on patrol in the vicinity of Spawning SMZs and at outreach and education events.

Justification: Communication by patrol officers can help to educate and increase the public's understanding on the importance of Spawning SMZs and regulations and increase compliance.

Deliverables: Increased public awareness.
Schedule: Ongoing
Budget: Law enforcement partners staff time
Potential Partners/roles: USCG, NOAA OLE, FWC, GADNR, NCDEQ, SCDNR

Action Item 8: Encourage North Carolina to commit to a JEA with NOAA.

Task: Have the SAFMC Chair send a letter encouraging North Carolina to commit to the JEA with NOAA.

Justification: Currently North Carolina is the only state in the South Atlantic region without a JEA. This limits their ability to enforce federal regulations for all vessels in federal waters. The JEA could also provide funds for purchasing assets or maintaining current assets for patrols in federal waters.

Deliverables: Letter sent to NCDEQ. **Schedule:** Long-term **Budget:** \$0 **Potential Partners:** SAFMC

Action Item 9: Monitor and improve adjudication of Spawning SMZ regulations.

Tasks: Monitor court decisions and orders to track adjudication of Notices of Violation and Assessment in the Spawning SMZs and, if needed, recommend modifications to regulations or other actions to improve adjudication in favor of enforcement agencies.

Justification: Regulations must be enforceable, and monitoring enforcement decisions and orders provides an opportunity to determine if current regulations should be altered or if other

actions by the Council are needed. **Deliverables:** Annual oral updates at LEAP meeting. **Schedule:** Short-term **Budget:** Staff time **Potential Partners/roles:** SAFMC, USCG, NOAA OLE, FWC, GADNR, NCDEQ, SCDNR, NOAA General Counsel Enforcement Section

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Governance Indicators

The governance indicators of Spawning SMZs focuses on the SMP after the Spawning SMZs have been created. Selection of Spawning SMZs is a management decision for the Council and needs to be considered in the amendment process. The governance indicators cover important aspects of managing Spawning SMZs including review of Spawning SMZs, development of the SMP, outreach, compliance with rules and regulations, and enforcement of regulations. Indicators should be addressed on a site specific basis if possible.

Table 3.5.4.1. Governance metrics for establishing and utilizing the SMP for Spawning SMZs.

Metric	Yes/No
SMP formed.	
Evaluation conducted.	
SMP AP met.	

 Table 3.5.4.2.
 Governance outreach metrics for evaluating Spawning SMZs.

Metric	Yes/No
Short-term outreach action items created.	
Outreach items updated and web page developed with new management regulations.	
Point of Contact (POC) designated for Spawning SMZs in SAFMC, SERO, and SEFSC.	
List of key contacts created.	
SAFMC communicate with key contacts 2 times per year.	
Collaboration with agencies and organizations for teacher workshops	
initiated and maintained.	
Download of boundary files for use with GPS units tracked.	
Polls developed to track stakeholder's knowledge of Spawning SMZs.	
Questions added regarding Spawning SMZs during interviews with	
fishermen.	

Table 3.5.4.3. Governance law enforcement metrics for evaluating Spawning SMZs.

Enforcement	Yes/No
Number of patrols exceeds 5 patrols/year/ Spawning SMZ. Enforcement vessels in state adjacent to Spawning SMZ increased or maintained. Updates on enforcement and adjudication provided to the Council regarding Spawning SMZs. Enforceability ratings maintained or increased for Spawning	
SMZs.	

Table 3.5.4.4. Governance compliance metrics for evaluating Spawning SMZs.

Metric	Yes/No
Number of citations is greater than 2/year.	100/110
Percent of patrols with violation is less than 20%/year.	
Remote monitoring methods for Spawning SMZs reviewed.	
Remote monitoring method for Spawning SMZs recommended.	
Citizen Science Program developed.	

Financial Plan

Estimated costs in the tables below were based on cost estimates in 2015. The costs will need to be updated over time as the SMP is modified to match the goals and objectives and reflect current prices.

Table 3.6.1.	Estimated	costs of	Resource	Protection	Action Items.
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Passuras Protection Action Itoms (AT)		Estima	ate Annual Co	ost		
Resource Protection Action Items (AI)	Year 1	Year 2	Year 3	Year 4	Year 5	
AI 1: Establish cooperative enforcement	\$0	\$0	\$0	\$0	\$0	In conjunction with LEAP meeting
AI 2: Maintain or increase enforceability	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
AI 3: Patrol Spawning SMZs	\$ 66,000	\$ 66,000	\$ 66,000	\$ 66,000	\$ 66,000	\$330,000
AI 4: Establish Remote Monitoring Program	\$0	\$125,000	\$125,000	\$125,000	\$125,000	\$500,000
AI 5: Establish Citizen Science Program for estimating enforcement effort and database						
AI 6: Report enforcement and compliance activities to SAFMC	\$0	\$0	\$0	\$0	\$0	\$0
AI 7: Provide compliance assistance to stakeholders	\$0	\$0	\$0	\$0	\$0	\$0
AI 8: Encourage NC to commit to JEA with NOAA	\$0	\$0	\$0	\$0	\$0	\$0
AI 9: Monitor or improve adjudication	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL Budget:	\$266,000	\$391,000	\$391,000	\$391,000	\$391,000	\$1,830,000

Table 3.6.2. Estimated costs of Research and Monitoring Action Items.	
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Bessereh and Manitaring Action Itams (AI)	Est	Total Estimated				
Research and Monitoring Action Items (AI)	Year 1	Year 2	Year 3	Year 4	Year 5	Cost Over 5 Years
AI 1: Locate spawning areas (cost per site)	\$50,000 per site	\$250,000				
AI 2: Determine pre-closure species distribution	Staff Time	Staff Time				Staff time
AI 3: Locate nursery sites						
AI 4: Model larval dispersal						
AI 5: Monitor Spawning SMZs						
AI6: Track fish within Spawning SMZs	>\$1,000,000	>\$500,000	>\$500,000	>\$500,000	>\$500,000	>\$3,000,000
AI 7: Characterize spawning indicators						
AI 8: Characterize fish communities within Spawning SMZs						
AI 9: Mapping of the Spawning SMZs with multibeam						
AI 10: Mapping of the area around Spawning SMZs with multibeam						
AI 11: Ground truth the habitat classification						
AI 12: Develop habitat classification maps						
AI 13: Develop socioeconomic study						
AI 14: Track stakeholder knowledge about Spawning SMZs						
AI 15: Monitor stakeholder perceptions about Spawning SMZs						
AI 16: Engagement of stakeholders in Citizen Science Program						
TOTAL Budget:						

Outreach Action Items (AI)		Total Estimated				
	Year 1	Year 2	Year 3	Year 4	Year 5	Cost Over 5 Years
AI 1: Work with fishing chart manufacturers to include Spawning SMZs on paper and electronic charts	TBD	\$1,000	TBD	TBD	TBD	\$1000 but dependent on manufacturer approached
AI 2: Develop Spawning SMZ boundary map files for GPS units	\$1,000	\$1,500	\$500	\$250	\$250	\$3,500
AI 3: Develop new rack cards into mobile app, SA Fishing Regulations	\$200	\$0	\$0	\$0	\$0	\$200
AI 4: Develop video presentation	\$0	\$10,000	\$0	\$0	\$0	\$10,000
AI 5: Expand the Managed Areas web pages with new products on Spawning SMZs	\$0	\$2,000	\$0	\$0	\$0	\$2,000
AI 6: Develop list of key contacts for outreach efforts and materials	\$0	\$0	\$0	\$0	\$0	\$0
AI 7: Develop area-specific rack cards for Spawning SMZs	\$1,000	\$1,500	\$500	\$250	\$250	\$3,500
AI 8: Develop SAFMC Spawning SMZ brochure (website only)	\$0	\$2,000	\$0	\$0	\$0	\$2,000
AI 9: Develop and distribute news releases	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL Budget:	\$2,200	\$18,000	\$1,000	\$500	\$500	\$22,200

Table 3.6.3. Estimated costs of Outreach and Education Action Items. Action items are listed in ranked order.

Table 3.6.4. Estimated costs of Administrative Action Items. All action items are a high priority.

Administrative Action Items (AI)	Estimated Annual Cost					Total Estimated
	Year 1	Year 2	Year 3	Year 4	Year 5	Cost Over 5 Years
AI 1a: Develop SMP for Spawning SMZs	\$10,000	\$0	\$0	\$0	\$0	\$10,000
AI 1b: SMP Review by SMP AP at annual meeting	\$0	\$5,000	\$5,000	\$5,000	\$0	\$15,000
AI 1c: Five Year Review	\$0	\$0	\$0	\$0	\$15,000	\$15,000
TOTAL Budget:	\$10,000	\$5,000	\$5,000	\$5,000	\$15,000	\$40,000

Timelines

The first Spawning SMZ Evaluation Report will be submitted by a Council-specified date. The SMP IPT will provide data for the Spawning SMZ Evaluation Report and the SMP AP should evaluate the size, configuration, and regulations of the Spawning SMZs, as well as objectives, goals, tasks, and metrics. Each subsequent review of the Spawning SMZs should be conducted based on terms of reference developed through the Council. The SMP IPT should convene well before the report due date to allow sufficient time for compilation of material, construction of the report, preliminary evaluation and recommendations from the SMP AP, reviews by each of the committees, and final review of the report by the SMP AP prior to submission to the Council. The timeline for submission to the Council should also consider the rule-making process if a sunset provision is retained for South of Cape Lookout, Devil's Hole, and Warsaw Hole Spawning SMZs.

Within the SMP, each action item has a schedule associated with it or is listed as short-term, medium-term, long-term, or ongoing. Short-term action items could be initiated or completed within two years. Medium-term action items could be initiated or completed within five years. Long-term action items are not likely to be completed within ten years. Some projects once initiated will be moved to ongoing projects.