Amendment 46 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region

Options Paper

Amendment 46 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Amendment 46) would address fishing level specifications for red snapper in response to the stock assessment and revise management measures, revise private recreational reporting requirements, and adjust powerhead regulations.

11/10/2017

Purpose for Action

The *purpose* of Snapper Grouper Amendment 46 is to revise annual catch limits, management reference points, and management measures based on revised catch level recommendations for red snapper, improve catch and release estimates for snapper grouper species, reduce bycatch in the snapper grouper fishery, and enable equitable access for fishermen participating in the snapper grouper fishery.

Need for Action

The *need* for the amendment is to prevent overfishing and rebuild the red snapper stock using the best scientific information available, improve data collection for snapper grouper species, reduce bycatch of red snapper and other snapper grouper species, and enable equitable access to the dive component of the snapper grouper fishery while minimizing, to the extent practicable, adverse social and economic effects.

Why is the Council Considering Action?

Additional management measures or modifications to current management measures for red snapper are needed to end overfishing of red snapper while continuing to rebuild the stock based on the most recent red snapper stock assessment for the South Atlantic region (SEDAR 41 2017). The Council's Scientific and Statistical Committee (SSC) reviewed the assessment and discussed an acceptable biological catch (ABC). The SSC's previous ABC recommendations for 2012-2019 were much higher than the recommended ABCs from the most recent assessment for the same time period (SEDAR 41 2017). Likely factors for the decrease in the ABC include changes in selectivity, changes in recreational catch estimation methods, modifications to input data, and new scientific information on natural mortality and reproduction.

As of November 2017, the SSC has not provided an ABC recommendation for red snapper based on Revised SEDAR 41. At the October 24-26, 2017, the SSC developed a sub-panel of the SSC to develop an ABC that could be effectively monitored to prevent overfishing and enable the red snapper population to rebuild. Once the SSC develops a method or methods to develop an ABC that can be effectively monitored, the Council may modifying existing management criteria and management measures for red snapper to prevent overfishing of red snapper while continuing to rebuild the stock so it may produce optimum yield, minimize to the extent practicable adverse social and economic effects, minimize bycatch and dead discards, and improve data collection.

A major factor that prevented the SSC from being able to provide an ABC recommendation for red snapper was due to the uncertainty in the estimate of fish that were released dead. The NMFS cautioned the Council in using the estimate of released fish in management due to uncertainty and upcoming changes the estimate methods. These changes are likely to result in very different estimates of recreational landings and released red snapper (and many other recreationally caught species).

To aid in the improvement of recreational estimates, the Council may consider developing a permit or reporting requirement for red snapper and other snapper grouper species. Red snapper and other snapper grouper species are rarely encountered through the survey used to develop recreational catch (landings + released) estimates from the charter boat and private recreational components of the recreational sector. Permits and reporting requirements can be designed in many different ways to improve the estimate of landed and released fish.

Although the absolute number of red snapper released has been questioned, the increasing trend in the number of released fish has been reported by fishermen and observed in the release estimates. As the number of released fish increases, a portion of the fish will die due to foul hooking, issues caused by barotrauma (injury due to expansion of gas when reeled up from depth), and predation when released. To improve the survivorship of released fish and reduce the number of released fish, best fishing practices can be considered by the Council as either mandatory or voluntary options.

Another issue that has been identified by fishermen is unequitable access for the dive component of the snapper grouper fishery. Powerheads or bang sticks (spears with a charge that is fired when in contact with target) are not allowed in federal waters off South Carolina. To have more equitable access for the dive component, the Council may consider lifting the powerhead prohibition in federal waters off South Carolina.

How Does This Amendment Match the Council's 2016-2020 Vision Blueprint for the Snapper Grouper Fishery?

The 2016-2020 Vision Blueprint for the Snapper Grouper Fishery (Vision Blueprint) was approved in December 2015 and is intended to inform management of the snapper grouper fishery through 2020. As such, the Vision Blueprint serves as a "living document" to help guide future management, builds on stakeholder input and how the South Atlantic Council envisions future management of the fishery, guides the development of new amendments that address priority objectives and strategies, and illustrates actions that could be developed through the regular amendment process. The Vision Blueprint is organized into four strategic goal areas: (1) Science, (2) Management, (3) Communication, and (4) Governance. Each goal area has a set of objectives, strategies, and actions. The actions in Amendment 46 correspond to different objectives and strategies in the Vision Blueprint.

Amendment 46 **Actions 1-5** correspond to directly to mandates in the Magnuson-Stevens Fishery Conservation and Management Act (MSA). **Actions 1- 5** address revising maximum sustainable yield, minimum stock size threshold, annual catch limits, annual catch targets, and optimum yield. These management actions are part of the mission statement for the Vision Blueprint by meeting the mandates of the MSA and National Standards of the MSA. The

alternatives for each action provide a range of management alternatives while meeting the requirements of the law.

During Visioning several fishermen stated they did not want to have additional closed areas. Some fishermen stated they wanted to have an opportunity to keep red snapper. In 2015 and 2016, red snapper mini seasons were not allowed because the acceptable biological catch was exceeded. A new acceptable biological catch is being developed by the Scientific and Statistical Committee and it is not known how that new acceptable biological catch will compare with the acceptable biological catch in Amendment 28 and annual catch limit in Amendment 43. The Council will consider different management measures to allow for some harvest of red snapper and reduce bycatch of red snapper. **Action 6** would close potential fishing areas for all snapper grouper fishing to reduce bycatch of red snapper. **Action 7** considers several commercial management measures, which would be designed to keep harvest of red snapper under an annual catch limit. The measures include commercial season for red snapper, trip limit, and size limit. **Action 8** considers several recreational management measures, which would be designed to keep harvest of red snapper under an annual catch target. These measures include recreational season for red snapper, size limit, bag limit, and an allowable recreational fishing area.

During Vision Meetings and scoping of Amendment 43, fishermen requested a recreational stamp/permit for snapper grouper fishing, **Action 9,** and to improve recreational estimates by requiring recreational fishermen to report their catch, **Action 10**. Several fishermen expressed concern with the estimates of harvest from the Marine Recreational Information Program. These actions would be used to develop a new method to estimate private recreational harvest. Headboats are required to fill out a logbook for every trip and there is an amendment in development to require charter boats to submit electronic logbooks for each trip. Commercial fishermen must submit logbooks for each trip.

Action 11 includes best fishing practices to reduce the bycatch and discard mortality of red snapper. Some of the alternatives were suggested during Vision Meetings including the use of single hook rigs for when targeting deepwater species and requiring descending devices. The circle hook alternatives were developed based on management in other areas and include an option to remove circle hooks.

Action 12 includes accountability measures and adaptive management for red snapper. The landings and discards were approximately two times the acceptable biological catch in 2014 and 2015. The management measures in **Actions 6-8** are designed to keep the number landed below the annual catch limit and reduce red snapper releases and **Action 12** is designed to improve the survivorship of released fish. However it is not known how effective the management measures will be at reducing the catch and improving survivorship. If management is not effective, then accountability measures included in **Action 12** will take effect to reduce catch and dead releases. The accountability measures will include changes in management due to exceeding the landings annual catch limit or exceeding the acceptable biological catch. The accountability measures could be set up to change management measures for components of the fishery that exceed the annual catch limit or have the greatest amount of bycatch.

What are the Scientific Recommendations from the Assessment and SSC Review?

An update to the stock assessment for red snapper in the southeastern U.S. (SEDAR 41 2017) was conducted in 2015-2017 with data through 2014. The SSC reviewed the results at their May 3-5, 2016 and April 25-27, 2017 meetings and were not able to provide an ABC recommendation that could be effectively monitored and tracked. NMFS informed the Council in a letter dated March 3, 2017 that "based on the results of SEDAR 41 (2017) the red snapper stock was still overfished, but was rebuilding in accordance with the rebuilding plan, and that adequate management action has been taken to address overfishing of red snapper and continue to rebuild the stock through harvest prohibitions in 2015 and 2016". Although the stock assessment was sufficient to give stock evaluation (overfished and overfishing), it has not been used to develop acceptable biological catch recommendations due to uncertainty in the estimates of release red snapper. The SEFSC stated in their January 18, 2017, letter that uncertainty in SEDAR 41 (2017) inhibits the ability to set an ABC that can be effectively monitored. Additionally, on April 21, 2017, the SEFSC stated that the use of an ABC based primarily on fishery discards for monitoring the effectiveness of management action is likely ineffective due to uncertainty in measures of discards and changes in the MRIP effort estimation methodology. Given these concerns, the SSC developed a sub-panel to develop an ABC that could be effectively monitored to prevent overfishing and enable the red snapper population to rebuild. The current timeline for the sub-panel is to present options for an acceptable biological catch at the April 2018 meeting.

Table 1. Red Snapper management values from the Revised SEDAR 41 (SEDAR 41 2017).

Criteria	Deterministic
Overfished evaluation ($SSB_{2014}/SSB_{30\%}$)	0.15
Overfishing evaluation	$F_{12-14}/F_{30\%} > 1$
MFMT ($F_{30\%}$)	0.15
$SSB_{30\%}$ (Eggs 1E8)	327,706
MSST (Eggs 1E8)	254,779
MSY (1000 lb)	427
Y at 75% $F_{30\%}$ (1000 lb)	395
ABC Control Rule Adjustment	Under Rebuilding
P-Star	Under Rebuilding

Snapper Grouper Amendment 11 (SAFMC 1999) specified $F_{30\%}$ as a proxy for F_{MSY} and the corresponding yield as a proxy for Maximum Sustainable Yield (MSY) and Amendment 17A (SAFMC 2010) specified the yield at 98% of $F_{30\%}$ as a proxy for the ABC during the rebuilding period. The SSC discussed different proxies for MSY suggested by the Council at the SSC's meeting in May 2016. The SSC noted there was very little difference in the red snapper MSY proxies and the stock status would not change under the different MSY proxies.

How are Red Snapper Seasons in the South Atlantic Currently Determined?

SEDAR 24 (2010) determined the red snapper stock to be overfished and undergoing overfishing. In response to the stock assessment, the Council recommended implementing the moratorium through Snapper Grouper Amendment 17A (SAFMC 2010). In 2013, a method to annually evaluate whether a limited red snapper season could occur was developed and implemented through Amendment 28 (SAFMC 2013). The method to calculate the ACL from the ABC is based on the total red snapper removals in previous years (dead discards + landings). If total removals (dead discards + landings) exceed the ABC in the year prior, then the ACL equals 0. If the total removals are less than the ABC, the ACL is based on average percent harvest (dead discards + landings) over the past two years reduced from the current year's ABC.

Based on this method, a limited red snapper seasons occurred in 2012, 2013, and 2014. However, the red snapper removals (landings + dead discards) in 2014, 2105, and 2016 exceeded the ABC; therefore, the subsequent seasons' ACLs were set to zero and harvest of red snapper was not allowed in 2015 or 2016. Dead discards were the primary source (99%) when the ABC was exceeded in 2015 and 2016. However, SSC and NMFS recommended using caution when using red snapper releases in management because the estimates of releases were highly uncertain and a new method for recreational catch and discards was being developed for use in 2018. To avoid using the discards in management and allow for some harvest of red snapper, Amendment 43 was developed to revise the process to set an ACL for red snapper. Amendment 43 will set the ACL at 42,510 fish if approved by the NMFS. Amendment 46 will look at revising the ACL based on ABC recommendations from the SSC that are projected to be available at the April 2018 SSC meeting.

Table 2. Previous ACL for red snapper from 2012 through 2017, landings from 2012 through 2016, and landings plus dead discards from 2012 through 2016. Bolded values indicate the ABC was exceeded.

Year	ACL for Landings only (Numbers of Fish)	Landings (Numbers of Fish)	Landings + Dead Discards* (Numbers of Fish)
2012	13,067	16,591	80,516
2013	13,325	11,767	72,881
2014	31,387	42,510	**205,859**
2015	0	2,850	**276,729**
2016	0	884	**406,195**

2017	42,510***		
2018	TBD^		
2019	TBD^		

*Source: NMFS Red Snapper Season Presentation to SAFMC June each year.
**One landings estimate through Marine Recreational Fisheries Statistics Survey (MRFSS) and one with landings was estimated from a study conducted by Florida Fish and Wildlife Research Institute (FWRI). The 72,881 from FWRI was accepted as the estimate of landings.
***Established through emergency rule.
^TBD=waiting for approval of Amendment 43. If approved, ACL will be 42,510 fish.

Possible Actions and Alternatives

Action 1. Revise Maximum Sustainable Yield (MSY) for Red Snapper in the South Atlantic Region

Alternative 1 (No Action). Currently, maximum sustainable yield (MSY) equals the yield produced by F_{MSY}. $F_{30\%SPR}$ is used as the F_{MSY} proxy.

Alternative 2. MSY equals the yield produced by F_{MSY} or the F_{MSY} proxy based on the most recent SSC recommendation of F_{MSY} or its proxy.

Alternative 3. MSY equals the yield produced by F_{Max} based on the most recent SSC recommendation.

Alternative 4. MSY equals the yield produced by $F_{26\%SPR}$ based on the most recent SSC recommendation.

Alternative 5. MSY equals the yield produced by $F_{40\%SPR}$ based on the most recent SSC recommendation.

Discussion:
Maximum sustainable yield (MSY) is the largest long-term average catch that can be taken from a stock or stock complex under prevailing ecological and environmental conditions. MSY for snapper grouper species was initially specified in Amendment 11 (SAFMC 1998) to the Snapper Grouper FMP. **Alternative 1** uses the proxy to calculate the MSY established in Amendment 11, $F_{30\%SPR}$ (SAFMC 1998). **Alternative 2** has similar wording to **Alternative 1** but it is intended to enable implementation a new MSY based on recommendation from the SSC without an amendment to the fishery management plan. For the alternatives, MSY values (**Table 3**) attributes and rebuilding projections will vary due to changes in the MSY proxy.

As a benchmark, MSY establishes a value that other parameters use to condition subsequent management actions, and as such, defining MSY takes special significance. The setting of MSY does not have direct negative or positive biological impacts. Of the alternatives considered in this action, **Alternative 2**, which address the most recent SSC, have a better scientific basis. Hence, they provide a more solid ground for management actions that have economic implications.

Table 3. Alternatives for setting MSY or its proxy and MSY Values.

Alternatives	Equation	F_{MSY}	MSY Values (Numbers of Fish)
Alternative 1 (No Action)	MSY equals the yield produced by F_{MSY}.	$F_{30\%SPR}$= 0.204*	75,000 (1,926,000 lbs)*

Alternative 2	$F_{30\%SPR}$ is used as the F_{MSY} proxy.		
	MSY equals the yield produced by F_{MSY} or the F_{MSY} proxy based on the most recent SSC recommendation of F_{MSY} or its proxy.	F_{MSY} or F_{MSY} proxy	

* Estimates from SEDAR 24 and Amendment 28.

COMMITTEE ACTION:

OPTION 1. APPROVE INCLUSION OF ACTION 1 IN AMENDMENT 46 AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 1 FOR DETAILED ANALYSIS.

OPTION 2. ADD/MODIFY ALTERNATIVES UNDER ACTION 1 (COMMITTEE TO SPECIFY) AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 1 FOR DETAILED ANALYSIS.

OPTION 3. DO NOT APPROVE INCLUSION OF ACTION 1 IN AMENDMENT 46.

OPTION 4. OTHERS??

Action 2. Specify Minimum Stock Size Threshold (MSST) for Red Snapper in the South Atlantic Region

Alternative 1 (No Action). MSST = 75% of SSB_{MSY}.

Alternative 2. MSST = 50% of SSB_{MSY}

Alternative 3. MSST = SSB at $XX_{\% SPR}$

Alternative 4. MSST = 85% of SSB_{MSY}

Discussion:

Regulatory Amendment 21, effective November 6, 2014, changed the definition for MSST for select snapper grouper species with low natural mortality (M) from MSST = SSB_{MSY}*((1-M) or 0.5, whichever is greater) to MSST = 75% SSB_{MSY}, where SSB_{MSY} is the spawning stock biomass then the stock is at the equilibrium maximum sustainable yield. When the natural mortality rate is low, less than 0.25, even small fluctuations in biomass due to natural variations not related to fishing mortality may cause a stock to vary between an overfished or rebuilt condition. When a species is identified as overfished, the Magnuson-Stevens Act requires that a plan be implemented to rebuild the stock. The snapper grouper species with low natural mortality rates addressed in Regulatory Amendment 21 were red snapper, blueline tilefish, gag, black grouper, yellowtail snapper, vermilion snapper, red porgy, and greater amberjack. Redefining MSST for these species was done to help prevent unnecessary overfished designations when small drops in biomass are due to natural variation in recruitment or other environmental variables, and ensure that rebuilding plans are applied to stocks when truly appropriate. The SEDAR 41 Assessment (2016) estimated a constant natural mortality for red snapper at 0.137, which is within the range of natural mortality values for species addressed in Regulatory Amendment 21 (0.08 – 0.23).

The SSB is measured in number of eggs produced by the mature female population. The SSB at the current MSY proxy ($F_{30\%}$) is 32.9 trillion eggs spawned based on SEDAR 41. The resulting MSST using 75% of SSB_{MSY} (**Alternative 1**) and based on results from SEDAR 41 would be 26.4 trillion eggs spawned (**Table 4**). The MSST value for **Alternative 2** is lower than that under **Alternative 1** and would provide a larger buffer from MSY before the stock is declared overfished. The tradeoff with lower MSST values is that the number of eggs produced when the stock is at a low level would also be lower, which could translate into less fish available to catch. The egg production at MSST ($F_{30\%}$) for **Alternative 2** is 16.4 trillion eggs which is approximately 8 trillion eggs lower than **Alternative 1**. The MSST ($F_{30\%}$) for **Alternative 4** is approximately 27.9 trillion eggs, which is closest to the MSY proxy.

Table 4. Alternatives to calculate the MSST equation and the resulting number of eggs produced for **Action 1** alternatives.

		MSST Values*(Trillion Eggs Spawned)	
Alternatives	**MSST Equation**	**Action 1 Alt 1.**	**Action 1 Alt 2.**
Alternative 1 (No Action)	MSST = 75% of SSB_{MSY}	24.6	
Alternative 2	MSST = 50% of SSB_{MSY}	16.4	
Alternative 3	MSST = SSB at $xx_{\%SPR}$		
Alternative 4	MSST= 85% of SSB_{MSY}	27.9	

*Values developed from a formula using the most recent SSC recommendation. The values in this amendment were based on output from SEDAR 41.

COMMITTEE ACTION:

OPTION 1. APPROVE INCLUSION OF ACTION 2 IN AMENDMENT 46 AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 2 FOR DETAILED ANALYSIS.

OPTION 2. ADD/MODIFY ALTERNATIVES UNDER ACTION 2 (COMMITTEE TO SPECIFY) AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 2 FOR DETAILED ANALYSIS.

OPTION 3. DO NOT APPROVE INCLUSION OF ACTION 2 IN AMENDMENT 46.

OPTION 4. OTHERS??

Action 3. Revise Annual Catch Limits (ACLs) for Red Snapper in the South Atlantic Region

Alternative 1 (No action). The commercial and recreational ACLs for red snapper are zero. However, if NMFS determines that the previous year's estimated red snapper landings and dead discards are less than the ABC, a limited red snapper harvest and possession may be allowed for the current fishing year and the commercial and recreational ACL values would be determined using the formula established in Amendment 28.

Alternative 2. Specify ACLs for red snapper using the resulting ABC from the most recent SSC recommendation for **landings and dead discards** using the existing sector allocations for landings (*commercial 28.07% and recreational 71.93%*). The ACL would remain in place until a new ACL is specified. The commercial and recreational ACLs are specified in numbers of landed fish:

Sub-alternative 2a. ACL = ABC (**landings and discards**)
Sub-alternative 2b. ACL = 95% ABC (**landings and discards**)
Sub-alternative 2c. ACL = 90% ABC (**landings and discards**)

Alternative 3. Specify ACLs for red snapper using the resulting ABC from the most recent SSC recommendation for **landings** using the existing sector allocations for landings (*commercial 28.07% and recreational 71.93%*). The ACL would remain in place until a new ACL is specified. The commercial and recreational ACLs are specified in numbers of landed fish:

Sub-alternative 2a. ACL = ABC (**landings**)
Sub-alternative 2b. ACL = 95% ABC (**landings**)
Sub-alternative 2c. ACL = 90% ABC (**landings**)

Discussion:

Amendment 43 (SAFMC 2017) is under review and would set the ACL at 42,501 fish, if approved. Until Amendment 43 is approved, the method to determine the ACL and if a season is allowed (**Alternative 1**) was developed in Amendment 28. The ACL is set to zero for recreational and commercial fisheries. However if the ABC (landings and dead discards) is not exceeded in the previous year, then a limited red snapper harvest and possession may be allowed. The harvest is calculated using an equation established in Amendment 28. If the ABC in the prior fishing year is exceeded, then the ACL in the following year would be set equal to zero. If the ACL is negative (dead discards plus landings exceeds the ABC for the two previous years), a season is not allowed. If the ACL is positive, then the ACL is the reduced from the ABC based on the ratio in the equation above.

Alternative 2 would remove the equation developed in Amendment 28 to calculate the ACL. The commercial allocation is 28.07% of the total ACL and the recreational allocation is 71.93% based on weight of fish as specified through the Comprehensive ACL Amendment (SAFMC 2011). Although the allocation has been based on weight of fish, the ABC has been based on numbers of fish due to the inclusion of dead discards. The fishery dependent reporting requirement for discards and reporting method through fishery dependent sampling programs

report numbers of fish, and limited information is available on the size and weight of the discarded fish. Therefore, the ACL for red snapper has been expressed as numbers of fish.

The commercial ACL in whole weight will be calculated by multiplying the total weight of the ACL by the commercial allocation (28.07%). The commercial ACL in gutted weight was calculated by using the whole weight to gutted weight ratio developed in SEDAR 41 (2016), which was 1.1.

The recreational ACL in numbers of fish will be calculated by subtracting the commercial sector ACL converted to numbers of fish from the total ACL in numbers of fish. Since the commercial ACL is calculated in pounds of fish, commercial pounds of fish will be converted to numbers of fish based on average weight of red snapper caught in the commercial sector from 2012 to 2014 (9.71 lbs ww) (SEDAR 41 2017). The commercial numbers of fish is then subtracted from the total ACL to get the recreational ACL.

COMMITTEE ACTION:

OPTION 1. APPROVE INCLUSION OF ACTION 3 IN AMENDMENT 46 AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 3 FOR DETAILED ANALYSIS.
OPTION 2. ADD/MODIFY ALTERNATIVES UNDER ACTION 3 (COMMITTEE TO SPECIFY) AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 3 FOR DETAILED ANALYSIS.
OPTION 3. DO NOT APPROVE INCLUSION OF ACTION 3 IN AMENDMENT 46.
OPTION 4. OTHERS??

Action 4. Establish a Recreational Annual Catch Target (ACT) for Red Snapper in the South Atlantic Region

Alternative 1 (No Action). A recreational annual catch target (ACT) is not specified for red snapper in the South Atlantic Region.

Alternative 2. ACT = recreational ACL*(1-average 2012 to 2015 PSE) or ACL*0.5, whichever is greater.

Alternative 3. ACT =85% recreational ACL

Alternative 4. ACT = 75% recreational ACL

Alternative 5. ACT = 65% recreational ACL

Alternative 6. ACT = Recreational ACL * (1 - Average of ($Landings_{year} - ACL_{year}$)/$ACL_{year}$) for the years 2012 to 2014. If landings do not exceed the ACL, the difference is set to zero.

Discussion:

The annual catch target (ACT) can be used to limit catch at or below the ACL to account for management uncertainty. Since the ACT is set lower or equal to than the ACL for any given species, using an ACT rather than the ACL as a trigger for an in-season accountability measures (AMs) in the recreational sector may prevent an ACL overage. This more conservative approach would likely help to ensure that recreational data uncertainties do not cause or contribute to excessive ACL overages for vulnerable species. Using recreational ACTs rather than the ACLs to trigger recreational AMs may not eliminate ACL overages completely; however, using such a strategy for the recreational sector may reduce large overages. The ACTs would be used to trigger AMs. Currently there is not an annual catch target for red snapper (**Alternative 1**). The range of ACT alternatives reduces the ACL by 15% to 48.9% (**Table 5**). The method used to specify a recreational ACT for other snapper grouper species uses the percent standard error (PSE) from the Marine Recreational Information Program (MRIP) to account for uncertainty in the landings estimate (**Alternative 2**). **Alternatives 3**, **4,** and **5** reduce the management target to a lesser degree than **Alternative 2** by reducing the ACL by a set percentage to account for a variety of recreational management uncertainties.

Alternative 6 uses a comparison of the ACL to landings to estimate a range of management uncertainty. Red snapper was open for shortened seasons in 2012, 2013, and 2014 and in those years the landings exceeded the ACL each year (**Table 6**). The value for the landings used the estimation from the Marine Recreational Fishery Statistic Survey and Southeast Region Headboat Survey since those estimates were used to determine the ABC and ACL. The ACL was exceeded in the recreational fishery by 41% on average.

The commercial fishery does not typically have an ACT for snapper grouper species since all landings are reported through dealers on a weekly basis and the fishery can be closed within the

season through accountability measures. The commercial fishery exceeded it's ACL in 2013 and 2014 (**Table 11**).

Table 5. The yearly proportional standard error for the Marine Recreational Intercept Program for number of red snapper landed (A + B1) from 2012 to 2015.

Year	MRIP PSE for Landings in Numbers of Fish
2012	45.2
2013	76.2
2014	31.7
2015	42.4
Average	**48.9**

Table 6. Recreational and commercial red snapper ACL, landings, and % exceeding ACL from 2012 to 2014. Landings estimate came from SERO Reports to the Council at June Council Meetings. ACL in 2015 was 0.

	Recreational			Commercial		
Year	ACL	Landings	% Exceeding ACL	ACL	Landings	% Exceeding ACL
2012	9,399	15,059	60%	3,668	1,532	0%
2013	9,585	11,767	23%	3,740	5,123	37%
2014	22,576	31,683	40%	8,810	10,827	23%
Average Exceeding ACL			41%			20%

COMMITTEE ACTION:

OPTION 1. APPROVE INCLUSION OF ACTION 4 IN AMENDMENT 46 AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 4 FOR DETAILED ANALYSIS.
OPTION 2. ADD/MODIFY ALTERNATIVES UNDER ACTION 4 (COMMITTEE TO SPECIFY) AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 4 FOR DETAILED ANALYSIS.
OPTION 3. DO NOT APPROVE INCLUSION OF ACTION 4 IN AMENDMENT 46.
OPTION 4. OTHERS??

Action 5. Revise Optimum Yield (OY) for Red Snapper in the South Atlantic Region

Alternative 1 (No Action). Optimum Yield (OY) = Yield at 98% F_{MSY} (98% $F_{30\%SPR}$)

Alternative 2. OY = Commercial ACL + Recreational ACT

Alternative 3. OY= 75% MSY

Alternative 4. OY= 75%F_{MSY}

Alternative 5. OY= ACL ≤ ABC

Alternative 6. OY is the long-term average catch, which is not designed to exceed the ACL, and will fall between the ABC and ACT.

Discussion:

OY is used to evaluate how effective management has been at achieving the goals and objectives of the FMP. OY is specified in the Magnuson Stevens Act (MSA) as the "*amount of fish that provides the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, while taking into account the protection of marine ecosystems. OY is specified on the basis of ABC, as reduced by relevant economic, social, or ecological factor and the need to address management uncertainty."* The management regime should be designed to get as close as possible to the OY without causing overfishing. OY must be set below MSY.

Since red snapper is in a rebuilding plan, the fishery cannot harvest at OY. Once the stock is rebuilt, the yield can be evaluated to determine if the fishery is achieving OY. If the fishery is not achieving OY, the management strategy will be modified as required by the MSA.

The current OY (**Alternative 1**) is the yield at 98% of FMSY, which is based on a proxy $F_{30\%SPR}$. **Alternative 2** sums the commercial ACL and recreational ACT to determine the OY. For **Alternative 2**, the OY is calculated using the recreational ACT because the recreational fishery might reduce harvest from the ACL to have an increased opportunity to catch fish. **Alternative 3** sets the OY as 75% of MSY and Alternative sets OY as 75% of F_{MSY}. **Alternative 5** sets OY equal to ACL and less than or equal to the ABC depending on which alternative is selected in **Action 3**.

Alternative 6 uses a slightly different approach than **Alternatives 2-4** and uses long-term average catch to determine OY. The long-term average catch should be based on a time period of consistent management and ABC.

COMMITTEE ACTION:

OPTION 1. APPROVE INCLUSION OF ACTION 5 IN AMENDMENT 46 AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 5 FOR DETAILED ANALYSIS.

OPTION 2. ADD/MODIFY ALTERNATIVES UNDER ACTION 5 (COMMITTEE TO SPECIFY) AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 5 FOR DETAILED ANALYSIS.
OPTION 3. DO NOT APPROVE INCLUSION OF ACTION 5 IN AMENDMENT 46.
OPTION 4. OTHERS??

Action 6. Establish Closed Areas to Reduce Red Snapper Bycatch and Mortality

Alternative 1 (No Action). The Council has established areas that protect habitat for red snapper and restricted fishing including Deepwater MPAs, Oculina Experimental Closed Area, and special management zones (SMZs). Additional areas that are under review and could be established during the development of this amendment are the five closed area recommendations for Spawning SMZs in Amendment 36.

Alternative 2. Prohibit commercial and recreational fishing for, harvest, and possession of all species in the snapper grouper fishery management unit (FMU) year-round in an area **based on depth**.

Sub-alternative 2a. greater than or less than XX feet/meters

Sub-alternative 2b. …

Alternative 3. Prohibit all commercial and recreational fishing for, harvest, and possession of all species in the snapper grouper fishery management unit (FMU) year-round in an area **based on red snapper abundance** in fishery-independent surveys.

Sub-alternative 3a. Areas with catches or CPUE higher than xx??

Sub-alternative 3b. …

Alternative 4. Prohibit commercial and recreational fishing for, harvest, and possession of all species in the snapper grouper fishery management unit (FMU) during a time period in an area **based on seasonal and spatial red snapper abundance.** The time period and area of closure are:

Sub-alternative 4a. Areas and seasons with CPUE from fishery independent surveys greater xx…

Sub-alternative 4b. …

Discussion:

Amendment 17A explored using closed areas to end overfishing of red snapper. The alternatives in Amendment 17A for closed areas focused on areas off Georgia's and Florida's coasts, where concentrated landings of red snapper were reported. An example of a closed area was off Georgia and Florida in depths from approximately 100 to 240 feet (**Figure 1**). Prior to the area closure being enacted, SEDAR 24 (2010) was completed and indicated the large closed area was not necessary to end overfishing and rebuild the stock. Regulatory Amendment 10 (SAFMC 2011) removed the requirement for the snapper grouper fishing closed area.

Because the stock is still experiencing overfishing (SEDAR 41), area closures could be reconsidered to end overfishing of red snapper. Closed areas are a management measure that could be used to reduce mortality and bycatch of red snapper in areas where there is a high abundance of red snapper. A map of the probability of encounter of a spawning condition female has been developed for red snapper during peak spawning time (Figure 2). Red snapper peak spawning occurs in water temperatures from 24.7 to 29 C around the time of the new moon.

Red snapper in spawning condition are most commonly found in depths between 79 and 98 feet (24-30 meters).

There are limited data available to describe the areas where and seasons when landings of red snapper occur. Seventy percent of reported red snapper discards from 2010 to 2015 came from the private recreational fishery. Unfortunately, data on date and location are not available for recreational and charter boat harvest and discards of red snapper. Commercial and headboat harvest and discards are reported through logbooks and date and location of harvest can be determined. Since the majority of discards come from the private recreational fishery, analysis of data may be required combine data into large regions and across years to decrease uncertainty in the results. Data from fishery independent studies will likely be used to describe red snapper abundance.

*Note: Multiple areas could be selected for closure if alternatives for **Action 6** are selected. Minimum size criteria for the closed area should be recommended for the development of alternatives.*

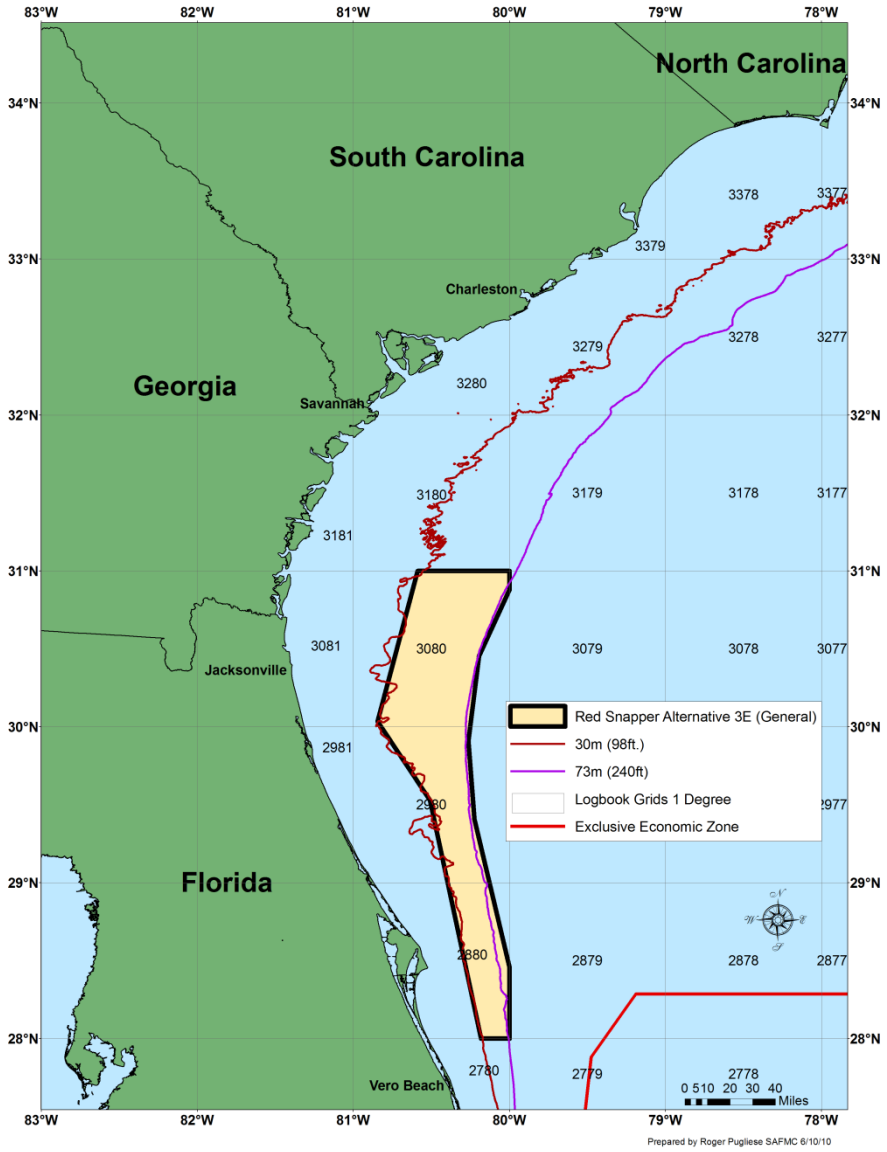

Figure 1. An example of a closed area considered in Amendment 17A.

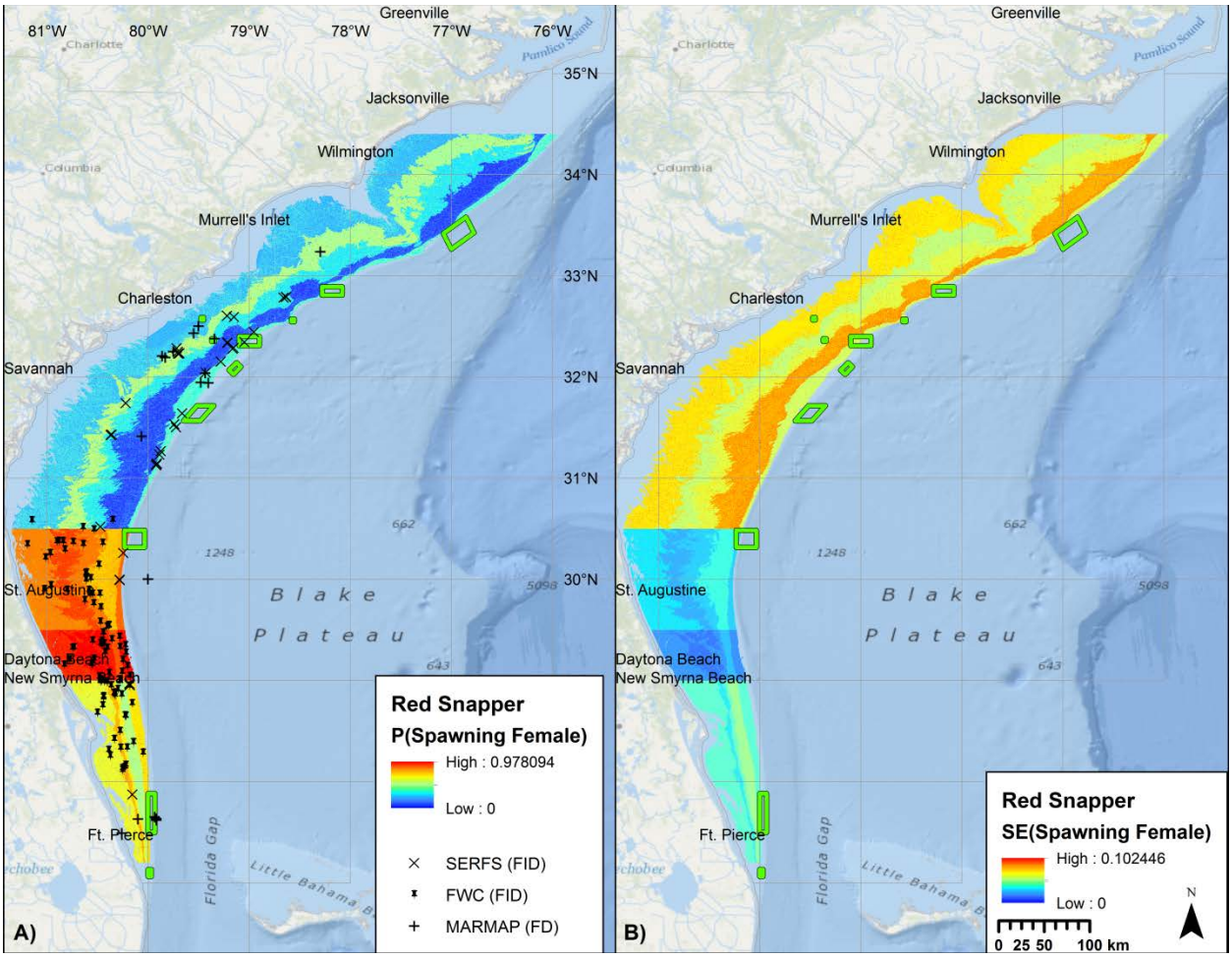

Figure 2. A) Probability of encountering a spawning condition female during peak spawning (June and July) around the time of a new moon and B) the standard error for the estimate. Included on the map are the Deepwater MPAs, Oculina Experimental Closed Area and sample locations of spawning condition females. Source: Farmer et al. (in prep).

COMMITTEE ACTION:

OPTION 1. APPROVE INCLUSION OF ACTION 6 IN AMENDMENT 46 AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 6 FOR DETAILED ANALYSIS.

OPTION 2. ADD/MODIFY ALTERNATIVES UNDER ACTION 6 (COMMITTEE TO SPECIFY) AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 6 FOR DETAILED ANALYSIS.

OPTION 3. DO NOT APPROVE INCLUSION OF ACTION 6 IN AMENDMENT 46.

OPTION 4. OTHERS??

Action 7. Modify or Establish Management Measures for the Commercial Sector to Allow For Restricted Harvest While Ending Overfishing of Red Snapper in the South Atlantic Region.

Note: Multiple alternatives can be selected. A minimum and maximum size limit can be combined to develop a slot limit.

Alternative 1 (No Action). Red snapper may not be harvested, possessed, sold, or purchased in or from the South Atlantic EEZ, except if NMFS determines a limited amount of red snapper may be harvested or possessed in or from the South Atlantic EEZ. During a limited commercial fishing season, the commercial trip limit is 75 lbs gutted weight.

Alternative 2. Prohibit commercial harvest of red snapper in or from the South Atlantic EEZ.

Sub-alternative 2a. months
Sub-alternative 2b. months
Sub-alternative 2c. months
Sub-alternative 2d. year-round.

Alternative 3. Modify the commercial trip limit for federally-permitted vessels.

Sub-alternative 3a. trip limit
Sub-alternative 3b. trip limit
Sub-alternative 3c. trip limit

Note: Trip limit could be specified in number or weight.

Alternative 4. Establish a commercial minimum size limit (total length).

Sub-alternative 4a. size limit
Sub-alternative 4b. size limit
Sub-alternative 4c. size limit

Alternative 5. Establish a commercial maximum size limit (total length).

Sub-alternative 5a. size limit
Sub-alternative 5b. size limit
Sub-alternative 5c. size limit

Alternative 6. Prohibit commercial possession and harvest of red snapper in or from South Atlantic EEZ using spearfishing gear.

Discussion:

The ACLs control the annual amount of removals whereas size limits and bag limits can be used to constrain harvest into a selected season length. Due to the low ABC for red snapper under the rebuilding plan, year-round harvest of red snapper is not likely to be feasible, and the open season must be confined to a short time period. The Council is considering keeping the fishery closed during the spawning months based on stakeholder input gathered during Visioning. The spawning months for red snapper are May through October with a prolonged peak from June through September (White and Palmer 2004, Sedberry et al. 2006). A low trip limit could be specified in number of fish or pounds of fish to avoid targeting of red snapper

during the open season. Minimum and maximum size limit could be designed to protect small fish or the largest spawning fish from harvest. **Alternatives 2-5** could establish a season, size limit, and trip limit separately.

Alternative 6 does not allow harvest of red snapper with spearfishing gear to avoid targeting of red snapper.

COMMITTEE ACTION:
OPTION 1. APPROVE INCLUSION OF ACTION 7 IN AMENDMENT 46 AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 7 FOR DETAILED ANALYSIS.
OPTION 2. ADD/MODIFY ALTERNATIVES UNDER ACTION 7 (COMMITTEE TO SPECIFY) AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 7 FOR DETAILED ANALYSIS.
OPTION 3. DO NOT APPROVE INCLUSION OF ACTION 7 IN AMENDMENT 46.
OPTION 4. OTHERS??

Action 8. Modify or Establish Management Measures for the Recreational Sector to Allow For Restricted Harvest While Ending Overfishing of Red Snapper in the South Atlantic Region.

Note: The target when projecting the harvest for the different Alternatives/Sub-Alternatives will be based on the ACT, if specified. Similar to the commercial regulations a slot limited could be recommended

Alternative 1 (No Action). Red snapper may not be harvested or possessed in or from the South Atlantic EEZ, except if NMFS determines a limited amount of red snapper may be harvested or possessed in or from the South Atlantic EEZ. The recreational bag limit is zero, except during a limited recreational fishing season.

Alternative 2. Allow recreational harvest of red snapper in or from the South Atlantic EEZ until the ACT is met or projected to be met.

Sub-alternative 2a. 1 month
Sub-alternative 2b. Fridays, Saturdays, and Sundays for 1 month
Sub-alternative 2c. 2 months
Sub-alternative 2d. do not allow for recreational harvest.

Alternative 3. Modify the recreational bag limit for red snapper.

Sub-alternative 3a. xx per person
Sub-alternative 3b. xx per vessel

Alternative 4. Establish a recreational minimum size limit (total length).

Sub-alternative 4a. size limit
Sub-alternative 4b. size limit
Sub-alternative 4c. size limit

Alternative 5. Establish a recreational maximum size limit (total length).

Sub-alternative 5a. size limit
Sub-alternative 5b. size limit
Sub-alternative 5c. size limit

Alternative 6. Establish an allowable snapper grouper fishing area for recreational fisheries that would remain year-round. Retention of red snapper in any area would be prohibited outside of the open season and fishing for snapper grouper would be allowed seasonally outside the year round fishing area. The snapper grouper fishing area is defined by depth.

Sub-alternative 6a. Establish an allowable snapper grouper fishing area in waters less than **150 feet** to remain open to snapper grouper fishing year-round.
Sub-alternative 6b. Establish an allowable snapper grouper fishing area in waters less than **100 feet** to remain open to snapper grouper fishing year-round.
Sub-alternative 6c. Establish an allowable snapper grouper fishing area in waters less than **90 feet** to remain open to snapper grouper fishing year-round.
Sub-alternative 6d. Establish an allowable snapper grouper fishing area in waters less than **75 feet** to remain open to snapper grouper fishing year-round.

Sub-alternative 6e. Establish an allowable snapper grouper fishing area in waters less than **60 feet** to remain open to snapper grouper fishing year-round.

Alternative 7. Establish a snapper grouper fishing season for areas outside the allowable snapper grouper fishing area.

Sub-alternative 7a. The snapper grouper fishing season is xx.

Sub-alternative 7b. The snapper grouper fishing season is xx.

Alternative 8. Prohibit recreational fishing for, harvest, and possession of all species in the snapper grouper fishery management unit (FMU) year-round in an area **based on red snapper discards.**

Alternative 9. Prohibit recreational fishing for, harvest, and possession of all species in the snapper grouper fishery management unit (FMU) year-round in an area **based on red snapper abundance** in fishery-independent surveys.

*Note: Multiple areas could be recommended for closure if alternatives for **Alternatives 8 and 9** are selected. Minimum size criteria for the closed area should be recommended for the development of alternatives.*

Discussion:

The ACLs control the amount of annual removals whereas size limits and bag limits can be used to constrain harvest into a selected season length. Due to the low ABC for red snapper under the rebuilding plan, year-round harvest of red snapper is not likely to be allowed but must be confined to a short time period. **Alternatives 2-5** develops alternatives to allow for a short red snapper season, set size limits, and bag limits.

Limited red snapper seasons occurred in 2012, 2013, and 2014 based on previous year's ABCs not being exceeded. However, in 2015 and 2016 the previous year's ABC was exceeded and no season was allowed. Dead discards were higher than the ABC and management actions are needed to reduce the number of dead discards to enable a season to open. In 2017, emergency action was taken to allow for a mini season.

The proposed allowable snapper grouper fishing area is designed to allow snapper grouper fishing all year while allowing a short window of access to fish in deeper water because many species in the snapper grouper fishery management unit suffer from barotrauma when released. **Alternative 6** would define a snapper grouper fishing area designed to reduce the number of red snapper discards and the mortality of discards by concentrating the fishery in shallower waters where discard mortality is lower. **Alternative 7** would define the time period for recreational snapper grouper fishing in the snapper grouper fishing area.

Alternatives 8 and **9** would close specified areas to recreational fishing.

COMMITTEE ACTION:

OPTION 1. APPROVE INCLUSION OF ACTION 8 IN AMENDMENT 46 AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 8 FOR DETAILED ANALYSIS.

OPTION 2. ADD/MODIFY ALTERNATIVES UNDER ACTION 8 (COMMITTEE TO SPECIFY) AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 8 FOR DETAILED ANALYSIS.
OPTION 3. DO NOT APPROVE INCLUSION OF ACTION 8 IN AMENDMENT 46.
OPTION 4. OTHERS??

Action 9. Establish a Private Recreational Snapper Grouper Permit or Tag Program for Recreational Fishermen to Fish For, Harvest, or Possess Red Snapper in the South Atlantic Region.

Alternative 1 (No Action). Recreational snapper grouper fishing from private recreational vessels in Federal Waters is an open access fishery with no federal requirement for a recreational permit or fish tag.

Alternative 2. Require a federal recreational permit in the South Atlantic Region (federal waters only) for recreational fishermen to fish for, harvest, or possess:

Sub-alternative 2a. red snapper.
Sub-alternative 2b. snapper grouper species associated with red snapper habitat.
Sub-alternative 2c. all species in the snapper grouper fishery management unit.
Sub-alternative 2d. species included in the deepwater complex.

Alternative 3. Establish conditions to renew or maintain a valid permit.

Sub-alternative 3a. A permit is only valid if a completed logbook is filed for the previous time block (**Action 10**) including no fishing reports.
Sub-alternative 3b. A permit cannot be renewed until all logbook reports for the previous year have been filed.

Alternative 4. Require a harvest tag for recreational fishermen to fish for, harvest, or possess red snapper federal waters.
*Note: **Alternative 4** will require additional sub-alternatives to define the program such as tag distribution, reporting, transfers, costs, etc.*

Discussion:

A private recreational snapper grouper permit would not be required for fishermen fishing on headboats or charter boats. Headboats already have reporting requirements to report number of anglers through the Joint South Atlantic/Gulf of Mexico Generic Charter/Headboat Reporting in the South Atlantic Amendment (2013) and there is a charter boat amendment under review, which is considering requiring electronic reporting for the charter boat sector (South Atlantic For-Hire Amendment).

The permit (**Alternative 2**) would be used to improve estimates of fishing effort for trips that target species in the snapper grouper fishery management unit and match the Visioning Blue 2016-2020 where stakeholders requested a recreational stamp (or permit). Less than 10% of the fishing trips occurring in the South Atlantic region fish in federal waters based on Marine Recreational Intercept Program (MRIP) data. Trips in federal waters include trips targeting cobia, dolphin, king mackerel, Spanish mackerel, and tuna as well as snapper grouper species. In order to improve estimates of snapper grouper fishing without substantially increasing sampling effort in MRIP, a permit could be required. The average number of intercepts from 2013 to 2015 for private fishing trips reporting catching or discarding a species managed by the Council was

3,466 trips (**Table 7**). Over 2,000 of the intercepted trips reported catching or releasing species in the snapper grouper fishery management unit. The vast majority of intercepted trips catching or releasing species in the snapper grouper fishery management unit reported black sea bass, gray snapper, or white grunt. The number of intercepted trips reporting catching or releasing red snapper was less than 10 fish per year for trips originating in North Carolina, South Carolina, or Georgia. An average 110 intercepted trips originating from Florida reported catching or releasing red snapper off Florida. Given the low number of red snapper intercepts, managing red snapper on a spatial or temporal scale based on recreational landings or discards will have significant uncertainty. Low number of intercepts is likely for many species in the snapper grouper complex and a permit for the fishery management unit will enhance fishing effort estimates for all snapper grouper species. The Mid-Atlantic Fishery Management Council faced a similar situation with the private recreational landings estimate for blueline tilefish. They are proposing to implement a permit similar to the HMS system for golden and blueline tilefish in the Blueline Tilefish Amendment to the Tilefish Fishery Management Plan.

During the Vision process for the Snapper Grouper Fishery Management Plan, stakeholders suggested state by state or regional quotas. However the resolution of the private recreational landings data may be too imprecise to enable analyses at a scale smaller than a South Atlantic region. Establishing a permit could help to improve effort and landings estimate for the private recreational fishery therefore enabling state by state or regional management.

Table 7. Number of private recreational trips intercepted by Marine Recreational Information Program by state from 2013 to 2015.

Total Number of Trips Intercepted by MRIP Survey					
State	Year	Red Snapper	Snapper Grouper	SAFMC Species	All Species
		Private	Private	Private	Private
NC	2013	1	763	1,110	4,396
	2014	4	508	771	3,188
	2015	3	581	982	3,328
SC	2013	1	143	161	995
	2014	8	288	324	1,337
	2015	1	266	305	1,391
GA	2013	5	75	78	490
	2014	10	85	87	746
	2015	1	62	70	694
FL	2013	51	1,208	1,507	3,568
	2014	161	2,052	2,538	5,471
	2015	117	1,873	2,464	5,436
South Atlantic	2013	58	2,189	2,856	9,449
	2014	183	2,933	3,720	10,742
	2015	122	2,782	3,821	10,849

The tag (**Alternative 4**) would be used to report recreational landings of selected species. Reporting harvest through a tag program will enable the collection of effort data and landings data. The Mid-Atlantic Fishery Management Council noted that a catch card with a tag requirement improved reporting for Highly Migratory Species (MAFMC 2016).

Questions from IPT to consider in development of a permit

1) Is this a fisher permit or a vessel permit? Currently, only the dealer permit and operator cards are by person; the rest are vessel permits. Many of the aspects of the permit will be linked to reporting requirements and will need to be considered when developing a permit (Action 10 in the amendment).

- For instance, we need to know what kind of data will be collected from the permit application. Name and address of every recreational angler fishing for red snapper? If so, that means we need a permit that is issued *per person.* An individual permit will give us a count of effort, and could be used to collect various socio-economic data about these fishers. However, we lose linkage to the vessel and cannot threaten to deny permit renewal for vessel non-compliance (below).

- Do we want to collect information for every vessel that goes fishing, including vessel number, owner name and address? Vessel permits will give us a better linkage to vessel logbooks/reports (if required), but we won't know how many total fishers are out there and who they are.

2) What type of data will be reported by the permit holder (who, where fishing, demographic information, etc.)?

3) What will the permit requirement be (fish for or possess, similar to charter/headboat requirements)?

- For example, the charter/headboat requirement is as follows: For a person aboard a vessel that is operating as a charter vessel or headboat to fish for or possess, in or from the EEZ, South Atlantic snapper-grouper, a valid charter vessel/headboat permit for South Atlantic snapper-grouper must have been issued to the vessel and must be on board.

4) Is the permit required to fish for and possess red snapper or all snapper grouper species?

5) If just for fishing for or possessing red snapper, would the permit be required for all the South Atlantic or a specific region(s)? Would the permit be required for fishing the entire fishing year or only during specific times?

6) Would this permit be for private angling with all approved fishing gear types for rec red snapper?

7) Who will be responsible for logistics, NOAA or states?

8) Will the permit be limited access (limit on the number of permits)?

9) If there is limited access, is the permit transferable?

10) What is the renewal period for the permit? Typically, permits must be renewed within 1 year, by the birthdate of the permit holder.

11) What are the permit renewal requirements? Such as reporting or landings information from the previous year needed for renewal.

12) Would there be any unique permit display requirements? (A regular vessel permit is currently an 8.5x11 piece of paper.)

Issues to consider

The permit office will need a substantial increase in staff to process the potential number of permits. There could be administrative costs to IT and SEFSC also.

There will be a delay (estimated to be between 30-60 days) between when someone applies for a permit and when they receive the permit.

Making this permit obtainable via online will greatly reduce administrative costs to the agency.

Can information be collected through the state license without creating a new permit?

NMFS will charge a cost that will cover the administrative costs of the permit.

COMMITTEE ACTION:
OPTION 1. APPROVE INCLUSION OF ACTION 9 IN AMENDMENT 46 AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 9 FOR DETAILED ANALYSIS.
OPTION 2. ADD/MODIFY ALTERNATIVES UNDER ACTION 9 (COMMITTEE TO SPECIFY) AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 9 FOR DETAILED ANALYSIS.
OPTION 3. DO NOT APPROVE INCLUSION OF ACTION 9 IN AMENDMENT 46.
OPTION 4. OTHERS??

Action 10. Modify Reporting Requirements for Private Recreational Fishermen.

Alternative 1 (No Action). There is no reporting requirement for recreational anglers although the Council approved an action which would require owner or operator to complete fishing records if selected by the Science and Research Director (SAFMC 2008).

Alternative 2. Require private recreational anglers to complete electronic logbooks. This would require all fishermen with a recreational snapper grouper permit **to report all catch and discards electronically** when fishing for or catching species listed in the **Action 9**.

Sub-alternative 2a. 5% of private recreational anglers would be randomly selected each year to electronically report their catch.

Sub-alternative 2b. **20%** of private recreational anglers would be randomly selected each year to electronically report their catch.

Sub-alternative 2c. 25% of private recreational anglers would be randomly selected each year to electronically report their catch.

Sub-alternative 2d. 50% of private recreational anglers would be randomly selected each year to electronically report their catch.

Sub-alternative 2e. All private recreational anglers would be randomly selected each year to electronically report their catch.

Note: Species listed will come from the preferred list of species in Action 9.

Alternative 3. Require that private recreational fishermen with a snapper grouper permit submit fishing records for each trip to report:

Sub-alternative 3a. To the SRD **monthly**, or at intervals shorter than a **month** if notified by the SRD, via electronic reporting (via NMFS approved hardware/ software). Electronic reports would be due by seven days following the last day of the month.

Sub-alternative 3b. To the SRD **weekly**, or at intervals shorter than a **week** if notified by the SRD, via electronic reporting (via NMFS approved hardware/ software). Electronic reports would be due by Tuesday following the week that ends on Sunday.

Sub-alternative 3c. To the SRD via electronic reporting (via NMFS approved hardware/ software). **Electronic reports would be required to be completed prior to disembarking from the fishing vessel.**

Alternative 4. Require private recreational anglers with a recreational snapper grouper permit to **complete logbooks for trips** when fishing for or catching species listed in the **Action 9 (Permit or Tag)**.

Sub-alternative 4a. Require that private recreational fishermen with a snapper grouper stamp submit fishing records for trips catching or discarding red snapper to the SRD **monthly**, or at intervals shorter than a **month** if notified by the SRD, via NMFS approved reporting sheet. Reports would be required to be post marked seven days following the last day of the month.

Sub-alternative 4b. Require that private recreational fishermen with a snapper grouper stamp submit fishing records for trips catching or discarding red snapper to the SRD **weekly**, or at intervals shorter than a **week** if notified by the SRD, via NMFS approved reporting

sheet. Reports would be required to be post marked by Tuesday following the week that ends on Sunday.

Sub-alternative 4c. Require that private recreational fishermen with a snapper grouper stamp submit fishing records for trips catching or discarding red snapper to the SRD via NMFS approved reporting sheet. **Reports would be required to be completed prior to disembarking from the fishing vessel.**

Note: Species listed will come from the preferred list of species in Action 9.

Alternative 5. Require reporting to the NMFS or state agency prior to returning to shore of incidental red snapper catch. Fishermen would be required to inform of location and approximate time of returning to port.

Alternative 6. Require recreational fishermen to hail out via phone or electronic device if targeting species in the snapper grouper fishery management unit. The fishermen would be provided a number issued to the phone or electronic device.

Discussion:

Reporting requirements for headboats developed in the Joint South Atlantic/Gulf of Mexico Generic Charter/Headboat Reporting in the South Atlantic Amendment (2013) require headboats to report each trip electronically. A similar amendment is under development for charter boats which is considering requiring electronic reporting for charter boats (South Atlantic For-Hire Amendment).

The current language for private recreational vessel reporting requirements was developed in Amendment 15A (SAFMC 2008). Although the language was approved by the Council, it has not been approved by the Office of Management and Budget and not effective until done so. The language states "the owner or operator of a vessel that fishes for or lands South Atlantic snapper grouper in or from the South Atlantic EEZ who is selected to report by the Science and Research Director (SRD) must--

(1) Maintain a fishing record for each trip, or a portion of such trips as specified by the SRD, on forms provided by the SRD. Completed fishing records must be submitted to the SRD monthly and must either be made available to an authorized statistical reporting agent or be postmarked not later than 7 days after the end of each month. Information to be reported is indicated on the form and its accompanying instructions.

(2) Participate in the NMFS-sponsored electronic logbook and/or video monitoring reporting program as directed by the SRD."

It is not known if or when this language would be approved by the Office of Management and Budget.

Alternative 2 specifies a percentage of the fishery to participate in the reporting. It is estimated that less than 1% of the trips are intercepted through MRIP. Therefore the intercept of a single fish through MRIP will be expanded by a significant amount to account for the trips that are not intercepted. Self-reported logbooks could be used to increase the sample size of numbers of trips reporting. The Mid-Atlantic Fishery Management Council is proposing to require 100%

reporting for blueline and golden tilefish since they are rare event species. Many species in the snapper grouper fishery management complex could be considered rare event species including red snapper (**Table 8**). Requiring reporting of landings could help to improve the accuracy and precision of the private recreational landings.

Alternative 3 specifies the reporting timeframe for fishermen with a private recreational snapper grouper permit. The fishermen could report on a monthly, weekly, or per trip basis. In the Mid-Atlantic Fishery Management Council's Blueline Tilefish Amendment, it is proposed to require recreational fishermen report their landings via an electronic reporting application prior to removing tilefish from the vessel or removing the vessel from the water.

Alternative 4 would allow fishermen to complete either paper or electronic logbooks whereas **Alternative 2** would only allow electronic logbooks be available for use.

Alternative 5 would require fishermen to report an incidental catch of red snapper. This would increase the number of trips reporting red snapper and potential assist in determining where areas of high red snapper bycatch occur.

Alternative 6 would require fishermen to hail out if they are going to target species in the snapper grouper fishery management unit and a permit would be sent to an electronic device for the trip. A similar system is used by Mississippi Department of Natural Resources to track red snapper landings. In addition to the hail-out requirement, the Mississippi DNR requires fishermen to hail-in with information on catch. The fishermen would not be able to hail out again until a hail-in is completed for the previous trip. Currently Mississippi program only requires reporting of red snapper but it could be modified to include additional species. There are approximately 2,000 anglers using the application. Some of the fishermen request being able to report through other means and are accommodated by the DNR through a phone-in system.

Table 8. Number of private vessel trips catching red snapper (landings and discards) and number of red snapper observed (A) or reported (B1 and B2) through MRIP intercepts for private recreational vessels, 2011-2015.

Number of Trips Intercepted Reporting Red Snapper and Numbers of Red Snapper Intercepted Through MRIP					
Year	Private				
	Trips	AB1	A	B1	B2
2011	21	0	0	0	72
2012	48	8	8	0	182
2013	58	12	12	0	129
2014	183	138	111	27	629
2015	122	1	0	1	588

COMMITTEE ACTION:

OPTION 1. APPROVE INCLUSION OF ACTION 10 IN AMENDMENT 46 AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 10 FOR DETAILED ANALYSIS.
OPTION 2. ADD/MODIFY ALTERNATIVES UNDER ACTION 10 (COMMITTEE TO SPECIFY) AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 10 FOR DETAILED ANALYSIS.
OPTION 3. DO NOT APPROVE INCLUSION OF ACTION 10 IN AMENDMENT 46.
OPTION 4. OTHERS??

Action 11. Require Use of Best Fishing Practices When Fishing for Snapper Grouper Species With Hook-and-Line Gear to Reduce Mortality and Bycatch of Red Snapper.

Alternative 1 (No Action). Fishermen are required to use non-stainless steel circle hooks when fishing for snapper grouper species with hook and line gear north of 28 degrees. It is unlawful to possess snapper grouper species without possessing non-offset, non-stainless steel circle hooks. The regulation for the use of circle hooks applies to the use of natural baits only. Additionally fishermen are required to have dehooking devices onboard.

Alternative 2. Require descending device and/or venting be onboard a vessel possessing species in the snapper grouper fishery management unit to increase survivorship of released red snapper.

Sub-alternative 2a. Require **venting tool** to be onboard a **recreational** vessel possessing species in the snapper grouper fishery management unit to increase survivorship of released fish.

Sub-alternative 2b. Require **venting** tool to be onboard a **commercial** vessel possessing species in the snapper grouper management unit to increase survivorship of released fish.

Sub-alternative 2c. Require **descending device** to be onboard a **recreational** vessel possessing species in the snapper grouper management unit to increase survivorship of released fish.

Sub-alternative 2d. Require **descending device** to be onboard a **commercial** vessel possessing species in the snapper grouper management unit to increase survivorship of released fish.

Alternative 3. Require use of single hook rigs in the recreational snapper grouper fishery to reduce number of red snapper caught.

Alternative 4. Modify requirement for the use of non-stainless steel circle hooks when fishing for snapper grouper species with hook and line gear north of 28 degrees (approximately 25 miles south of Cape Canaveral, FL). The circle hook requirement applies only to natural baits.

Sub-alternative 4a. Require the use of **non-offset, non-stainless steel hooks** when fishing for snapper grouper species with hook-and-line gear. Apply to the use of natural baits only.

Sub-alternative 4b. Require the use of **non-offset, non-stainless steel circle hooks** when fishing for snapper grouper species with hook and line gear **north of 28 degrees**. It is unlawful to possess snapper grouper species without possessing non-offset, non-stainless steel circle hooks. Apply to the use of natural baits only.

Sub-alternative 4c. Require the use of **non-offset, non-stainless steel circle hooks** when fishing for snapper grouper species with hook and line gear in **depths greater than xx**. It is unlawful to possess snapper grouper species without possessing non-offset, non-stainless steel circle hooks. Apply to the use of natural baits only.

Sub-alternative 4d. Require the use of **non-offset, non-stainless steel circle hooks** when fishing for snapper grouper species with hook and line gear in the **South Atlantic**

EEZ. It is unlawful to possess snapper grouper species without possessing non-offset, non-stainless steel circle hooks. Apply to the use of natural baits only.
Sub-alternative 4e. **Remove** the requirement for use of circle hooks when fishing for snapper grouper species with hook and line gear in the **South Atlantic EEZ.**

Discussion:
Best fishing practices can be effective in reducing mortality and bycatch by planning ahead and avoiding areas where bycatch is likely, avoiding non-target size or species through fishing techniques or gear, using appropriate gear to minimize impacts of capture, releasing the fish with minimal time out of the water and handling. Common examples of best fishing include recompressing fish, reducing the number of hooks fished, avoiding areas where bycatch is likely, avoiding "high grading", using to hooks that reduce or minimize gut hooking or foul-hooking, using knotless landing nets, etc. Several groups have developed recommendations for best fishing practices and information on best fishing practices can be found at FishSmart.org, Florida Sea Grant, North Carolina Division of Marine Fisheries, and NOAA.

COMMITTEE ACTION:
OPTION 1. APPROVE INCLUSION OF ACTION 11 IN AMENDMENT 46 AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 11 FOR DETAILED ANALYSIS.
OPTION 2. ADD/MODIFY ALTERNATIVES UNDER ACTION 11 (COMMITTEE TO SPECIFY) AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 11 FOR DETAILED ANALYSIS.
OPTION 3. DO NOT APPROVE INCLUSION OF ACTION 11 IN AMENDMENT 46.
OPTION 4. OTHERS??

Action 12. Revise Accountability Measures and Establish Adaptive Management for Red Snapper in the South Atlantic Region

Alternative 1 (No Action). Current accountability measures were developed for commercial and recreational fisheries in Amendment 28.

Alternative 2. If commercial landings reach or are projected to reach the commercial annual catch limit (ACL), NMFS would close the commercial sector for the remainder of the fishing year. On and after the effective date of such a notification, all sale or purchase is prohibited and harvest or possession of red snapper in or from the EEZ would be limited to the recreational bag and possession limit. This bag and possession limit applies in the South Atlantic on board a vessel for which a valid Federal commercial or charter vessel/headboat permit for South Atlantic snapper grouper has been issued, without regard to where such species were harvested, i.e., in state or Federal waters. Additionally, if the commercial ACL is exceeded, NMFS would reduce the commercial ACL in the following fishing year by the amount of the commercial overage, only if red snapper is overfished and:

Sub-alternative 2a. the **total ABC** including landings and dead discards from recreational and commercial sectors is exceeded.

Sub-alternative 2b. the **total ACL** (landings only) from recreational and commercial sectors is exceeded.

Alternative 3. If recreational landings reach or are projected to reach:

Sub-alternative 3a. The recreational **ACL**, NMFS would close the recreational sector for the remainder of the fishing year, unless, using the best scientific information available, NMFS determines that a closure is unnecessary.

Sub-alternative 3b. The recreational **ACT**, NMFS would close the recreational sector for the remainder of the fishing year, unless, using the best scientific information available, NMFS determines that a closure is unnecessary.

Alternative 4. If recreational landings exceed the recreational ACL, then during the following fishing year, recreational landings will be monitored for persistence in increased landings. The length of the recreational season and recreational ACL will not be reduced if NMFS determines, using the best scientific information available, that a reduction is unnecessary. If necessary:

Sub-alternative 4a. NMFS would reduce the length of fishing season and the recreational ACL in the following fishing year by the amount of the recreational overage, only if the species is overfished and the **total ABC including landings and dead discards from recreational and commercial sectors** is exceeded.

Sub-alternative 4b. NMFS would reduce **the length of fishing season** and the recreational ACL in the following fishing year by the amount of the recreational overage, only if the species is overfished and the **total ACL (commercial ACL and recreational ACL)** is exceeded.

Note: ABCs are not listed in codified text therefore establishing AMs cannot be based on ABC.

Alternative 5. If total ABC (landings and discards) is exceeded, the stock is overfished, and one sector or component (e.g. commercial, private recreational, or for-hire) exceeds xx% of the discards, adjust management measures for the sector with highest discards.

Sub-alternative 5a. If ABC (landings and discards) is exceeded, the stock is overfished, and one sector (e.g. commercial, private recreational, or for-hire) exceeds xx% of the discards, **reduce the following season's length** for the sector to account for the overage.

Sub-alternative 5b. If ABC (landings and discards) is exceeded, the stock is overfished, and one sector (e.g. commercial, private recreational, or for-hire) exceeds xx% of the discards, **reduce snapper grouper allowable fishing area** by a defined amount for the sector to reduce discards.

Sub-alternative 5c. If ABC (landings and discards) is exceeded, the stock is overfished, and one sector (e.g. commercial, private recreational, or for-hire) exceeds xx% of the discards, **closed defined areas** for the sector to reduce discards.

Note: The % of the discards would need to have sub-alternatives if this alternative is considered for detailed analysis. Additionally the area reductions or closed areas would need to be defined to enable analysis.

ABCs are not listed in codified text therefore establishing AMs cannot be based on ABC. Changing areas will take more time to complete than changing a season. Area options should be developed for corresponding overages in ABC or ACL.

Alternative 6. If the total red snapper ABC is not exceeded, landings do not exceed total ACL, and sector or component landings are below xx% of the ACL, modify management measures for sectors below ACL by xx% to increase harvest.

Sub-alternative 6a. Decrease the minimum size limit for red snapper to the next full inch the following year if the sector or component season is not projected to close.

Sub-alternative 6b. Increase the bag or trip limit for red snapper by one fish the following year if the sector season or component is not projected to close.

Sub-alternative 6c. Increase the length of the open season in deeper water by one week the following year if the sector season or component is not expected to close.

Sub-alternative 6d. Increase the length of the open season for red snapper by one week the following year if the sector season or component is not expected to close.

Note: Need to specify if the minimum size limit or trip/bag limit would revert the following year.

Discussion:

Accountability measures are designed to adjust management measures to prevent exceeding the ACL. The accountability measure can be designed to limit harvest within season and/or limit harvest the following season. The commercial fishery typically has in season closure due to the more frequent harvest reports and limited number of commercial permits as well as a post-season accountability measure if the stock is overfished.

The recreational fishery typically has post season accountability measures due to the lag in the reporting of the recreational harvest through MRIP. If management measures were not effective in controlling harvest in a given year/season, then the accountability measure could limit harvest the following year/season.

The current accountability measures for red snapper were developed in Amendment 28 (SAFMC 2013). The AMs are as follows:

(1) Track catch per unit effort (CPUE) of red snapper via a fishery-independent monitoring program to track changes in biomass and take action to end overfishing if assessment indicates progress is not being made.

(2) Track the biomass and CPUE through fishery-dependent sampling.

(3) CPUE would be evaluated every three years and adjustments would be made by the framework action.

(4) During the closed seasons, the recreational and commercial ACLs for landings are zero.

The AMs for both sectors listed in federal regulations are:

(1) *Commercial sector.* The commercial ACL for red snapper is zero. However, if NMFS determines that the previous year's estimated red snapper landings and dead discards are less than the ABC, limited red snapper harvest and possession may be allowed for the current fishing year and the commercial ACL value would be determined using the formula described in the FMP. The Assistant Administrator (AA) will file a notification with the Office of the Federal Register to announce the limited commercial ACL for the current fishing year. NMFS will monitor commercial landings during the limited season, and if commercial landings, as estimated by the SRD, reach or are projected to reach the commercial ACL, based on the formula described in the FMP, the AA will file a notification with the Office of the Federal Register to close the commercial sector for red snapper for the remainder of the year. On and after the effective date of the closure notification, all sale or purchase of red snapper is prohibited and harvest or possession of red snapper is limited to the bag and possession limits. This bag and possession limit and the prohibition on sale/purchase apply in the South Atlantic on board a vessel for which a valid Federal commercial or charter vessel/headboat permit for South Atlantic snapper-grouper has been issued, without regard to where such species were harvested or possessed, *i.e.*, in state or Federal waters.

(2) *Recreational sector.* The recreational ACL for red snapper is zero. However, if NMFS determines that the previous year's estimated red snapper landings and dead discards are less than the ABC, limited red snapper harvest and possession may be allowed for the current fishing year and the recreational ACL value would be determined using the formula described in the FMP. The AA will file a notification with the Office of the Federal Register to announce the limited recreational ACL and the length of the recreational fishing season for the current fishing year. The length of the recreational fishing season for red snapper serves as the in-season accountability measure. See § 622.183(b)(5) for details on the recreational fishing season. On and after the effective date of the recreational closure notification, the bag and possession limits for red snapper are zero.

Management since 2011 has been effective in controlling landings below the landings ABC; however, it has not been effective in limiting the number of dead discards, which resulted in the total red snapper ABC being exceeded in 2014 and 2015. Since 2000, the majority of red snapper discards came from the private recreational fishery with the exception of 2011 when the commercial sector accounted the greatest proportion of the discards of red snapper (34.9%, **Table 9**).

Table 9. Percent discards (number of red snapper) for commercial, headboat, charter boat, and private recreational fishery and the total number of discards.

Year	Commercial	Headboat	Charter Boat	Private Rec	Total Discards
2000	5.4%	0.6%	6.2%	87.8%	267,143
2001	6.8%	1.0%	7.4%	84.8%	223,500
2002	18.7%	1.5%	8.6%	71.2%	159,331
2003	4.9%	0.6%	8.6%	85.9%	170,403
2004	1.1%	3.3%	10.6%	85.0%	220,853
2005	11.0%	4.3%	31.9%	52.8%	92,908
2006	3.4%	4.9%	14.3%	77.4%	141,785
2007	3.7%	8.1%	19.1%	69.1%	373,940
2008	2.1%	4.9%	4.7%	88.2%	598,146
2009	4.6%	7.7%	8.0%	79.6%	312,309
2010	9.0%	8.5%	9.8%	72.7%	194,359
2011	34.9%	17.0%	18.1%	30.0%	114,982
2012	9.2%	7.8%	9.1%	73.9%	208,957
2013	12.9%	11.9%	6.6%	68.6%	150,034
2014	7.5%	4.1%	11.1%	77.2%	359,582
2015	5.4%	5.4%	17.5%	71.7%	559,955

COMMITTEE ACTION:

OPTION 1. APPROVE INCLUSION OF ACTION 12 IN AMENDMENT 46 AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 12 FOR DETAILED ANALYSIS.

OPTION 2. ADD/MODIFY ALTERNATIVES UNDER ACTION 12 (COMMITTEE TO SPECIFY) AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 12 FOR DETAILED ANALYSIS.

OPTION 3. DO NOT APPROVE INCLUSION OF ACTION 12 IN AMENDMENT 46.

OPTION 4. OTHERS??

Action 13. Adjust Powerhead Prohibitions in the South Atlantic Region

Alternative 1 (No Action). A powerhead may not be used in the EEZ off South Carolina to harvest South Atlantic snapper-grouper. The possession of a mutilated South Atlantic snapper-grouper in or from the EEZ off South Carolina, and a powerhead is prima facie evidence that such fish was harvested by a powerhead.

Alternative 2. Allow use of powerhead gear in the EEZ off South Carolina to harvest South Atlantic snapper-grouper.

Alternative 3. A powerhead may not be used in the EEZ of the South Atlantic Region to harvest South Atlantic snapper-grouper.

Discussion:
Fishermen are allowed to use powerheads to harvest snapper-grouper species in South Atlantic EEZ in all waters except off South Carolina (**Figure 3**). To have equitable access for fishermen in all states, the powerhead prohibition can be modified to allow the use of powerheads off South Carolina or prohibit their use in the South Atlantic EEZ.

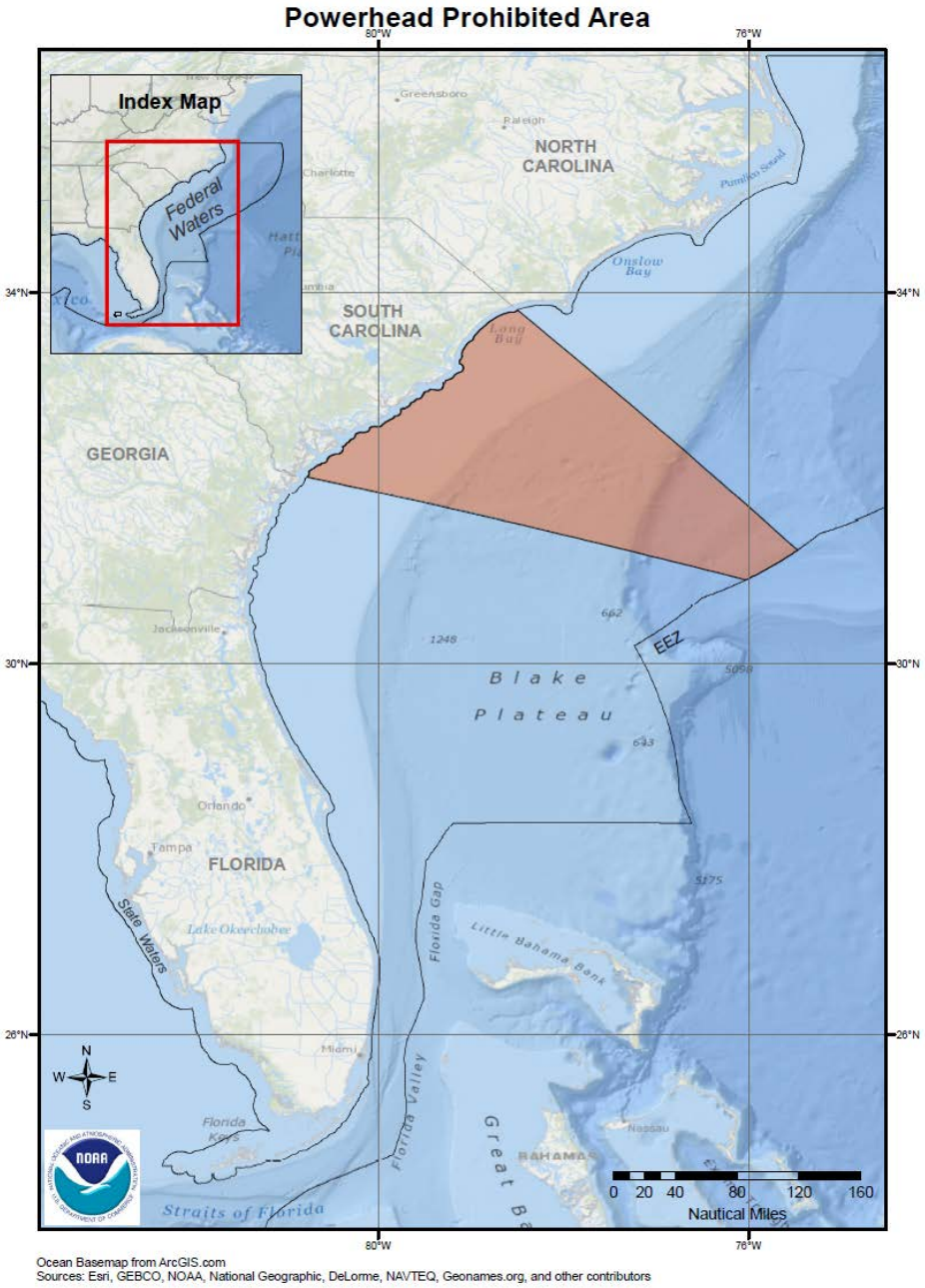

Figure 3. Map of the powerhead prohibited area. Source: SERO GIS website.

COMMITTEE ACTION:

OPTION 1. APPROVE INCLUSION OF ACTION 13 IN AMENDMENT 46 AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 13 FOR DETAILED ANALYSIS.

OPTION 2. ADD/MODIFY ALTERNATIVES UNDER ACTION 13 (COMMITTEE TO SPECIFY) AND APPROVE THE RANGE OF ALTERNATIVES UNDER ACTION 13 FOR DETAILED ANALYSIS.

OPTION 3. DO NOT APPROVE INCLUSION OF ACTION 13 IN AMENDMENT 46.

OPTION 4. OTHERS??