PUBLIC HEARING SUMMARY

for

Snapper Grouper Amendment 32

Actions to End Overfishing and Rebuild the Blueline Tilefish Stock in the South Atlantic

(August 2014)

This document is intended to serve as a SUMMARY for the actions and alternatives in Amendment 32. It also provides background information and includes a summary of the expected biological, social, and economic effects from the proposed management measures.

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Comments are being accepted until 5 p.m., August 18, 2014

Background

What Actions Are Being Proposed?

Amendment 32 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper FMP) proposes measures to immediately end overfishing of the blueline tilefish stock in the South Atlantic through a revision of annual catch limits (ACL), management reference points, accountability measures (AM), and management measures that include commercial trip limits and modifications to recreational bag limits. The most recent stock assessment is the basis for the changes.

The South Atlantic Fishery Management Council (Council) is proposing implementation or revision of the following items through this amendment:

1) **Composition of the Deepwater Complex**
2) **Maximum sustainable yield (MSY)**
3) **ACLs and optimum yield (OY)**
4) **Recreational annual catch target (ACT)**
5) **Commercial accountability measures (AM)**
6) **Recreational AMs**
7) **Commercial management measures**
8) **Recreational management measures**

Purpose for Action

Reduce the current level of fishing mortality of the blueline tilefish stock in the South Atlantic. Revise the annual catch limits and targets for the Deepwater Complex to respond to changes in the acceptable biological catch of silk snapper and yellowedge grouper.

Need for Action

End overfishing and rebuild the blueline tilefish stock, while minimizing, to the extent practicable, adverse social and economic effects. Specify annual catch limits and targets based upon the best available information.

Who is Proposing the Actions?

The Council is proposing the actions. The Council recommends management measures to the National Marine Fisheries Service (NMFS) who ultimately approves, disapproves, or partially approves, and implements the actions through the development of regulations on behalf of the Secretary of Commerce. NMFS is an agency in the National Oceanic and Atmospheric Administration within the Department of Commerce.

Why are the South Atlantic Council and NMFS Considering Action?

The health of the blueline tilefish stock in the South Atlantic was assessed in 2013. The results of the assessment indicated that the blueline tilefish stock in the South Atlantic is experiencing overfishing. Biomass is less than that which is needed to achieve Maximum Sustainable Yield (SSB_{MSY}), and the stock is overfished according to the current definition of the minimum stock size threshold (**Figures 1** and **2**). However, blueline tilefish would not be overfished based on the overfished definition being considered in Regulatory Amendment 21 to the Snapper Grouper FMP (under review). Ending overfishing would allow the blueline tilefish biomass to increase to SSB_{MSY}.

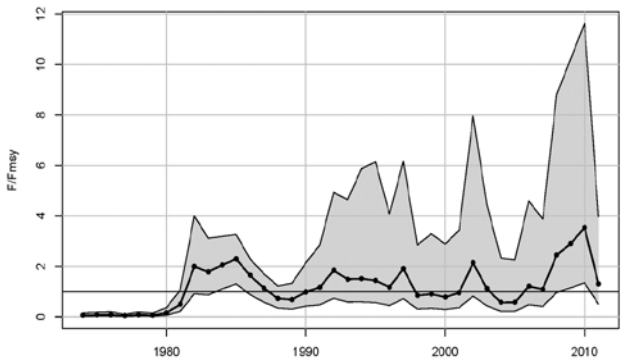

Figure 1. The overfishing ratio for blueline tilefish over time. The stock is undergoing overfishing when the F/F_{MSY} is greater than one (SEDAR 32 2013).

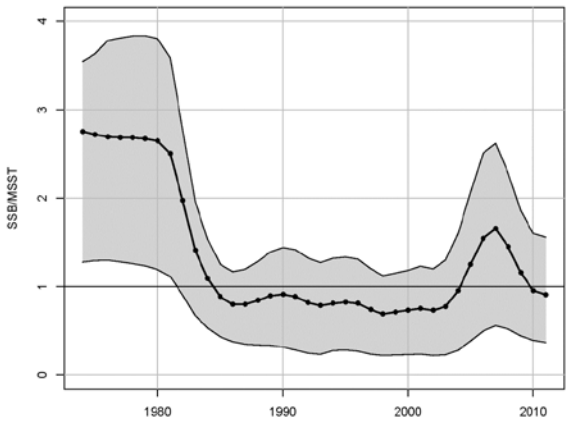

Figure 2. The overfished ratio for blueline tilefish over time. The stock is overfished when the SSB/MSST is less than one (SEDAR 32 2013).

Didn't the Council Request Emergency Action to Reduce Harvest of Blueline Tilefish?

At their December 2013 meeting, the Council began development of Amendment 32. At that same meeting, the Council determined that reducing overfishing of the stock while Amendment 32 is being developed was in the best interest of the fish stock and fishermen. Therefore, the Council requested that the NMFS take emergency action to reduce overfishing of blueline tilefish.

Although the actions in the emergency rule, which was implemented on April 17, 2014, were likely to have adverse socio-economic effects in 2014, the Council determined that the short-term effects would be justified to minimize long-term reductions in harvest that may be required if the current levels of unsustainable harvest continue to reduce the biomass of the blueline tilefish stock. Landings in 2012 (477,126 pounds (lbs) whole weight (ww)) were significantly greater than the maximum sustainable yield at equilibrium (226,500 lbs ww). Continued exploitation at levels similar to the 2012 landings could negatively affect the health of the blueline tilefish stock.

What is an Emergency Rule?

If the Council determines that an emergency exists, NMFS may implement temporary regulations necessary to address the emergency. If the Council vote is unanimous, NMFS must implement the temporary actions. If the vote is not unanimous, NMFS may implement the actions. The Council voted 12 to 1 (NMFS Regional Administrator) to request emergency action at their December 2013 meeting. The temporary regulations may remain in effect for no more than 180 days, but may be extended for an additional 186 days.

Definitions

Annual Catch Limits
The level of annual catch (pounds or numbers) that triggers accountability measures to ensure that overfishing is not occurring.

Annual Catch Targets
The level of annual catch (pounds or numbers) that is the management target of the fishery, and accounts for management uncertainty in controlling the actual catch at or below the ACL.

Accountability Measures
Management controls to prevent ACLs, including sector ACLs, from being exceeded, and to correct or mitigate overages of the ACL if they occur.

Allocations
A division of the overall ACL among sectors (e.g., recreational and commercial) to create sector ACLs.

Maximum Sustainable Yield
Largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological and environmental conditions.

Optimum Yield
The amount of catch that will provide the greatest overall benefit to the nation, particularly with respect to food production and recreational opportunities and taking into account the protection of marine ecosystems.

Minimum Stock Size Threshold
A status determination criterion. If current stock size is below MSST, the stock is overfished.

How Does the South Atlantic Council Determine the Annual Catch Limits?

ACLs are derived from the overfishing limit (OFL) and the acceptable biological catch (ABC; **Figure 3)**. The Council's Scientific and Statistical Committee (SSC) determines the OFL from the stock assessment and the ABC (based on the Council/SSC's ABC control rule). The OFL is an estimate of the catch level above which overfishing is occurring. The ABC is defined as the level of a stock or stock complex's annual catch that accounts for the scientific uncertainty in the estimate of OFL and any other scientific uncertainty. Using the ABC as a start, the Council is proposing a total ACL for the blueline tilefish stock in the South Atlantic. The total ACL is then divided into sector ACLs using the allocation currently in place for blueline tilefish (50.07% commercial and 49.93% recreational).

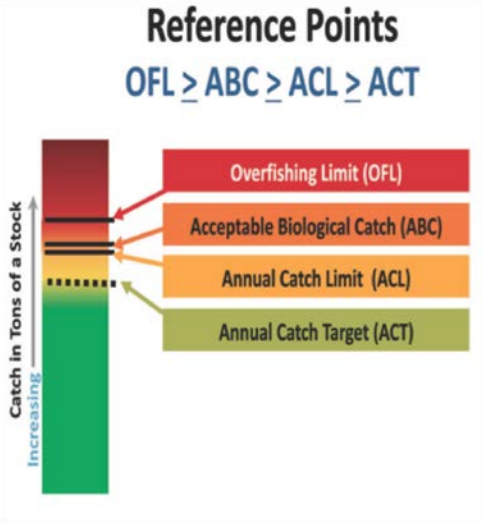

Figure 3. The relationship of the reference points to each other.

The SSC recommended an OFL equal to the yield at P*=50%. P* is the probability of overfishing. The ABC was determined by applying the ABC control rule. Through Amendment 32, the Council is adopting the ABC recommendation from the SSC. The SSC's ABC recommendation is the yield at P*=0.30 (**Table 1**).

Table 1. ABC (pounds whole weight) for blueline tilefish recommended by the Council's SSC in April 2014.

Year	ABC
2015	36,359
2016	54,548
2017	72,928
2018	89,769

Summary of Effects

Action 1. Revise the Composition of the Deepwater Complex and Adjust the Deepwater Complex Annual Catch Limits, Optimum Yield, and Annual Catch Targets

Alternative 1. (No Action). The Deepwater Complex includes blueline tilefish, yellowedge grouper, silk snapper, misty grouper, queen snapper, sand tilefish, black snapper, and blackfin snapper. Blueline tilefish has been temporarily removed from the Deepwater Complex via an emergency rule issued under the Magnuson-Stevens Act. The emergency rule became effective on April 17, 2014, will be in place for 180 days (through October 14, 2014), and may be extended for 186 additional days.

The no action alternative is characterized by the following scenarios: (1) the temporary values currently in place via the emergency rule, (2) the values that were temporarily replaced by the emergency rule and that would become effective when the temporary rule expires, and (3) the values that would be in place if Amendment 29 to the Snapper Grouper Fishery Management Plan for the South Atlantic Region are implemented. The Council is proposing a revision to the acceptable biological catch control rule for certain unassessed snapper grouper species in Amendment 29. The actions in Amendment 29 would change the acceptable biological catch for silk snapper, yellowedge grouper, and the Deepwater Complex. The Council is currently scheduled to approve Amendment 29 to send to the Secretary of Commerce at the September 2014 Council meeting.

Alternative 2 (Preferred). Remove blueline tilefish from the Deepwater Complex. Revise the Deepwater Complex annual catch limits, optimum yield, and recreational annual catch targets to reflect the removal of blueline tilefish. **Retain ACL=OY=ABC for the Deepwater Complex.** Retain recreational ACT equals ACL*(1-PSE) or ACL*0.5, whichever is greater for the Deepwater Complex.

The following alternatives are being recommended for the Council to review at their September 2014 meeting.

Alternative 3. Remove blueline tilefish from the Deepwater Complex. Revise the Deepwater Complex annual catch limits, optimum yield, and recreational annual catch targets to reflect the removal of blueline tilefish. **Establish ACL=OY=95%ABC for the Deepwater Complex.** Retain recreational ACT equals ACL*(1-PSE) or ACL*0.5, whichever is greater for the Deepwater Complex.

Alternative 4. Remove blueline tilefish from the Deepwater Complex. Revise the Deepwater Complex annual catch limits, optimum yield, and recreational annual catch

targets to reflect the removal of blueline tilefish. **Establish ACL=OY=90%ABC for the Deepwater Complex.** Retain recreational ACT equals ACL*(1-PSE) or ACL*0.5, whichever is greater for the Deepwater Complex.

Alternative 5. Remove blueline tilefish from the Deepwater Complex. Revise the Deepwater Complex annual catch limits, optimum yield, and recreational annual catch targets to reflect the removal of blueline tilefish. **Establish ACL=OY=80%ABC for the Deepwater Complex.** Retain recreational ACT equals ACL*(1-PSE) or ACL*0.5, whichever is greater for the Deepwater Complex.

The values for the Deepwater Complex annual catch limits, optimum yield, and recreational annual catch target are listed in **Table 2** below.

Table 2. Proposed ACLs, OY and recreational ACT for the Deepwater Complex for alternatives under Action 1.

	Deepwater Complex ACL, OY, and Recreational ACT (pounds whole weight)			
	Total ACL	**Commercial ACL**	**Recreational ACL**	**Recreational ACT**
Alternative 1 (No action) --Temporary rule	79,684	60,371	19,313	197,100[1]
--When temporary rule expires	711,025	376,469	334,556	197,100
--If Amendment 29 implemented	801,619	447,732	353,887	200,577
Alternative 2 (Preferred) (ACL=OY=ABC)	170,278	131,634	38,644	13,134
Alternative 3 (ACL=OY=95%ABC)	161,764	125,052	36,712	12,477
Alternative 4 (ACL=OY=90%ABC)	153,250	118,471	34,780	11,821
Alternative 5 (ACL=OY=80%ABC)	136,222	105,307	30,915	10,507

[1]The Deepwater Complex recreational ACTs were not temporarily changed through the emergency rule.

Biological Effects

The difference between **Alternative 1 (No Action)** and **Alternatives 2 (Preferred)** through **5** is that **Alternative 1 (No Action)** would not change the current species composition of the Deepwater Complex, which currently includes blueline tilefish. In 2012, blueline tilefish represented 96% of the landings of the Deepwater Complex. The blueline tilefish portion of Deepwater Complex annual catch limit (ACL) is 89%. Therefore, landings of blueline tilefish have, by far, the greatest influence on triggering accountability measures (AM) for the Deepwater Complex if the ACL is met by the commercial or recreational sectors. Removal of blueline tilefish under **Alternative 2**

(Preferred) would make it less likely that an in-season closure of the Deepwater Complex would occur because, other than blueline tilefish, species in the Deepwater Complex are not generally targeted and their landings are minor.

Alternatives 3 through **5** would specify lower ACLs than **Alternatives 1 (No Action)** and **2 (Preferred)** and would be expected to have positive biological effects on the stock since allowable harvest levels would be reduced from current levels. Positive effects to species in the Deepwater Complex increase from **Alternative 2 (Preferred)** through **5** as the ACLs decrease. Among **Alternatives 2 (Preferred)** to **5**, **Alternative 5** would impart the greatest biological benefits as the ACL would be set 10% below the ABC to account for management uncertainty. Such a buffer would ensure that landings do not go above the acceptable biological catch (ABC) thus preventing overfishing. However, AMs would be in place (**Actions 5 and 6**) to retain landings below the ACL, hence biological impacts would differ little among the proposed alternatives.

These actions may increase the level of bycatch if harvest of blueline tilefish or the deepwater species (including blueline tilefish) is prohibited in-season. In addition, if fishery managers implement separate blueline tilefish and Deepwater Complex ACLs and AMs, bycatch would increase if one ACL is closed and another open and fishermen are forced to discard fish. However, any increase in bycatch of blueline tilefish or other species in the Deepwater Complex is not expected to be substantial for several reasons. First, in 2012, blueline tilefish represented 96% of the landings in the Deepwater Complex; therefore, fishing effort towards the other species in the Deepwater Complex would likely be greatly reduced if harvest of blueline tilefish is prohibited because the other species in the complex are likely not targeted. Second, commercial fishermen may still retain the recreational bag limit if the commercial sector is closed and the recreational sector is open. The ability to retain the fish, even at low levels, would reduce the adverse effects of bycatch. Finally, blueline tilefish is largely caught separately from other deepwater species such as snowy grouper; therefore, incidental catch of blueline tilefish is not expected.

Economic Effects

Of the alternatives considered under Action 1, **Alternative 2 (Preferred)** would result in highest short-term landings and ex-vessel revenues. **Alternatives 3-5** provide for a buffer between the ABC and the ACL, which have long-term economic benefits due to a greater ability for landings to stay below the ACL. However, since the species in the Deepwater Complex (once blueline tilefish is removed) are not typically targeted, annual landings that exceed the ACL are unlikely. The biological benefits of an added buffer (**Alternatives 3-5**) between the ACL and ABC are minimal. Therefore, it is expected that **Alternative 2 (Preferred)** would result in the greatest combination of short-term and long-term economic benefits. **Alternative 2 (Preferred)** removes blueline tilefish from the Deepwater Complex, which provides for biological benefits due to a lower likelihood that an in-season closure would occur. These biological benefits would result in long-term economic benefits through higher future landings due to improved stock health. At

the same time, **Alternative 2 (Preferred)** provides for higher ACL levels than **Alternatives 3-5** without negative biological effects.

Social Effects

Changes to management of blueline tilefish and access to the resource could affect fishermen who target blueline tilefish, and associated communities and businesses. **Section 3.3.3** of the amendment provides detailed information about communities that could be affected by management changes and ACLs, particularly for the North Carolina community of Wanchese.

Changing the species included in the Deepwater Complex is primarily administrative and would be expected to have little direct effects on fishermen and communities. **Alternative 1 (No Action)** could affect fishermen targeting blueline tilefish by removing some flexibility provided by inclusion of blueline tilefish the ACL for the Deepwater Complex. However, **Preferred Alternative 2** would allow more precise management of blueline tilefish without affecting management of the other deepwater species, which would be expected to contribute to rebuilding of the blueline tilefish stock.

What are the Current ACLs for the Deepwater Complex and Where Did They Come From?

The Council and NMFS established ACLs for the Deepwater Complex on April 16, 2012, through the Comprehensive ACL Amendment. Fishery managers placed nine species, including blueline tilefish, into the Deepwater Complex. The Deepwater Complex ACL was determined using the ABC recommendation from the SSC and both the ACL and allocation formulas approved by the Council. The SSC summed the median or third highest landings (1999-2008) for each species in the Deepwater Complex to determine an overall ABC recommendation for the complex. The ABC recommendation was 675,908 pounds ww. The overfishing level of the complex is unknown. The Council then set ACL equal to the ABC. The ACL for the Deepwater Complex was later changed to 771,025 pounds whole weight (pounds ww) through Regulatory Amendment 13 to incorporate updates to the recreational data as per the new MRIP. Each species' portion of the ACL was divided by the approved allocation formula and then summed. The commercial and recreational ACLs for the Deepwater Complex are 376,469 pounds ww and 334,556 pounds ww, respectively.

Action 2. Re-define Maximum Sustainable Yield for Blueline Tilefish

Maximum Sustainable Yield (MSY) is the largest long-term average catch that can be taken continuously (sustained) from a stock or stock complex under average environmental conditions.

MSY for blueline tilefish was established through Amendment 11 to the Snapper Grouper FMP (SAFMC 1998). At that time, a stock assessment for blueline tilefish had not been conducted to estimate MSY. Therefore, the Council used a "proxy", or substitute, value for yield at MSY as 30% of the Spawning Potential Ratio (SPR). Now that a stock assessment has been conducted that provides an estimate of MSY, the Council needs to take action to adopt the new value and continue to adopt recommended MSY values as they are obtained from the Southeast Data, Review, and Assessment (SEDAR) process and the Scientific and Statistical Committee (SSC).

	Equation	F_{MSY}	MSY Values (pounds whole weight)
Alternative 1. No Action	Do not change the current definition of MSY for blueline tilefish. Currently, MSY equals the yield produced by F_{MSY}. $F_{30\%SPR}$ is used as the F_{MSY} proxy.	$F_{30\%SPR}$=0.356	not specified
Alternative 2. Preferred	MSY equals the yield produced by F_{MSY} or the F_{MSY} proxy. MSY and F_{MSY} are recommended by the most recent SEDAR/SSC.	0.302	226,500

Biological Effects

MSY is a reference point used by managers to assess fishery performance over the long term. As a result, redefined management reference points could require regulatory changes in the future as managers monitor the long term performance of the stock with respect to the new reference point. Therefore, these parameter definitions would affect subject stocks and the ecosystem of which they are a part, by influencing decisions about how to maximize and optimize the long-term yield of fisheries under equilibrium conditions and triggering action when stock biomass decreases below a threshold level.

MSY in **Alternative 1 (No Action)** is defined as the yield produced by F_{MSY} where $F_{30\%SPR}$ is used as the F_{MSY} proxy and represents the overfishing level defined in Amendment 11 to the Snapper Grouper FMP (SAFMC 1998). In **Alternative 1 (No Action)**, a poundage for MSY is not specified since one was not specified in Amendment 11 because blueline tilefish had not been assessed.

What Does SPR Mean?

SPR stands for **S**pawning **P**otential **R**atio. It is defined as the average fecundity of a recruit over its lifetime when the stock is fished divided by the average fecundity of a recruit over its lifetime when the stock is unfished. The yield at F_{SPR} may serve as proxy, or substitute, for F_{MSY} if the spawner-recruit relationship cannot be estimated reliably.

Alternative 2 (Preferred) would redefine the MSY proxy of the blueline tilefish stock based on the recommendation of the SEDAR 32 (2013) Review Panel and the Council's Scientific and Statistical Committee (SSC) to equal the value associated with the yield at F_{MSY} (226,500 pounds ww). The implementation of a MSY equation would have beneficial effects on the blueline tilefish stock as it provides a reference point to monitor the long-term performance of the stock.

Economic Effects

Defining MSY for blueline tilefish does not alter the current harvest or use of the resource. Specification of this metric merely establishes a benchmark for blueline tilefish portion of the snapper grouper fishery and resource evaluation on which additional management actions for the species would be based if management adjustments were necessary. The impacts of these management adjustments will be evaluated as they are proposed. As a benchmark, MSY would not limit how, when, where, or with what frequency participants in the snapper grouper fishery engage in harvesting blueline tilefish. This includes participants who directly utilize the resource (commercial vessels, for-hire operations, and recreational anglers), as well as participants associated with peripheral and support industries.

Since there would be no direct effects on resource harvest or use, there would be no direct effects on fishery participants, associated industries or communities. Direct effects only accrue to actions that alter harvest or other use of the resource.

Specifying MSY, however, establishes the platform for future management, specifically from the perspective of bounding allowable harvest levels. In this sense, MSY may be considered to have indirect effects on fishery participants. As a benchmark, MSY establishes a parameter that conditions subsequent management actions, and as such, defining MSY takes special significance. Of the alternatives considered in this action, **Alternative 2 (Preferred)**, which is recommended in the most recent SEDAR and by the SSC, has a better scientific basis. Hence, it provides a more solid ground for management actions that have economic implications.

Social Effects

Social effects of management specifications such as MSY for a stock would be associated with both the biological and economic effects of the MSY value. A MSY level that reflects the best available information (**Preferred Alternative 2**) could result in lower values for fishing mortality and consequently lower ACLs, which would likely affect fishermen targeting blueline tilefish. However an informed and relevant MSY is expected to result in greater expected long-term benefits to the commercial fleet and recreational fishermen who target blueline tilefish than under **Alternative 1 (No Action)**.

Action 3. Establish Annual Catch Limits and Optimum Yield for Blueline Tilefish

Alternative 1 (No Action). Do not specify individual annual catch limits or optimum yield for blueline tilefish. Annual catch limits and optimum yield for blueline tilefish are temporarily in place. The National Marine Fisheries Service has temporarily removed blueline tilefish from the Deepwater Complex and established the following annual catch limits for blueline tilefish for the commercial and recreational sectors: total ACL = 224,100 pounds whole weight (lbs ww); commercial ACL = 112,207 pounds ww; and recreational ACL = 111,893 lbs ww. The temporary measures will be in place for 180 days (through October 14, 2014) and may be extended for 186 additional days.

Note: Blueline tilefish is in the Deepwater Complex and there is an annual catch limit for the complex. Action 1 proposes to remove blueline tilefish from the complex. If Action 1 is implemented and the temporary ACL expires, there would not be an ACL for blueline tilefish.

Alternative 2. Establish annual catch limits for blueline tilefish. **The blueline tilefish ACL = OY = ABC.** Specify commercial and recreational annual catch limits for blueline tilefish for 2015, 2016, 2017, and 2018 and beyond. The annual catch limit for 2018 will remain in effect until modified. Annual catch limits in 2016, 2017, and 2018 will not increase automatically in a subsequent year if present year projected catch has exceeded the total annual catch limit. Specify commercial and recreational annual catch limits based on existing sector allocations (50.07% commercial and 49.93% recreational).

	Blueline Tilefish ACL (pounds ww)		
Year	**Total**	**Commercial**	**Recreational**
2015	36,359	18,205	18,154
2016	54,548	27,312	27,236
2017	72,928	36,515	36,413
2018 and beyond until modified	89,769	44,947	44,822

Alternative 3 (Preferred). Establish annual catch limits for blueline tilefish. **The blueline tilefish ACL = OY = 98%ABC.** Specify commercial and recreational ACLs for blueline tilefish for 2015, 2016, 2017, and 2018 and beyond. The annual catch limit for 2018 will remain in effect until modified. Annual catch limits in 2016, 2017, and 2018 will not increase automatically in a subsequent year if present year projected catch has exceeded the total annual catch limit. Specify commercial and recreational annual catch limits based on existing sector allocations (50.07% commercial and 49.93% recreational).

	Blueline Tilefish ACL (pounds ww)		
Year	**Total**	**Commercial**	**Recreational**
2015	35,632	17,841	17,791
2016	53,457	26,766	26,691
2017	71,469	35,785	35,685
2018 and beyond until modified	87,974	44,048	43,925

Alternative 4. Establish annual catch limits for blueline tilefish. **The blueline tilefish ACL = OY = 90%ABC.** Specify commercial and recreational annual catch limits for blueline tilefish for 2015, 2016, 2017, and 2018 and beyond. The annual catch limit for 2018 will remain in effect until modified. Annual catch limits in 2016, 2017, and 2018 will not increase automatically in a subsequent year if present year projected catch has exceeded the total annual catch limit. Specify commercial and recreational annual catch limits based on existing sector allocations (50.07% commercial and 49.93% recreational).

	Blueline Tilefish ACL (pounds ww)		
Year	**Total**	**Commercial**	**Recreational**
2015	32,723	16,384	16,339
2016	49,093	24,581	24,512
2017	65,635	32,864	32,772
2018 and beyond until modified	80,792	40,453	40,339

Biological Effects

Previously, blueline tilefish was included in the Deepwater Complex, and the blueline tilefish's portion of the complex annual catch limit was 631,341 pounds whole weight (pounds ww). However, effective April 17, 2014, NMFS temporarily removed blueline tilefish from the Deepwater Complex and specified the following for blueline tilefish: total ACL = 224,100 pounds ww commercial ACL = 112,207 pounds ww; and recreational ACL = 111,893 pounds ww. These temporary regulations will be in place for 180 days (through October 14, 2014) and may be extended for 186 additional days.

There are negative biological consequences associated with retaining blueline tilefish in the Deepwater Complex and not specifying individual ACLs as outlined in **Alternative 1 (No Action)**. The most recent stock assessment has determined that the stock is undergoing overfishing and biomass is below SSB_{MSY}. The stock is overfished according to the current definition of the minimum stock size threshold (MSST) but is not overfished based on MSST being considered for blueline tilefish and 7 other snapper grouper species in Regulatory Amendment 21 to the Snapper Grouper FMP (under review). Although NMFS implemented temporary ACLs to reduce overfishing as specified in **Alternative 1 (No Action)**, this alternative would not reduce fishing mortality levels to those necessary to end overfishing on a long-term basis. The biomass of blueline tilefish, already in a depressed state, would likely further decrease if harvest levels are not reduced.

Alternatives 2 through **4**, which reduce harvest of blueline tilefish, would be expected to have positive biological effects on the stock since allowable harvest levels would be reduced from 2012 landings by 332,961 to around 10%. The harvest reductions are based on the results of the recent stock assessment and harvest level recommendation from the Council's SSC. **Alternative 4** would have greater positive effects to blueline tilefish compared to **Alternatives 2** and **3** as **Alternative 4** would establish lower allowable catch levels.

Economic Effects

Alternatives 1 (No Action) through **Alternative 4** result in different ACLs for blueline tilefish. **Alternative 1 (No Action)** does not specify individual annual catch limits or optimum yield for blueline tilefish. **Alternative 1 (No Action)** does not incorporate the latest stock assessment information indicating that the blueline tilefish stock is undergoing overfishing and is overfished. Therefore, under **Alternative 1 (No Action)**, overfishing would continue resulting in long-term negative economic benefits.

Alternative 2, **Alternative 3 (Preferred)**, and **Alternative 4** propose more conservative ACLs than under **Alternative 1 (No Action)** and could result in short-term economic losses. However, **Alternative 2**, **Alternative 3 (Preferred)**, and **Alternative 4** would potentially result in long-term economic benefits once the stock is rebuilt through higher landings and ex-vessel revenues for the commercial fishery and higher total consumer surplus and net operating revenues over time for the recreational sector. **Alternative 2** proposes the least conservative ACL (ranging from approximately 36,000

to 90,000 pounds ww from 2015 to 2018 and beyond) while **Alternative 4** proposes the most conservative ACL (ranging from approximately 33,000 to 81,000 pounds ww from 2015 to 2018 and beyond) for blueline tilefish.

The differences in the range of ACLs among **Alternatives 2**, **3 (Preferred)**, and **4** differ by about 3,600 pounds ww and 9,000 pounds ww for 2015 and for 2018 and beyond, respectively. Therefore, differences in resulting economic impacts among **Alternative 2**, **Alternative 3 (Preferred)**, and **Alternative 4** are relatively small. However, comparisons between the proposed alternatives and **Alternative 1 (No Action)** are large. **Alternative 2** could result in commercial annual ex-vessel losses ranging from approximately $196,000 to $141,000 from 2015 to 2018 (in 2012 U.S. dollars). The recreational fishery would suffer similar losses (94,000 to 67,000 pounds) but these cannot be quantified in lost consumer surplus or net operating revenues at this time due to lack of data regarding the willingness-to-pay for blueline tilefish. **Alternative 3 (Preferred)** could result in commercial annual ex-vessel losses ranging from approximately $197,000 to $143,000 from 2015 to 2018, and recreational annual losses from 96,000 to 68,000 pounds over the same time period. **Alternative 4** would result in commercial annual ex-vessel losses of approximately $200,000 to $150,000 from 2015 to 2018 and recreational annual losses of 96,000 to 72,000 pounds. While these values show the difference between the status quo ACL and the proposed ACLs, actual losses would be greater since the status quo ACL has been exceeded in recent years. Commercial landings of blueline tilefish in 2012 were approximately 294,000 pounds (see **Table 3.3.12** in the amendment document) while recreational pounds were estimated at 89,000 but estimates for 2013 were projected to be much higher (over 300,000 pounds). Therefore, the actual commercial annual ex-vessel revenue losses and recreational consumer surplus and net operating revenue losses could be three times the amount calculated here although commercial exceedance of the ACL is less likely due to new reporting requirements that improve the quota tracking system.

Alternative 4 would likely have the greatest overall economic benefits in the long-term by establishing the lowest allowable catch levels because of expected higher landings in the future, higher ex-vessel revenues for the commercial sector, and higher consumer surpluses and net operating revenues for the recreational sector. That said, the differences among **Alternative 2**, **Alternative 3 (Preferred)**, and **Alternative 4** are minimal whereas **Alternative 1 (No Action)** would have the smallest long-term economic benefits.

Social Effects

Blueline tilefish is an important component to the commercial species landed in Wanchese, North Carolina, in addition to potentially being an important recreational species in communities such as Key West, Florida (see **Section 3.3.3** in the amendment document). Changes to the ACL and access to the resource could affect individuals and businesses in these communities. However, in Wanchese, the overall importance to the community is not as great as that of other species. The importance to specific vessels is unknown but the primary effect would likely be vessels substituting blueline tilefish for

other species, if available, when access to the blueline tilefish resource is limited or prohibited.

Changes in the ACL for any stock would not directly affect resource users unless the ACL is met or exceeded, in which case AMs that restrict or close harvest could negatively impact the commercial fleet, for-hire fleet, and private anglers. AMs can have significant direct and indirect social effects because, when triggered, can restrict harvest in the current season or subsequent seasons. While the negative effects are usually short-term, they may at times induce other indirect effects through changes in fishing behavior or business operations that could have long-term social effects, such as increased pressure on another species, or fishermen having to stop fishing altogether due to regulatory closures.

In general, the higher the ACL, the greater the short-term social and economic benefits that would be expected to accrue, assuming long-term recovery is met. Adhering to stock recovery is assumed to result in net long-term positive social and economic benefits. Additionally, adjustments in an ACL based on updated information from a stock assessment would be the most beneficial in the long term to fishermen and communities because catch limits would be based on the current conditions, even if the updated information indicates that a lower ACL is appropriate to sustain the stock.

The expected short-term effects on fishermen under **Alternative 1 (No Action)** are likely to be less severe than under lower ACLs proposed in **Alternatives 2-4**. However, continued fishing levels under **Alternative 1 (No Action)** would have negative biological effects on the blueline tilefish stock, and resulting long-term negative effects on blueline tilefish fishermen. **Alternative 4** would be expected to result in the least short-term negative effects and the most long-term benefits to fishermen and communities, followed by **Preferred Alternative 3** and **Alternative 2**.

Action 4. Establish a Recreational Annual Catch Target for Blueline Tilefish

Alternative 1 (No Action). Do not establish an individual annual catch target for blueline tilefish for the recreational sector.

Note: Blueline tilefish is in the Deepwater Complex and there is an annual catch target for the complex. Action 1 proposes to remove blueline tilefish from the complex. If Action 1 is implemented and the temporary annual catch target expires, there would not be an annual catch target for blueline tilefish.

Alternative 2 (Preferred). Establish an annual catch target for blueline tilefish for the recreational sector that equals the recreational ACL*(1-PSE) or ACL*0.5, whichever is greater.

	Blueline Tilefish ACT (pounds ww)		
Year	**Action 3; Alternative 2 (ACL=ABC)**	**Action 3; Preferred Alternative 3 (ACL=98%ABC)**	**Action 3; Alternative 4 (ACL=90%ABC)**
2015	11,368	**11,141**	10,231
2016	17,055	**16,714**	15,350
2017	22,802	**22,346**	20,522
2018 and beyond until modified	28,067	**27,506**	25,261

Note: Calculations use the most recent 5 years of recreational landings to obtain the PSE.

	Blueline Tilefish PSE
Year	
2009	35.6
2010	27.8
2011	43.6
2012	27.8
2013	52.1
Average	37.38

Alternative 3. Establish an annual catch target for blueline tilefish for the recreational sector that equals 85% of the recreational annual catch limit.

	Blueline Tilefish ACT (pounds ww)		
Year	**Action 3; Alternative 2 (ACL=ABC)**	**Action 3; Preferred Alternative 3 (ACL=98%ABC)**	**Action 3; Alternative 4 (ACL=90%ABC)**
2015	15,431	15,122	13,888
2016	23,150	22,687	20,835
2017	30,951	30,332	27,856
2018 and beyond until modified	38,098	37,336	34,289

Biological Effects

At present, annual catch targets (ACT) are used as a management reference point to track performance of the management measures imposed on the recreational sector. No AMs are triggered if recreational landings reach the recreational ACT. Hence, biological effects are neutral for all alternatives considered, including **Alternative 1 (No Action)**.

If fishery managers compare landings to the ACT to manage the recreational sector (e.g., establish bag limits) then **Alternative 2** would have the greatest biological benefit of the three alternatives considered since the ACT is lower than that under **Alternative 3**. Under **Alternative 2**, the lower the value of the proportional standard error (PSE), the more reliable the landings data. By using PSE in **Alternative 2**, more precaution is taken with increasing variability and uncertainty in the landings data. If AMs were triggered when landings reached or were projected to reach the ACT, the need to close or implement post-season AMs that are meant to correct for an ACL overage would be diminished. However, as previously stated, no accountability measures are currently tied to the ACT; hence, biological benefits are not realized.

Economic Effects

If the ACT were used to trigger AMs for the recreational sector, economic effects would be similar in nature to those under Action 3, though not necessarily in magnitude. Under that scenario, **Alternative 1 (No Action)** would have the same economic effects as any of the ACL alternatives under **Action 3**.

If ACTs were used to trigger control measures, they would serve as "cushions" to effectively limit harvests and thus contribute to rebuilding of the stock. Long-term economic benefits would then ensue from a healthy stock. As long as long-term economic benefits outweigh short-term costs, the fishing industry and society in general would be better off. Realization of long-term economic benefits depends on a host of factors, including the type

of management regime adopted. These factors render relatively uncertain the long-term economic outcome of ACTs, at least from the standpoint their magnitude. It appears that a prudent action to take would be to properly manage short-term costs. Relatively large short-term costs, such as those that may occur under more restrictive ACTs, may not be totally outweighed by long-term benefits. There is therefore weak economic rationale for adopting such type of restrictive control measures.

Social Effects

Establishment of a recreational ACT for blueline tilefish apart from the Deepwater Complex recreational ACT would likely have little effect on recreational fishermen targeting blueline tilefish. A higher ACT could be more beneficial for fishermen, depending on the levels specified in **Preferred Alternative 2** and **Alternative 3**. Because the ACT is used for monitoring only, it is expected that the social effects of **Alternative 1 (No Action)**, **Preferred Alternative 2**, and **Alternative 3** would be the same.

Action 5. Specify Accountability Measures for Blueline Tilefish and the Deepwater Complex for the Commercial Sector

Alternative 1 (No Action). Accountability measures are temporarily in place for blueline tilefish for the commercial sector. The National Marine Fisheries Service has temporarily removed blueline tilefish from the Deepwater Complex and established an in-season accountability measure for blueline tilefish for the commercial sector. The accountability measure is as follows: If commercial landings for blueline tilefish reach or are projected to reach the commercial annual catch limit, National Marine Fisheries Service will file a notification with the Office of the Federal Register to close the commercial sector for blueline tilefish for the remainder of the fishing year. The temporary measures will be in place for 180 days (through October 14, 2014) and may be extended for 186 additional days.

Accountability measures are in place for the Deepwater Complex for the commercial sector. The accountability measures are as follows: **In-season:** If commercial landings for the Deepwater Complex, as estimated by the SRD, reach or are projected to reach the commercial ACL, the AA will file a notification with the Office of the Federal Register to close the commercial sector for this complex for the remainder of the fishing year. **Post-season:** If commercial landings exceed the ACL and at least one species overfished, reduce the ACL in following year by overage amount.

Note: Blueline tilefish is in the Deepwater Complex and there is an accountability measure for the commercial sector for the complex. Action 1 proposes to remove blueline tilefish from the complex. If Action 1 is implemented and the temporary accountability measure for the commercial sector expires, there would not be an accountability measure for blueline tilefish.

Alternative 2 (Preferred). Specify the following in-season and post-season accountability measures for blueline tilefish and the Deepwater Complex for the commercial sector: If commercial landings as estimated by the Science and Research Director reach or are projected to reach the commercial ACL, the Regional Administrator shall publish a notice to 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 this species in or from the South Atlantic EEZ is limited to the 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 as appropriate, without regard to where such species were harvested, i.e., in state or Federal waters. Additionally,

Sub-alternative 2a. If the commercial ACL is exceeded, the Regional Administrator shall publish a notice to reduce the commercial ACL in the following fishing year by the amount of the commercial overage, only if the species is overfished.

Sub-alternative 2b. If the commercial ACL is exceeded, the Regional Administrator shall publish a notice to reduce the commercial ACL in the

following fishing year by the amount of the commercial overage, only if the total ACL (commercial ACL and recreational ACL) is exceeded.

Sub-alternative 2c (Preferred). If the commercial ACL is exceeded, the Regional Administrator shall publish a notice to reduce the commercial ACL in the following fishing year by the amount of the commercial overage, only if the species is overfished and the total ACL (commercial ACL and recreational ACL) is exceeded.

Note: For the Deepwater Complex, at least one of the species would need to be overfished.

Biological Effects

Alternative 1 (No Action) allows the Regional Administrator to close the commercial sector in-season if the ACL is met or projected to be met. However, this measure is only temporarily in place. **Alternative 2** would change the commercial payback provisions for blueline tilefish as proposed under **Sub-alternatives 2a-2c (Preferred)**. Currently, there is no built in mechanism to correct an ACL overage if one were to occur. Therefore, biological benefits would be realized under any of the three sub-alternatives considered. **Sub-alternative 2a** is associated with only one criterion for triggering implementation of a payback of the ACL, and it would ensure that paybacks are triggered when they are most needed, i.e., when the species is overfished. This provision is currently in place for black grouper, mutton snapper, yellowtail snapper, greater amberjack, red porgy, and unassessed snapper grouper species. However, if a species is not overfished and the commercial ACL is exceeded, no payback would be required. Thus, **Sub-alternative 2a** would only result in biological benefits if the species is overfished. **Sub-alternative 2b** is likely to have similar or greater beneficial biological impacts than **Sub-alternative 2a**, as the AM would be triggered when both the recreational and commercial ACLs have been exceeded regardless of overfished status. It is difficult to predict how often this AM would be triggered compared to **Sub-alternative 2a**; however, it is likely that overages of the total ACL may happen more frequently than exceeding the commercial ACL when a species is overfished. Regulatory Amendment 21 to the Snapper Grouper FMP (under review) would modify the current overfished definition (MSST) for eight snapper grouper species, including blueline tilefish, to prevent species with low natural mortality rates from frequently fluctuating between an overfished and rebuilt condition due to natural environmental conditions rather than fishing pressure. Therefore, the risk of exceeding the commercial ACL while blueline tilefish is considered overfished would be minimized, and the AM proposed under **Sub-alternative 2a** could be triggered less often than that under **Sub-alternative 2b**.

Sub-alternative 2c (Preferred) would be triggered the least frequently of all the sub-alternative payback AMs under consideration, because the payback would only be required if two criteria are met: (1) blueline tilefish is overfished, and (2) the total ACL has been exceeded. The likelihood of both of these scenarios taking place at the same time is small. **Sub-alternative 2c (Preferred)** may implement a commercial payback

under such infrequently encountered simultaneous events that it may lead to a payback provision not being triggered when it is actually biologically necessary. Therefore, **Sub-alternative 2c (Preferred)** may be associated with the lowest level of biological benefits compared to **Sub-alternatives 2a** and **2b**.

Economic Effects

All options under **Alternative 2** would result in short-term ex-vessel revenue losses to the commercial sector compared to recent landings. Over the long-term, however, these alternatives would provide a beneficial economic scenario for the commercial sector by addressing issues related to overfishing of the stock. With a relatively stable stock over time, future harvest would increase or at least would be stable. This stability could benefit the commercial sector financially by paving the way for more confident business planning with more predictable landings that could result in improvements in reliability of landings to dealers and their markets.

The alternatives differ in the conditions that must occur for an overage to be subtracted from the following year's ACL. **Sub-alternatives 2a** and **2b** are more restrictive than **Sub-alternative 2c (Preferred)** but less restrictive than **Alternative 1 (No Action)** because only one of these triggers is required for a reduction in the following year's ACL. **Sub-alternative 2c (Preferred)** allows for a larger catch than might otherwise be allowed under the other sub-alternatives but still protects the stock. There are short-term economic benefits associated with the less restrictive sub-alternatives as a result of higher ex-vessel revenues that would occur.

Social Effects

In general, the most beneficial in the long term for the stock and for sustainable fishing opportunities is a combination of an in-season closure and a payback provision. However, some flexibility in how these AMs are triggered, such as conditions of the stock being overfished or the total ACL being exceeded, can help to mitigate the negative short-term impacts on fishermen and associated businesses and communities. **Alternative 1 (No Action)** would not be expected to result in effects on the commercial fleets of these fisheries because it would not be consistent with changes to the management of blueline tilefish and the Deepwater Complex. **Preferred Alternative 2** would likely benefit fishermen in the long term by maximizing effectiveness of the ACL through in-season and post-season AMs. **Sub-alternatives 2a, 2b** and **Preferred 2c** would provide some flexibility and specifics for triggering the AMs. **Preferred Sub-alternative 2c** would provide the most flexibility for triggering the payback AM, in that the most critical conditions must be met before the payback is triggered, and would be expected to be most beneficial to commercial fishermen in that it would be less likely that a payback is required for an overage. Additionally, **Preferred Sub-alternative 2c** would be more consistent with AMs implemented for other species such as king mackerel and Spanish mackerel.

Action 6. Specify Accountability Measures for Blueline Tilefish and the Deepwater Complex for the Recreational Sector

Alternative 1 (No Action). Accountability measures are temporarily in place for blueline tilefish for the recreational sector. The National Marine Fisheries Service has temporarily removed blueline tilefish from the Deepwater Complex and established an in-season accountability measure for blueline tilefish for the recreational sector. The accountability measure is as follows: If recreational landings for blueline tilefish reach or are projected to reach the recreational annual catch limit, National Marine Fisheries Service will file a notification with the Office of the Federal Register to close the recreational sector for blueline tilefish for the remainder of the fishing year. The temporary measures will be in place for 180 days (through October 14, 2014) and may be extended for 186 additional days.

Accountability measures are in place for the Deepwater Complex for the recreational sector. The accountability measures are as follows: **In-season:** none. **Post-season:** If recreational landings for the Deepwater Complex exceed the recreational ACL then during the following fishing year, recreational landings will be monitored for a persistence in increased landings and, if necessary, NMFS will reduce the length of the following recreational fishing season by the amount necessary to ensure recreational landings do not exceed the recreational ACL in the following fishing year.

Note: Blueline tilefish is in the Deepwater Complex and there is an accountability measure for the recreational sector for the complex. Action 1 proposes to remove blueline tilefish from the complex. If Action 1 is implemented and the temporary accountability measures for the recreational sector expire, there would not be accountability measures for blueline tilefish.

Alternative 2 (Preferred). Specify the following post-season accountability measures for blueline tilefish and the Deepwater Complex for the recreational sector: If recreational landings, as estimated by the Science and Research Director, exceed the recreational ACL, then during the following fishing year, recreational landings will be monitored for a persistence in increased landings.

Sub-alternative 2a. If necessary, the Regional Administrator shall publish a notice to 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. The length of the recreational season and recreational ACL will not be reduced if the Regional Administrator determines, using the best scientific information available, that a reduction is unnecessary.

Sub-alternative 2b. If necessary, the Regional Administrator shall publish a notice to 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 total ACL (commercial ACL and recreational ACL) is exceeded. The length of the recreational season and recreational ACL will not be reduced if the Regional

Administrator determines, using the best scientific information available, that a reduction is unnecessary.

Sub-alternative 2c (Preferred). If necessary, the Regional Administrator shall publish a notice to 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. The length of the recreational season and recreational ACL will not be reduced if the Regional Administrator determines, using the best scientific information available, that a reduction is unnecessary.

Alternative 3. Specify the following in-season accountability measures for blueline tilefish for the recreational sector: If recreational landings for blueline tilefish reach or are projected to reach the recreational annual catch limit, National Marine Fisheries Service will file a notification with the Office of the Federal Register to close the recreational sector for blueline tilefish for the remainder of the fishing year.

Alternative 4 (Preferred). If recreational landings reach or are projected to reach the recreational annual catch limit, National Marine Fisheries Service will file a notification with the Office of the Federal Register to close the recreational sector for the remainder of the fishing year, unless, using the best scientific information available, the Regional Administrator determines that a closure is unnecessary.

Sub-alternative 4a. If the species is overfished.

Sub-alternative 4b (Preferred). Regardless of stock status.

Note: For the Deepwater Complex, at least one of the species would need to be overfished.

Biological Effects

Sub-alternatives 2a, 2b, and 2c (Preferred), would maintain the ability of the Regional Administrator to interpret landings data to determine whether a payback is needed. However, these sub-alternatives would all allow the payback to take the form of a recreational ACL reduction and a season length reduction, compared to **Alternative 1 (No Action),** which is a temporary in-season closure if landings are projected to reach the ACL for blueline tilefish.

Sub-alternative 2a would allow the Regional Administrator to correct for a recreational ACL overage by reducing the length of the fishing season and the recreational ACL in the following fishing year by the amount of the recreational overage, but only if the species is overfished. Therefore, if the recreational ACL is exceeded and increased landings through the next fishing year are detected, but the species is not overfished, no corrective action to pay back the ACL overage would be required. This scenario could lead to negative biological impacts, especially if the recreational ACL is exceeded repeatedly without an overfished determination.

Sub-alternative 2b would allow the Regional Administrator to reduce the length of the fishing season and the recreational ACL following persistently high landings if the total ACL (commercial and recreational ACL combined) is exceeded. It is likely that overages of the total ACL would happen more frequently than exceeding the commercial ACL when a species is overfished. Furthermore, the definition of MSST for blueline tilefish could be changed if Regulatory Amendment 21 is approved, making it less likely for blueline tilefish to be determined to be overfished. Thus, it is expected that the AM under **Sub-alternative 2b** would be triggered more frequently and have a greater biological benefit than **Sub-alternative 2a**.

Sub-alternative 2c (Preferred) would only trigger a recreational ACL payback (in the form of a reduced recreational ACL and season length following an ACL overage) if a species is overfished and the total ACL is exceeded. This AM is the least likely to be implemented considering the infrequently encountered scenario of a total ACL being exceeded and a species being overfished in the same fishing year. Under **Sub-alternative 2c (Preferred)**, no action would be taken to correct for a recreational ACL overage unless both of those criteria are met. Therefore, **Sub-alternative 2c (Preferred)** may be the least biologically beneficial compared to the other **Alternative 2** sub-alternatives considered.

Alternatives 3 and 4 (Preferred) would allow a more timely response to recreational landings data that may indicate a species' recreational ACL is going to be met or exceeded while the fishing season is still open. Requiring an in-season closure when recreational landings information indicate an ACL is going to be met may prevent the need for implementation of a post season AM such as reducing the length of the next fishing season or reducing the ACL in the next fishing season. Biologically, it is preferable to prevent overexploitation of a resource rather than correcting for it after overharvest has occurred. **Alternatives 3** and **4 (Preferred)** may not be practicable by themselves, however, for species with extremely small recreational ACLs, such as blueline tilefish. For this reason, the most biologically beneficial option would be to implement a system of recreational AMs that combines **Alternatives 2 (Preferred)** and **3** or **4 (Preferred)**.

Under **Alternative 4**, an in-season action to close a recreational sector could be triggered under one of two circumstances specified in **Sub-alternative 4a** or **Sub-alternative 4b (Preferred)**. If the recreational ACL is met or projected to be met, **Sub-alternative 4a** would *only* close the recreational sector in-season if the species is overfished. Therefore, if the landings information indicates the ACL will be met or exceeded within the fishing year, and the species is not overfished, no action would be taken to prevent the ACL overage from occurring. Alternatively, **Sub-alternative 4b (Preferred)** would allow an in-season recreational closure to take place regardless of overfished status, possibly preventing a potential ACL overage for any species addressed under this action. **Sub-alternative 4b (Preferred)** is the biologically preferable sub-alternative under **Alternative 4 (Preferred)**, since a recreational closure could be implemented regardless of overfished status. However, under **Alternative 4 (Preferred)**, the Regional Administrator would still have the option to not implement an in-season

closure for a species that is not overfished, if the best scientific information indicates a closure is not necessary. In that scenario, the biological benefits of **Sub-alternative 4b (Preferred)** may be equal to those under **Sub-alternative 4a**.

Compared to **Alternative 1 (No Action)**, **Alternatives 2 (Preferred)**, **3**, and **4 (Preferred)** would all benefit the biological environment to varying degrees based on the sub-alternatives chosen under each alternative. For the recreational sector, the most biologically beneficial option is likely a combination of **Alternatives 2** and **4 (Preferred)**. None of the alternatives being considered under this action would significantly alter the way in which the snapper grouper fishery is prosecuted in the South Atlantic exclusive economic zone. No adverse impacts on endangered or threatened species are anticipated because of this action; nor are any adverse impacts on essential fish habitats or habitat areas of particular concern including corals, sea grasses, or other habitat types expected because of this action.

Economic Effects

Alternative 1 (No Action) economically benefits the recreational sector in the long-term because it helps to prevent overfishing. Overfishing leads to long-term economic losses in consumer surplus and revenues for headboat and charter operations due to decreases in available harvest as a result of decreased stock health. All sub-alternatives under **Alternative 2 (Preferred)** are less restrictive than **Alternative 1 (No Action)**. The **Alternative 2** sub-alternatives provide a beneficial economic outcome for the recreational sector by addressing issues related to overfishing of the stock but allowing for greater access to the resource than under **Alternative 1 (No Action)**.

The alternatives differ in the conditions that must occur for an overage to be subtracted from the following year's ACL. **Alternative 1 (No Action)** is the most restrictive option compared to the **Alternative 2 (Preferred)** sub-alternatives in that the ACL in the following year's season length is reduced if recreational landings exceed the ACL while the **Alternative 2** sub-alternatives reduce the season length only if certain additional conditions are met. **Sub-alternative 2c (Preferred)** is the least restrictive and requires a reduction in the following year's ACL only if the total ACL is exceeded *and* the stock is overfished. **Sub-alternatives 2a** and **2b** are more restrictive than **Sub-alternative 2c (Preferred)** but less restrictive than **Alternative 1** because only one of these triggers is required for a reduction in the following year's ACL. **Sub-alternative 2c (Preferred)** allows for a larger catch than might otherwise be allowed under the other sub-alternatives but still protects the biological stocks. There are short-term economic benefits associated with the less restrictive sub-alternatives as a result of increase access to the resource, higher consumer surpluses, and increased revenues for for-hire vessels that would occur.

Social Effects

For the recreational sector, **Alternative 1 (No Action)** would have minimal effects but also would not establish necessary AMs for blueline tilefish and the Deepwater Complex, which could have negative social effects if the long-term health of the stock or complex is affected. The Deepwater Complex would have a reduced ACL due to

removal of blueline tilefish in Action 1, and blueline tilefish would have a reduced ACL under Action 3. For establishment of a payback provision for the recreational sector for stocks without a post-season AM under **Preferred Alternative 2** would create an increased likelihood that an overage by the recreational sector could reduce fishing opportunities in the following year. However **Sub-alternatives 2a, 2b,** and **Preferred 2c** provide some flexibility in how a post-season payback would be triggered, with **Preferred Sub-alternative 2c** being the least likely to trigger a payback and affecting recreational fishing opportunities in the subsequent year for both the Deepwater Complex and for blueline tilefish.

The in-season closure AMs for the Deepwater Complex and blueline tilefish for the recreational sector in **Alternative 3** could have negative effects on recreational fishing opportunities and for-hire businesses because there has not been an in-season recreational AM in place for blueline tilefish and the Deepwater Complex. However, the in-season closure would likely help prevent the frequency of paybacks, along with additional protection for the blueline tilefish resource and the Deepwater Complex. **Preferred Alternative 4** would provide flexibility for when the in-season AM is triggered if information is available that indicates that the closure is not necessary, which could help reduce the risks of an in-season closure. **Preferred Sub-alternative 4b** would provide additional flexibility and is expected to further reduce the risk of an in-season closure, more so than under **Sub-alternative 4a**.

Action 7. Establish a Trip Limit for Blueline Tilefish for the Commercial Sector

Alternative 1 (No Action). Do not establish a trip limit for blueline tilefish for the commercial sector.

Alternative 2. Establish a commercial trip limit for blueline tilefish of 100 pounds ~~whole weight (lbs ww).~~ gutted weight (gw).

Alternative 3. Establish a commercial trip limit for blueline tilefish of 200 pounds ~~whole weight (lbs ww).~~ gutted weight (gw).

Alternative 4. Establish a commercial trip limit for blueline tilefish of 300 pounds ~~whole weight (lbs ww).~~ gutted weight (gw).

Biological Effects

Trip limit analyses were conducted using trip level information for 2013 from the Coastal Logbooks, updated as of 4/28/14. Data from 2012 were not used because of the restriction on harvest and possession of eight deepwater snapper grouper species, including blueline tilefish, in waters greater 240 ft from January through May 10th and the closure of the Deepwater Complex on Sept 9th due to exceeding the ACL. **Tables 3** through **5** show the results of the various trip limit scenarios for each of the ACL alternatives under Action 3.

Note: the trip limit analyses were conducted using whole weight instead of gutted weight. If the Council choses to specify the trip limit in gutted weight, the analyses will be revised accordingly.

Table 3. Trip Limit Analysis Results for ACL = ABC.

Alternatives	Days Fishing	
	Total	Predicted End date
Alternative 1: No Limit	21	January 21
Alternative 2: 100 pound limit	168	June 17
Alternative 3: 200 pound limit	129	May 9
Alternative 4: 300 pound limit	104	April 14

Table 4. Trip Limit Analysis Results for ACL = 98% of ABC (Preferred).

Alternatives	Days Fishing	
	Total	Predicted End date
Alternative 1: No Limit	19	January 19
Alternative 2: 100 pound limit	166	June 15
Alternative 3: 200 pound limit	129	May 9
Alternative 4: 300 pound limit	102	April 12

Table 5. Trip Limit Analysis Results for ACL = 90% of ABC.

Alternatives	Days Fishing	
	Total	Predicted End date
Alternative 1: No Limit	12	January 12
Alternative 2: 100 pound limit	154	June 3
Alternative 3: 200 pound limit	115	April 25
Alternative 4: 300 pound limit	98	April 8

The biological effects of **Alternatives 2** through **4** would be expected to be neutral compared to **Alternative 1 (No Action)**, because ACLs and AMs are in place to cap harvest, and take action if ACLs are exceeded. Alternatives with larger trip limits could present a greater biological risk to blueline tilefish in terms of exceeding the ACL since the rate of harvest would be greater. However, improvements have been made to the quota monitoring system, and the South Atlantic Council has approved a Dealer Reporting Amendment (effective August 7, 2014), which should enhance data reporting. Larger trip limits could also result in earlier closures of blueline tilefish. Early closures can lead to regulatory discards and release mortality for blueline tilefish is 100%, which would not be beneficial to the stock. Similarly smaller trip limits could increase bycatch if a trip is not ended and fishermen continue to target co-occurring species when the blueline tilefish trip limit is met. Therefore, little difference in the biological effects of the trip limit alternatives is expected.

Economic Effects

Under **Alternative 1 (No Action)**, no trip limit would be imposed on the harvest of blueline tilefish and the pace of fishing would not be expected to be altered. Therefore, overfishing would be expected to continue unless other actions in this amendment are successful in enabling adherence to the ACL. In general, a larger trip limit is expected to result in a shorter season for commercial fishermen, which would likely result in an increase in regulatory discards. A smaller trip limit could result in a longer season for commercial fishermen and decrease the chances of exceeding the ACL and contributing to overfishing. A larger trip limit could result in more profitable trips because fishermen

would be able to take larger amounts of fish for similar operating costs. However, these potential short-term economic benefits depend on geographic location and would likely lead to long-term adverse economic effects. Distance to fishing grounds for blueline tilefish likely differs somewhat depending on port. Therefore, lower trip limits would likely be more appealing to fishermen located closer to fishing grounds while higher trip limits would likely appeal more to fishermen located further away from fishing grounds where blueline tilefish can be accessed. Fishermen's input will be important in determining the preferred alternative since sufficient information does not exist at this time regarding how large a trip limit has to be to make a blueline tilefish trip profitable.

Social Effects

In general, commercial trip limits may help slow the rate of harvest, lengthen a season, and prevent the ACL from being exceeded. However, trip limits that are too low may make fishing trips inefficient and too costly if fishing grounds are too far away, which could affect business decisions and fishing behavior for commercial fishermen. The costs and benefits to fishermen when considering commercial trip limits depend on if a longer season with a consistent supply of blueline tilefish is more important than maximizing efficiency on fishing trips, even if the season is shorter. Overall, it would be expected that fishermen and crew working on vessels in Wanchese, North Carolina, would be the most affected by the proposed trip limits in **Alternative 2**.

Alternative 1 (No Action) would be most beneficial for vessels that wish to maximize trip efficiency and have other species to target when blueline tilefish is not available. However, with a low proposed commercial ACL in **Action 3**, it is likely that the commercial season would be much shorter than in recent years with no trip limit in place. For fishing businesses that would benefit more from a higher trip limit than a longer season due to alternative species to target in other times of the year, **Alternative 4** would be the most beneficial, followed by **Alternative 3** and then **Alternative 2**. Any changes to fishing trips could affect captains, crew, fish houses and dealers, and businesses associated with blueline tilefish harvest. However the trip limits in **Alternatives 2-4** would likely prohibit a vessel from making a trip only to target blueline tilefish, and would require multi-species trips. This could change fishing behavior for fishermen harvesting blueline tilefish, and could affect associated businesses and communities such as Wanchese, North Carolina. However **Alternatives 2-4** could also be considered a bycatch allowance and allow fishermen to keep some blueline tilefish caught on trips targeting other species, which could improve profitability and efficiency of the trip.

Action 8. Adjust the Bag Limit for Blueline Tilefish for the Recreational Sector

Note: Council may choose multiple preferred alternatives.

Alternative 1 (No Action). Retain blueline tilefish in the aggregate grouper bag limit of 3/person/day. The aggregate group contains the following species: gag, black grouper, snowy grouper, misty grouper, red grouper, scamp, yellowedge grouper, yellowfin grouper, yellowmouth grouper, blueline tilefish, golden tilefish, sand tilefish, coney, graysby, red hind, and rock hind.

Alternative 2. Remove blueline tilefish from the aggregate grouper bag limit.

Alternative 3. Establish a bag limit of blueline tilefish of 1/person/day.

Alternative 4. Establish a vessel limit of blueline tilefish of 1/vessel/day.

Alternative 5. Establish a vessel limit of blueline tilefish of 1/vessel/day May through August and no retention during the rest of the year.

Alternative 6. Establish a vessel limit of blueline tilefish of 1/vessel/day year during May and June with no retention during the remainder of the year.

Alternative 7. Establish a vessel limit of blueline tilefish of 1/vessel/day during May with no retention during the remainder of the year.

Alternative 8. Establish a vessel limit of blueline tilefish of of 1/vessel/day during June with no retention during the remainder of the year.

Biological Effects

NOTE: Analyses for the various bag limit scenarios are ongoing and will be completed prior to the Council's September 2014 meeting.

Recreational catch of blueline tilefish by wave is shown in **Table 6** for 2012 and 2013. Expected dates when the recreational ACL would be met can be estimated from this information. The temporary recreational ACL (implemented through the emergency rule) is 111,893 pounds ww and would be exceeded in Wave 1 if 2014 catches are similar to 2013 or not exceeded all year if 2014 catches are similar to 2012 catches (**Table 7**). Recreational catches (**Table 7** and **Figure 4**; including all of Monroe County) have not exceeded this level from 2010 through 2012; however, catches did exceed this level from 2006 through 2009.

Table 6. Recreational 2012 and 2013 blueline tilefish catch by wave.

Year	Wave	MRIP Landings (pounds ww)*
2012	1	9,425
2012	2	3,767
2012	3	15,961
2012	4	33,064
2012	5	18,906
2012	6	7,679
Total		**88,803**
2013	1	153,002
2013	2	9,525
2013	3	7,125
2013	4	41,617
2013	5	3,080
2013	6	212
Total		**214,561**

*Note: Headboat landings are not included in the 2013 landings, but are included in the 2012 landings. Wave 6 for 2013 not available yet.

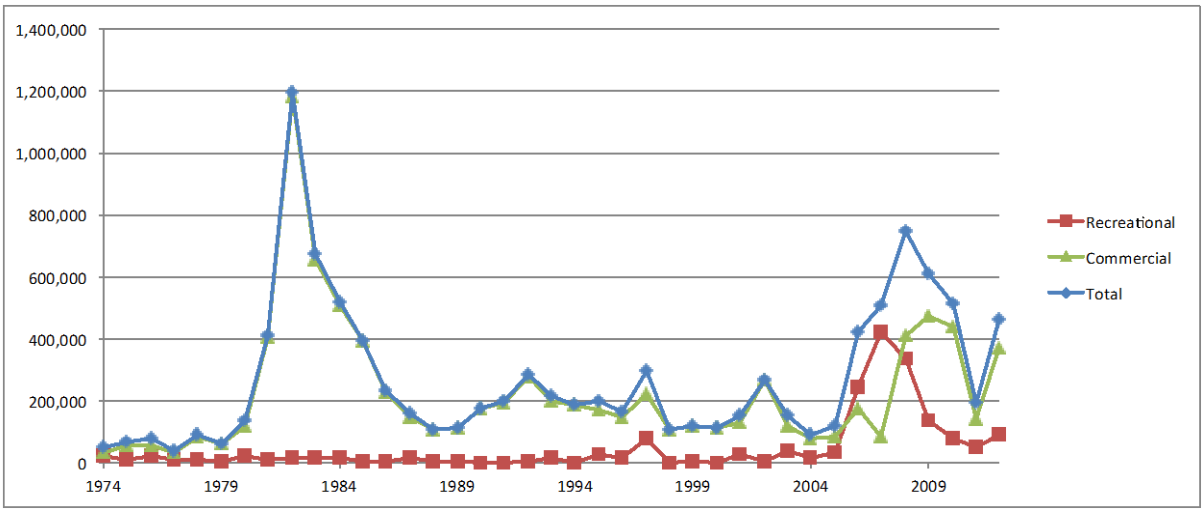

Figure 4. Observed blueline tilefish landings by sector in the South Atlantic region, 1974-2012. Source: SAFMC 2013 from data shown in Table 4 from SEDAR 32.

Table 7. Observed blueline tilefish landings (pounds ww) by sector in the South Atlantic, 1990-2012 from SEDAR 32.

Year	Recreational	Commercial	Total
1990	757	175,125	175,882
1991	802	194,854	195,656
1992	2,782	279,529	282,311
1993	13,509	200,204	213,713
1994	146	188,238	188,384
1995	26,466	170,881	197,347
1996	15,306	148,246	163,552
1997	78,196	219,988	298,184
1998	259	107,654	107,913
1999	3,718	116,243	119,961
2000	419	112,433	112,852
2001	23,836	127,824	151,660
2002	3,352	265,558	268,910
2003	36,122	119,079	155,201
2004	12,813	76,709	89,522
2005	32,349	83,936	116,285
2006	246,511	173,002	419,513
2007	422,938	85,103	508,041
2008	332,915	412,178	745,093
2009	137,860	474,844	612,704
2010	76,059	438,049	514,108
2011	51,779	141,502	193,281
2012	88,803	370,729	459,532

Economic Effects

In general, the short-term economic effects of bag limit changes for the recreational fishery depend on the change in access to the resource. **Alternative 1 (No Action)** allows the recreational sector the greatest access to retain blueline tilefish with up to three blueline tilefish kept per trip. While this may result in higher catch rates by the recreational sector, it does not directly affect long-term economic benefits, which are largely ruled by the ACL and the ability of AMs to be enforced. **Alternative 2** alone would restrict any access to blueline tilefish by the recreational sector. This is the least economically beneficial alternative for the recreational fishery in the short-term. Combining **Alternatives 2** with **Alternatives 3** or **4** would result in short-term economic benefits in between those expected under **Alternative 1 (No Action)** and **Alternative 2**.

Social Effects

In general, the social effects of modifying the recreational bag or vessel limit would be associated with the biological costs of each alternative (see **Section 4.8.1**), as well as

the effects on current recreational fishing opportunities. The aggregate bag limit (**Alternative 1 (No Action)**) would not contribute to directed management of blueline tilefish. **Alternative 2** could have negative long-term social effects associated with any biological effects of no bag limit for blueline tilefish, such as lower ACLs or limited access to the resource. **Alternatives 3-8** would limit recreational fishing opportunities for blueline tilefish but would also be expected to contribute to successful rebuilding of the stock.

Establishing a recreational season for blueline tilefish under **Alternatives 5-8** could contribute to rebuilding the stock and reducing discards of blueline tilefish by confining recreational landings in a small time period each year. The effects on recreational fishing opportunities of **Alternatives 5-8** would depend on how the open season of each alternative corresponds with current recreational fishing patterns.

References

SAFMC (South Atlantic Fishery Management Council). 1998. Comprehensive Amendment Addressing Sustainable Fishery Act Definitions and Other Required Provisions in Fishery Management Plans of the South Atlantic Region (Amendment 11 to the Snapper Grouper Fishery Management Plan). South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699. 151 pp.

SEDAR (Southeast Data, Assessment, and Review) 32. 2013. South Atlantic Blueline Tilefish. Southeast Data, Assessment and Review, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405. Available at: http://www.sefsc.noaa.gov/sedar/

Timing of Amendment 32

Public hearings held from 4 P.M. to 7 P.M. on the following dates and locations:

August 6, 2014 North Myrtle Beach, SC Bay Watch Resort & Conference Center 2701 S. Ocean Boulevard N. Myrtle Beach, SC 29582 Phone: 843-272-4600	**August 7, 2014** Crystal Coast Civic Center 3505 Arendell Street Morehead City, NC 28557 Phone: 252-247-3883
August 11, 2014 Key West Marriott Beachside 3841 North Roosevelt Boulevard Key West, FL 33040 Phone: 305-296-8100	**August 12, 2014** Hilton Cocoa Beach Oceanfront 1550 North Atlantic Ave. Cocoa Beach, FL 32931 Phone: 321-799-0003
August 13, 2014 Wyndham Jacksonville Riverwalk 1515 Prudential Drive Jacksonville, FL 32207 Phone: 904-396-5100	**August 14, 2014** Mighty Eighth Air Force Museum 175 Bourne Avenue Pooler, GA 31322 Phone: 912-743-8888

The Council will review public comments, request additional comment, approve all actions, and approve the amendment for formal review during the September 2014 meeting in Charleston, SC.

NMFS will issue a proposed rule and final rule, each with its respective comment period. NMFS will then consider comments submitted and approve, disapprove, or partially approve the amendment for implementation.

Regulations would be effective by early 2015.

Comments must be received by 5:00 P.M. on August 18, 2014
(see cover for addresses)