Regulatory Amendment 20 (Snowy Grouper) to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region

Decision Document

Rebuilding strategy, annual catch limits, and management measures for snowy grouper

September 2, 2014

Purpose & Need

Purpose for Action

The *purpose* of this amendment is to adjust the rebuilding strategy, update the acceptable biological catch (ABC), annual catch limit (ACL), maximum sustainable yield (MSY), minimum stock size threshold (MSST), optimum yield (OY), and revise management measures for the snowy grouper component of the snapper grouper fishery. These adjustments address the recent stock assessment results based on data through 2012.

Need for Action

The *need* for the amendment is to prevent overfishing and continue rebuilding the stock while minimizing, to the extent practicable, adverse social and economic effects.

COMMITTEE ACTION:

OPTION 1. ACCEPT THE IPT'S PROPOSED EDITS TO THE PURPOSE AND NEED.

OPTION 2. MODIFY THE IPT'S PROPOSED WORDING FOR THE PURPOSE AND NEED (COMMITTEE/COUNCIL TO SPECIFY CHANGES) AND APPROVE.

OPTION 3. OTHERS???

2.1 Action 1. Adjust the Rebuilding Strategy for Snowy Grouper

Alternative 1 (No Action). The current rebuilding strategy is specified as maintaining a modified/constant fishing mortality rate ($F=F_{MSY}$) throughout the rebuilding timeframe. The total allowable catch (TAC) specified for 2009, of 102,960 pounds whole weight (lb ww) remains in effect beyond 2009 until modified. The current acceptable biological catch (ABC) is 102,960 lbs ww consistent with this rebuilding strategy.

Alternative 2. Define a rebuilding strategy for snowy grouper that maintains a constant fishing mortality rate ($F=F_{Rebuild}$) throughout the rebuilding timeframe. Year 1 remains 2006 and the yield at $F_{Rebuild}$ and ABC projections will change with each assessment. Specify a probability of success of:

Sub-alternative 2a: 50%.

Sub-alternative 2b: 70%.

ABC would change each year until 2019; the ABC for 2019 would remain in effect until modified.

Preferred Alternative 3. Define a rebuilding strategy for snowy grouper that maintains a constant fishing mortality rate ($F= 75\%F_{MSY}$) throughout the rebuilding timeframe. Year 1 remains 2006 and the yield at $75\%F_{MSY}$ and ABC projections will change with each assessment. ABC would change each year until 2019; the ABC for 2019 would remain in effect until modified.

Alternative 4. Define a rebuilding strategy for snowy grouper that maintains a constant fishing mortality rate ($F=F_{current}$) throughout the rebuilding timeframe. Year 1 remains 2006 and the yield at $F_{current}$ and ABC projections will change with each assessment. ABC would change each year until 2019; the ABC for 2019 would remain in effect until modified.

Table 1. ABC (lbs gw) specified by Alternatives 1-4 in Action 1.

	Alt 1	Sub-Alt 2a	Sub-Alt 2b	Pref Alt 3	Alt 4
Year	F_{MSY}	$F_{rebuild}$ 50%	$F_{rebuild}$ 70%	$F_{current}$	75% F_{MSY}
2015	183,808	164,765	110,947	**125,023**	139,098
2016	194,572	176,357	121,711	**135,786**	151,518
2017	205,336	186,292	132,475	**145,722**	163,109
2018	214,443	196,228	142,410	**155,658**	173,873
2019	225,207	205,336	152,346	**165,593**	185,464

COMMITTEE ACTION:

OPTION 1. ACCEPT THE IPT'S PROPOSED WORDING CHANGES FOR ALTERNATIVE 1 UNDER ACTION 1.

OPTION 2. MODIFY THE IPT'S PROPOSED WORDING CHANGES FOR ALTERNATIVE 1 UNDER ACTION 1 (COMMITTEE/COUNCIL TO SPECIFY CHANGES) AND APPROVE.

OPTION 3. MODIFY PREFERRED ALTERNATIVE?

OPTION 4. OTHERS???

Summary of Effects

The rebuilding strategy under **Alternative 1 (No Action)** was specified in Amendment 15A to the Snapper Grouper FMP (SAFMC 2008) prior to the P* approach and establishment of the acceptable biological catch (ABC) control rule. Based on the results of SEDAR 4 (2004), which indicated snowy grouper was overfished and undergoing overfishing, Amendment 15A specified a 34 year rebuilding schedule and a rebuilding strategy for snowy grouper that maintains a modified/constant fishing mortality rate ($F=F_{MSY}$) throughout the rebuilding timeframe. **Alternatives 2-4** would establish a rebuilding strategy based on the results of the most recent stock assessment, which indicates the stock remains overfished, is rebuilding, and is no longer experiencing overfishing (**Table 2**).

Table 2. Stock status of snowy grouper.

	SEDAR 36 (2012 most recent data)
Overfishing ($F_{2010-2012}/F_{MSY}$)	No (0.59)
Overfished ($SSBF_{2012}$/MSST(75%))	Yes (0.65)
F_{MSY} (proxy for MFMT)	0.14
MSY	418,600 pounds whole weight (lbs ww)
MSST	1,442,264 lbs ww
OFL*	216,894 lbs ww in 2015 229,595 lbs ww in 2016 242,296 lbs ww in 2017 253,043 lbs ww in 2018 265,744 lbs ww in 2019
ABC**	164,136 lbs ww in 2015 178,791 lbs ww in 2016 192,469 lbs ww in 2017 205,170 lbs ww in 2018 218,848 lbs ww in 2019

*OFL at equilibrium = 418,600 lbs ww. OFL values for the years 2015 through 2019 are from Table 21 in SEDAR 36; , and is based in the yield at F_{MSY}.
** ABC values for the years 2015 through 2019 are from Table 22 in SEDAR 36, and are based on the yield at 75%F_{MSY}.
Total removals reported here are based on assuming 97.7% of total removals are landings (as reported in SEDAR 36).

The lower the harvest levels, the greater the biological benefit to a stock; however, there is a level of harvest that is sustainable and would not negatively impact the health of the stock.

Alternative 1 (No Action) would constrain harvest to a lower level than **Alternatives 2-4**. However, the 2013 stock assessment update indicates snowy grouper is no longer undergoing overfishing, and the South Atlantic Fishery Management Council's (South Atlantic Council) Scientific and Statistical Committee (SSC) has recommended an increase in the ABC; therefore, there is not a biological need to constrain harvest at the level specified by **Alternative 1 (No Action)**. Compared to **Alternative 1 (No Action),** biological effects on the snowy grouper stock would be expected to be neutral for alternatives that specify catch levels at or below the catch level recommendations of the South Atlantic Council's SSC (**Sub-Alternative 2b, Preferred Alternative 3, Alternative 4)**. **Sub-alternative 2a** would specify an ABC that is greater than the ABC recommended by the South Atlantic Council's SSC (**Preferred Alternative 3**), and could have minor biological effects when compared to **Alternative 1 (No Action)**. **Sub-alternative 2b,** with a 70% probability of successfully rebuilding snowy grouper by 2019, would allow for a lower ABC than the yield at 75%F_{MSY} recommended by the South Atlantic Council's SSC. **Preferred Alternative 3** is based on the yield at 75%F_{MSY} recommended by the SSC and would be expected to have greater biological benefits than **Alternative 2**. Therefore, **Preferred Alternative 3** would be using the best available science to adjust the rebuilding strategy for snowy grouper. **Alternative 4**, which would allow for a more conservative level of harvest than that recommended by the South Atlantic Council's SSC, would be expected to have biological effects that are intermediate compared with **Sub-alternative 2a** (50% probability of rebuilding success) and **Preferred Alternative 3**. **Alternative 4** would be expected to result in fewer biological benefits than **Sub-alternative 2b** (70% probability of rebuilding success) and **Alternative 1 (No Action)**. When compared to **Alternative 1 (No Action)**, only **Sub-alternative 2a** would be expected to have minor negative biological effects on the stock. Because the snowy stock is rebuilding, harvest levels at or below the SSC's catch level recommendation (**Sub-alternative 2b, Preferred Alternative 3, Alternative 4**) are appropriate and would not be expected to have any negative biological effects on the stock.

While the long-term health of the stock may improve with a rebuilding strategy that allows for a lower than necessary ABC, fishermen would not benefit from an increase in the health of a stock unless the ABC also increased, potentially resulting in a higher ACL. A stock assessment that indicates a lower ABC is necessary, would have indirect short-term benefits through potentially higher harvests. But this also would result in long-term adverse effects for fishermen as they could potentially exceed the ACL (if landings data collection efforts are not successful in accurately predicting an appropriate closure date) and result in damage to the long-term health of the stock and lower future catch rates. In general, the greatest economic benefit to commercial and recreational fishermen results from a rebuilding strategy that allows increased harvest and access to the resource compared to the current ABC and ACL, but would not cause long-term negative biological effects to the stock that could result in negative effects on fishermen in the future. In summary, **Preferred Alternative 3** is expected to yield the highest long-term economic benefits compared to the next best **Alternative 2**. **Alternative 4** is expected to yield the next highest long-term economic benefits followed by **Alternative 1 (No Action)**.

Because the recent assessment update determined that snowy grouper are no longer undergoing overfishing, **Alternative 1 (No Action)** would be expected to result in minimal or no benefits to fishermen by not taking advantage of possible flexibility in the rebuilding plan and associated ABCs. Overall, the most benefits to fishermen and communities would come from a

rebuilding strategy that allows increased harvest and access to the resource than the current ABC and ACL, but would not cause long-term negative biological effects to the stock that could result in negative effects on fishermen in the future. **Alternatives 2-4** would result in higher ABCs than under **Alternative 1 (No Action)** and increase access to the resource, which would be expected to reduce and minimize short-term negative effects on fishermen. **Sub-alternative 2a** would be expected to have the greatest benefits for fishermen, followed by **Preferred Alternative 3, Alternative 4**, and **Sub-alternative 2b**.

Action 2. Adjust Annual Catch Limits for Snowy Grouper

Alternative 1. (No Action.) The current acceptable biological catch (ABC) = 102,960 pounds whole weight (lb ww) or 87,254 pounds gutted weight (lbs gw). The total annual catch limit (ACL) (=ABC), commercial ACL, and recreational ACL are shown below:

		Pounds gutted weight (lbs gw)		
ABC	**ACL**	**Com ACL (95%)**	**Rec ACL (5%)**	**Rec # Fish**
87,254	87,254	82,900	4,400	523

Preferred Alternative 2. Specify that ACL=ABC=OY and apply the Council's existing allocation formula as it applies to snowy grouper (average of landings from 1986-2005) using the SEDAR landings data. The resulting allocation would change from 95% commercial/5% recreational to 83% commercial/17% recreational.

The ACL, commercial ACL, and recreational ACL are shown below.

Pounds whole weight (lbs ww)					
Year	**ABC**	**ACL**	**Com ACL (83%)**	**Rec ACL (17%)**	**Estimated Rec #Fish**
2015	164,136	164,136	136,233	27,903	4,152
2016	178,791	178,791	148,397	30,394	4,483
2017	192,469	192,469	159,749	32,720	4,819
2018	205,170	205,170	170,291	34,879	4,983
2019	218,848	218,848	181,644	37,204	5,315
Pounds gutted weight (lbs gw)					
Year	**ABC**	**ACL**	**Com ACL (83%)**	**Rec ACL (17%)**	**Estimated Rec #Fish**
2015	139,098	139,098	115,451	23,647	4,152
2016	151,518	151,518	125,760	25,758	4,483
2017	163,109	163,109	135,380	27,729	4,819
2018	173,873	173,873	144,315	29,558	4,983
2019	185,464	185,464	153,935	31,529	5,315

Note: ACLs would increase from 2015 to 2019, and remain at 2019 levels until a new stock assessment takes place.

Alternative 3. Update the ABC from the recent SEDAR assessment. Set ACL=X%ABC=OY and apply the Council's existing allocation formula as it applies to snowy grouper (average of landings from 1986-2005) using the SEDAR landings data. The resulting allocation would change from 95% commercial/5% recreational to 83% commercial/17% recreational. The ABC, ACL, commercial ACL, and recreational ACL are shown below.

Sub-alternative 3a. Set ACL=95%ABC=OY

Sub-alternative 3b. Set ACL=90%ABC=OY

Sub-alternative 3c. Set ACL=85%ABC=OY

Year	ABC ww	ACL ww	Com ACL ww (83%)	Rec ACL ww (17%)	ACL gw	Com ACL gw (83%)	Rec ACL gw (17%)	Estimated Rec #Fish
Sub-Alt 3a, ACL = 95%ABC								
2015	164,136	155,929	129,421	26,508	132,143	109,679	22,464	3,945
2016	178,791	169,851	140,976	28,875	143,942	119,472	24,470	4,259
2017	192,469	182,846	151,762	31,084	154,954	128,612	26,342	4,578
2018	205,170	194,912	161,777	33,135	165,179	137,099	28,080	4,734
2019	218,848	207,906	172,562	35,344	176,191	146,239	29,952	5,049
Sub-Alt 3b, ACL = 90%ABC								
2015	164,136	147,722	122,609	25,113	125,188	103,906	21,282	3,737
2016	178,791	160,912	133,557	27,355	136,366	113,184	23,182	4,035
2017	192,469	173,222	143,774	29,448	146,798	121,842	24,956	4,337
2018	205,170	184,653	153,262	31,391	156,486	129,883	26,603	4,484
2019	218,848	196,963	163,479	33,484	166,918	138,542	28,376	4,783
Sub-Alt 3b, ACL = 85%ABC								
2015	164,136	139,516	115,798	23,718	118,234	98,134	20,100	3,529
2016	178,791	151,972	126,137	25,835	128,790	106,896	21,894	3,811
2017	192,469	163,599	135,787	27,812	138,643	115,074	23,569	4,096
2018	205,170	174,395	144,748	29,647	147,792	122,667	25,125	4,235
2019	218,848	186,021	154,397	31,624	157,645	130,845	26,800	4,518

Note: ACLs would increase from 2015 to 2019, and remain at 2019 levels until a new stock assessment takes place.

Discussion

The ABC generated from SEDAR 36 is in pounds; however, the recreational ACL is in numbers of fish. Therefore, the recreational ACL in pounds had to be converted to numbers of fish. This was done by first determining snowy grouper average weight by year. As the stock rebuilds the average weight is expected to change each year. SEDAR 36 provides the annual projected removals both by numbers and weight when fishing mortality is fixed at 75%F_{MSY} (Table 22 of SEDAR 36 final report). This fishing mortality rate was chosen because yield generated from 75%F_{MSY} is SSC's the recommendation for ABC. For each year, the weights are divided by the numbers of fish to determine the annual average weight of an individual fish.

Table 3 shows the results of this calculation. The recreational ACL in pounds whole weight is divided by the annual average weight (of an individual fish) to convert the ACL from pounds to numbers of fish. For example, the 2015 recreational ACL of 8,207 pounds whole weight is divided by the average weight of 6.72 pounds to get a recreational ACL of 1,221 fish.

Table 3. Annual average weight of South Atlantic snowy grouper generated from SEDAR 36 projection results when fishing mortality is fixed at 75%F_{MSY}. Numbers and weight projections came from the median values of the stochastic projections, and the numbers are provided in Table 22 of the SEDAR 36 final report.

Year	Numbers of fish	Weight (lbs ww)	Average fish weight (lbs ww)
2015	25,000	168,000	6.72
2016	27,000	183,000	6.78
2017	29,000	197,000	6.79
2018	30,000	210,000	7.00
2019	32,000	224,000	7.00

COMMITTEE ACTION:

OPTION 1. ACCEPT THE IPT'S PROPOSED WORDING FOR ALTERNATIVE 2 UNDER ACTION 2.

OPTION 2. MODIFY THE IPT'S PROPOSED CHANGES TO ALTERNATIVE 2 UNDER ACTION 2 (COMMITTEE/COUNCIL TO SPECIFY CHANGES) AND APPROVE.

OPTION 3. APPROVE ADDITION OF ALTERNATIVE 3 AND ITS SUB-ALTERNATIVES.

OPTION 4. OTHERS???

Summary of Effects

While the ACL under **Alternative 1 (No Action)** is lower than that proposed under **Preferred Alternative 2** and **Alternative 3** (including its sub-alternatives), it does not reflect the recommendations of the latest stock assessment for snowy grouper, and specifying an ACL at a lower level may not be needed to maintain harvest of snowy grouper at sustainable levels. **Alternative 3**, which would specify a buffer between the ABC and ACL, would be expected to have greater biological benefits than **Preferred Alternative 2**, which would set ACL equal to the ABC and OY. **Sub-alternative 3c** has the largest buffer between the ABC and the ACL and would be expected to yield the largest biological benefits of all the sub-alternatives under **Alternative 3**. Furthermore, scientific and management uncertainties are included in the SSC's ABC control rule, which is factored into the ABC (and therefore ACL) values generated under **Preferred Alternative 2** and **Alternative 3** (including its sub-alternatives). Thus, like **Alternative 1 (No Action)**, **Alternatives 2 (Preferred)-3**, which specify an ACL at or below the catch levels recommended by the South Atlantic Council's SSC, would not be expected to have significant adverse biological effects on the snowy grouper stock.

Higher ACLs usually result in greater short-term economic benefits to commercial and recreational fishermen. Long-term economic benefits can also be realized if the ACL options are expected to achieve long-term biological health of the resource. However, the chances of long-term health are improved (if the sectors can be held to their ACLs) if a buffer exists between the ABC and the ACL. Therefore, since **Alternative 3** incorporates information from the newest stock assessment and incorporates a buffer, it is expected to achieve the greatest long-term health of the stock and therefore the greatest long-term economic benefits, with **Sub-alternative 3c** offering the largest buffer and therefore the largest economic benefits. **Preferred Alternative 2** incorporates new information from the new stock assessment and has a higher ACL and is therefore expected to produce greater long-term economic benefits than **Alternative 1 (No Action)** but because it would not create a buffer between the ABC and ACL, **Sub-alternative 3c** would likely yield the greatest economic benefits.

In general, the higher the ACL, the greater the short-term social benefits that would be expected to accrue, assuming long-term recovery and rebuilding goals are met. Adhering to stock recovery and rebuilding goals 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 and best available science. The ACLs under **Preferred Alternative 2** and **Alternative 3** would be higher than that under **Alternative 1 (No Action)** while maintaining the level of removals below the recommended ABC. The benefits to fishermen and fishing communities are expected to be greatest under **Preferred Alternative 2**. As the proposed ACL is subsequently lower under **Sub-alternatives 3a-3c**, the benefits would be less than under **Preferred Alternative 2**. The lower ACLs in **Sub-alternatives 3a-3c** could have negative short-term effects on fishermen if the AMs were triggered when a lower ACL was met. The updated commercial-recreational allocation (83%/17%) under **Preferred Alternative 2** and **Alternative 3** would also result in a higher ACL for the recreational sector, which would likely improve recreational fishing opportunities and reduce the risk of triggering the recreational AM. However, because the recreational overages

have been estimated to be almost 400% in recent years, it is possible that a recreational AM would still be triggered even with a higher recreational ACL. **Table 4** shows actual snowy grouper harvest by sector from 2005 through 2012.

Table 4. Actual snowy grouper harvest by sector from 2005 through 2012 from the SERO-Annual Catch Limits dataset. Current allocation = 95% commercial, 5% recreational.

	Commercial	% Harvested	Recreational	% Harvested	Total
Year	(ww)	by Comm	(ww)	by Rec	(ww)
2005	243,833	69%	108,800	31%	352,633
2006	252,299	60%	169,337	40%	421,636
2007	132,154	68%	60,985	32%	193,139
2008	85,768	83%	17,006	17%	102,775
2009	89,225	54%	77,173	46%	166,398
2010	102,245	68%	48,123	32%	150,368
2011	43,473	97%	1,496	3%	44,969
2012	104,889	69%	46,176	31%	151,065

2.3 Action 3. ~~Split the Commercial Fishing Year into 2 Fishing Seasons for Snowy Grouper~~ Commercial Management Measures for Snowy Grouper

(Note: The Accountability Measures (AMs) are being addressed in the Generic Accountability Measure/Dolphin Allocation Amendment.)

Alternative 1 (No Action). The current commercial snowy grouper fishing year is the calendar year with no split of the commercial ACL into separate seasons. The current commercial snowy grouper trip limit is 100 pounds gutted weight (lbs gw).

Alternative 2. Split the commercial snowy grouper ACL into two quotas: 50% to the period January 1 through April 30 and 50% to the period May 1 through December 31. Any remaining commercial quota from the January through April season carries over into the May through December season; any remaining commercial quota from the May through December season does not carry over into the next fishing year. The following trip limit would apply to each season:

Sub-alternative 2a. 100 pounds gutted weight (lbs gw).

Sub-alternative 2b. 150 lbs gw.

Sub-alternative 2c. 200 lbs gw.

ACL Alternatives (Action 2)	Trip limit sub-alternatives (lbs gw) (Action 3)					
	2a. 100		2b. 150		2c. 200	
	Season 1	Season 2	Season 1	Season 2	Season 1	Season 2
1. No Action quota=41,446 lbs gw	No Closure	24-Aug	18-Apr	10-Jul	28-Mar	24-Jun
2 (Preferred). ACL=ABC quota=57,726 lbs gw	**No Closure**	**26-Dec**	**No Closure**	**10-Sep**	**No Closure**	**19-Jul**
3a. ACL=95% ABC quota=54,840 lbs gw	No Closure	8-Dec	No Closure	26-Aug	25-Apr	14-Jul
3b. ACL=90% ABC quota=51,953 lbs gw	No Closure	16-Nov	No Closure	13-Aug	19-Apr	9-Jul
3c. ACL=85% ABC quota=49,067 lbs gw	No Closure	22-Oct	No Closure	31-Jul	13-Apr	4-Jul

Note: 2015 ACL values are used in the table above, and 50% of the ACL is used in each season. ACLs would increase from 2015 to 2019, and remain at 2019 levels until a new stock assessment takes place.

Alternative 3. Split the commercial snowy grouper ACL into two quotas: 40% to the period January 1 through April 30 and 60% to the period May 1 through December 31. Any remaining commercial quota from the January through April season carries over into the May through December season; any remaining commercial quota from the May through December season does not carry over into the next fishing year. Maintain the current 100 pound gutted weight (lbs

gw) trip limit for the January 1 through April 30 season and establish the following trip limit for the May through December season:

Sub-alternative 3a. 100 lbs gw.
Sub-alternative 3b. 150 lbs gw.
Sub-alternative 3c. 200 lbs gw.
Sub-alternative 3d. 250 lbs gw.
Sub-alternative 3e. 300 lbs gw.

ACL Alternatives (Action 2)	Season 1 quota (lbs gw)	Date ACL met with 100 lbs trip limit	Season 2 quota (lbs gw)	Trip Limit sub-alternatives (Action 3) (lbs gw)				
				3a. 100	3b. 150	3c. 200	3d. 250	3e. 300
1. No Action	33,156	21-Apr	49,735	1-Sep	27-Jul	5-Jul	24-Jun	17-Jun
2. (Preferred) ACL = ABC	**46,180**	**No Closure**	**69,271**	**26-Dec**	**12-Oct**	**27-Aug**	**2-Aug**	**16-Jul**
3a. ACL=95% ABC	43,872	No Closure	65,807	8-Dec	23-Sep	16-Aug	25-Jul	9-Jul
3b. ACL=90% ABC	41,562	No Closure	62,344	16-Nov	7-Sep	6-Aug	17-Jul	2-Jul
3c. ACL=85% ABC	39,254	No Closure	58,880	22-Oct	24-Aug	27-Jul	8-Jul	27-Jun

Alternative 4. Modify the commercial snowy grouper trip limit from January 1 until the ACL is met or projected to be met:

Sub-alternative 4a. 300 lbs gw.
Sub-alternative 4b. 200 lbs gw.
Sub-alternative 4c. 150 lbs gw.

ACL Alternatives (lbs gw) (Action 2)	Trip limit sub-alternatives (lbs gw) (Action 3)		
	4a. 300	4b. 200	4c. 150
1. No Action. ACL=82,891	4-May	6-Jun	30-Jun
2 (Preferred). ACL=ABC= 115,451	**5-Jun**	**19-Jul**	**10-Sep**
3a. ACL=95% ABC=109,679	1-Jun	10-Jul	26-Aug
3b. ACL=90% ABC =103,906	26-May	30-Jun	13-Aug
3c. ACL=85% ABC=98,134	20-May	23-Jun	31-Jul

Note: 2015 ACL values are used in the table above. ACLs would increase from 2015 to 2019, and remain at 2019 levels until a new stock assessment takes place.

Alternative 5. ~~Maintain~~ Modify the ~~current~~ commercial snowy grouper trip limit ~~of~~ to 150 lbs gw all year or until the commercial ACL is met or projected to be met except for the period May through August from the Florida Volusia/Brevard County line north when the trip limit will be as follows:

Sub-alternative 5a. 200 lbs gw.
Sub-alternative 5b. 250 lbs gw.
Sub-alternative 5c. 300 lbs gw.

ACL Alternatives (lbs gw) (Action 2)	Trip limit sub-alternatives (lbs gw) (Action 3)		
	5a. 200	**5b. 250**	**5c. 300**
1.No Action. ACL=82,891	5-Jul	30-Jun	27-Jun
2 (Preferred). ACL=ABC=115,451	**19-Sep**	**7-Sep**	**27-Aug**
3a. ACL=95% ABC=109,679	4-Sep	24-Aug	16-Aug
3b. ACL=90% ABC=103,906	21-Aug	12-Aug	4-Aug
3c. ACL=85% ABC=98,134	7-Aug	31-Jul	24-Jul

Note: 2015 ACL values are used in the table above. ACLs would increase from 2015 to 2019, and remain at 2019 levels until a new stock assessment takes place. The closure dates in this table apply a 150 lbs gw trip limit from January to April and September to December. Then in the months of May to August a 150 lbs gw trip limit is applied in Brevard county and south of Brevard, and the 200, 250, and 300 lbs gw trip limits are applied north of Brevard.

Note: During public hearings, fishermen suggested a change to Indian River/Brevard County line instead of Volusia/Brevard.

COMMITTEE ACTION:

OPTION 1. ACCEPT THE IPT'S PROPOSED WORDING FOR ACTION 3 AND ALTERNATIVES 1 & 2 UNDER ACTION 3.

OPTION 2. MODIFY THE IPT'S PROPOSED WORDING FOR ACTION 3 AND ALTERNATIVES 1 & 2 UNDER ACTION 3 (COMMITTEE/COUNCIL TO SPECIFY CHANGES) AND APPROVE.

OPTION 3. APPROVE ADDITION OF ALTERNATIVES 4 & 5 UNDER ACTION 3.

OPTION 4. CHANGE ALTERNATIVE 5 TO APPLY TO INDIAN RIVER/BREVARD INSTEAD OF VOLUSIA/BREVARD

OPTION 5. APPROVE ALTERNATIVE X UNDER ACTION 3 AS THE PREFERRED ALTERNATIVE.

OPTION 5. OTHERS???

Summary of Effects

By dividing the commercial ACL into two six-month fishing quotas (**Alternatives 2** and **3**), fishermen would theoretically be given the opportunity to fish for snowy grouper at the beginning of the year and during the summer, and fishermen in the northern and southern areas of the South Atlantic would have a chance to fish for snowy grouper when weather conditions are favorable in their respective areas. The biological effects of the **Alternatives 2** through **5** (and their sub-alternatives) proposed in **Action 3** would be expected to be neutral compared with **Alternative 1 (No Action)**, because ACLs and AMs are in place to cap harvest and trigger corrective action if ACLs are exceeded. Alternatives with larger trip limits could present a greater biological risk to snowy grouper 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 commercial closures of snowy grouper. Early commercial closures could lead to regulatory discards. Since release mortality for snowy grouper is 100%, early commercial closures would not be beneficial to the stock. Early commercial closures could also result in bycatch of snowy grouper if fishermen target co-occurring species after the closure occurs. Similarly, smaller trip limits could increase bycatch if fishermen continue to target co-occurring species when the snowy grouper trip limit is met. Therefore, little difference in the biological effects of the trip limit alternatives is expected.

Table 5 shows commercial and recreational landings of snowy grouper, by state, from 1996-2008. **Table 6** shows the percent increases in monthly commercial landings under all the trip limit sub-alternatives considered in Action 3.

Table 5. Commercial and recreational landings (lbs ww) of snowy grouper, by state, from 1996 to 2008 in the South Atlantic.

Commercial snowy grouper landings (lbs ww)							
Year	**GA/FLE***	**%GA/FLE**	**NC**	**%NC**	**SC**	**%SC**	**Total**
1996	150,660	44%	123,223	36%	64,948	19%	338,831
1997	283,042	50%	162,936	29%	116,607	21%	562,585
1998	153,325	45%	123,210	36%	65,375	19%	341,910
1999	181,975	38%	217,496	46%	73,965	16%	473,436
2000	143,860	36%	186,788	46%	71,390	18%	402,038
2001	137,846	43%	106,748	34%	73,488	23%	318,082
2002	129,512	45%	110,614	39%	46,743	16%	286,869
2003	107,528	45%	104,645	44%	27,336	11%	239,509
2004	100,146	38%	97,470	37%	63,114	24%	260,730
2005	85,247	35%	86,146	35%	72,440	30%	243,833
2006	71,322	28%	102,567	41%	78,410	31%	252,299

2007	70,340	53%	48,363	37%	13,450	10%	132,153	
2008	46,338	54%	26,714	31%	12,716	15%	85,768	
Recreational snowy grouper landings (lbs ww) excluding Monroe County.								
	FLE	**%FLE**	**GA**	**%GA**	**NC**	**%NC**	**SC**	**%SC**	**Total**
1996	732	17%	11	0%	1,213	27%	2,471	56%	4,427
1997	158,444	65%	21	0%	84,599	35%	177	1%	244,362
1998	3,750	84%		0%	563	13%		4%	4,491
1999	61,871	86%	16	0%	10,157	14%	109	0%	72,153
2000	4,056	16%		0%	22,055	84%	13	0%	26,123
2001	11,182	20%	3	0%	44,294	79%	495	1%	55,974
2002	655	3%	3	0%	20,694	96%	313	1%	21,665
2003	9,374	34%		0%	17,608	65%	245	1%	27,227
2004	47,075	65%		0%	24,824	35%	2	0%	71,901
2005	79,377	73%		0%	29,121	27%	303	0%	108,800
2006	154,839	91%		0%	14,498	9%		0%	169,337
2007	30,311	50%		0%	30,511	50%	163	0%	60,985
2008	2,184	13%		0%	14,798	87%	24	0%	17,006

*Commercial snowy grouper landings for Georgia and east Florida were combined to avoid violation of confidentiality of the landings.

Table 6. Percent increases in monthly landings for various commercial snowy grouper trip limits under **all the alternatives considered** in **Action 3**. The current trip limit is 100 lbs gw.

Month	**Trip Limit**			
	150 lbs gw	**200 lbs gw**	**250 lbs gw**	**300 lbs gw**
Jan	27.1	56.9	87.0	117.2
Feb	29.0	58.6	88.3	118.0
Mar	26.6	55.3	84.5	113.6
Apr	36.1	72.2	108.3	144.4
May	35.7	71.6	107.5	143.4
Jun	34.2	70.3	106.5	142.7
Jul	30.3	61.5	92.8	124.1
Aug	27.3	54.3	81.7	109.5
Sep	31.7	63.8	96.2	128.9
Oct	32.1	65.6	100.1	135.2
Nov	28.5	58.9	90.0	121.2
Dec	31.9	67.0	102.0	137.3

A split in the ACL (**Alternatives 2** and **3**) could provide long-term economic benefits because it would help spread harvest throughout a greater portion of the year and maintain market demand. However, as no commercial closure is expected in season 1 for most of the scenarios examined, the effect of splitting the commercial into ACL into two seasonal quotas

would not be much different than leaving the fishing season intact (**Alternative 1 No Action**). Commercial trip limits, in general, are not economically efficient because they limit vessels from benefiting from economies of scale. They have a tendency to increase some fishing trip costs when a trip must stop targeting a specific species because its trip limit has been reached. Unless a vessel that has reached its limit of the targeted fish can easily switch to targeting a different species on the same trip, trip costs associated with the species where the limit has been reached will increase because it will require more annual trips by vessels to catch the ACL. Depending on vessel characteristics and the distance required to travel to fish, a trip limit that is too low could result in targeted trips being cancelled altogether if the vessel cannot target other species on the same trip. In summary, economic benefits under **Alternatives 2** and **3** are expected to exceed those under **Alternative 1 (No Action)** and enhance the ability to better maintain seafood supply and thus increase profitability. The economic effects resulting from **Alternatives 4** and **5** compared to **Alternative 1 (No Action)** are distributional and cannot be ranked because the benefits of trip limits depend on where a vessel is docked and the vessel's cost structure, for which no data exist.

The potential social effects of establishing a split season and changing the trip limit for snowy grouper would depend on the costs and benefits of trade-offs of these management measures. In general, a split season (**Alternatives 2** and **3**) would be most beneficial to fishermen in the northern part of the region and for fishermen targeting other species in the beginning of the year, because it would ensure that a portion of the commercial ACL will be available later in the year. For changes in the trip limit, the potential social effects would depend on how fishermen are affected by either higher trip limits and a shorter season, or lower trip limits and longer seasons. It is likely that higher trip limits would be most beneficial to larger vessels, vessels with longer travel times to fishing grounds (see **Table 7**), and to fishing businesses that target multiple species and do not need one particular species to be open all the time. Conversely, a lower trip limit would likely be more beneficial to smaller vessels, vessels with shorter travel times to fishing grounds (see **Table 7**), and fishing businesses that would benefit from a longer season for snowy grouper.

Currently, there is no split season for the commercial sector for snowy grouper (**Alternative 1, No Action**). **Alternative 1** (**No Action)** would have fewer administrative impacts than **Alternatives 2** and **3** because only one quota would need to be monitored. **Alternatives 2** and **3** would add to the administrative burden in the form of cost, time, or law enforcement efforts. Because there is already a trip limit in place, there would be no difference in the administrative impacts of **Alternative 1 (No Action)** and **Alternatives 2** through **5** and their sub-alternatives. Higher trip limits could have greater administrative effects because they increase the likelihood that the commercial ACL or quota would be met and a commercial closure would occur. **Alternatives 2** through **5** (including their respective sub-alternatives) would require notifying the commercial snapper grouper fishery and law enforcement personnel of an impending trip limit change for snowy grouper. However, this type of administrative burden is considered routine, and the overall administrative effects of the alternatives considered under this action would not vary much with respect to each other.

Table 7. Estimated travel distances (miles) from select ports/inlets/locations from North Carolina through Florida to approximated depths of 200, 300, 330, 600, and 650 feet.

Location off North Carolina	Distance to Approx. 200ft	Distance to Approx. 300ft	Distance to Approx. 330ft	Distance to Approx. 500ft	Distance to Approx. 650ft
Oregon Inlet	34.2	38.2	38.8	40.3	40.4
Ocracoke	31.7	32.1	32.4	33.8	35.2
Morehead City	41.1	45.2	45.7	46.9	48.3
New River	64.1	66.3	66.6	68	70.1
Southport	57.6	61.8	62	62.5	64.6
Location off South Carolina	Distance to Approx. 200ft	Distance to Approx. 300ft	Distance to Approx. 330ft	Distance to Approx. 500ft	Distance to Approx. 650ft
Little River	70.3	71.8	72.2	76	79.1
Georgetown	54.2	55.7	56	57.6	66.9
Charleston	53.9	57.5	58.9	62.7	65.3
Hilton Head	68.7	75.6	76.3	79.2	81.2
Location off Georgia	Distance to Approx. 200ft	Distance to Approx. 300ft	Distance to Approx. 330ft	Distance to Approx. 500ft	Distance to Approx. 650ft
Savannah	73.3	77.8	78.4	80.9	83.1
St. Catherines	81.8	83.3	83.9	85.5	87.5
St. Simons	80.2	81.4	82.1	83.4	85.6
Fernandina	75	76.1	76.5	77.8	79
Jacksonville	68.1	69.6	70	71.4	72
Location off NE Florida	Distance (mi.) to Approx. 200ft	Distance (mi.) to Approx. 300ft	Distance (mi.) to Approx. 330ft	Distance (mi.) to Approx. 500ft	Distance (mi.) to Approx. 650ft
Ft. Pierce	18.4	23.4	24.7	26.3	27.6
Sebastian	25.5	31	32.7	34	35.4
Melbourne	32.3	36.8	38.1	40	43
New Smyrna	42.4	46.6	47.3	49.2	51.6
St. Augustine	59.2	60.7	61.1	62.3	63.3
Location off Fl Keys	Distance to Approx. 200ft	Distance to Approx. 300ft	Distance to Approx. 330ft	Distance to Approx. 500ft	Distance to Approx. 650ft
Key Largo	7.6	9.2	10.1	12.4	14.5
Islamorada	5.9	7.5	8.3	11.9	15.2
Marathon	6.4	7.6	8	9.7	16.8
Key West	6.9	7.9	8.3	10.3	13.8

Source: Roger Pugliese, SAFMC Staff, prepared 2/6/14.

Action 4. Modify the Recreational Bag Limit for Snowy Grouper

(Note: The Accountability Measures (AMs) are being addressed in the Generic Accountability Measure/Dolphin Allocation Amendment.)

Preferred Alternative 1. (No Action.) The current recreational grouper bag and possession limit is as follows:

> Grouper and tilefish, combined--3. Within the 3-fish aggregate bag limit: No more than one fish may be gag or black grouper, combined; no more than one fish per vessel may be a snowy grouper; no more than one fish may be a golden tilefish; and no goliath grouper or Nassau grouper may be retained.

Alternative 2. Modify the recreational snowy grouper bag limit from 1/vessel/day to 1/vessel/day May through August and no retention during the remainder of the year.

Alternative 3. Modify the recreational snowy grouper bag limit from 1/vessel/day year round to 1/vessel/day during May and June with no retention during the rest of the year

Alternative 4. Modify the recreational snowy grouper bag limit from 1/vessel/day year round to 1/vessel/day during May with no retention during the remainder of the year.

Alternative 5. Modify the recreational snowy grouper bag limit from 1/vessel/day year round to 1/vessel/day during June with no retention during the remainder of the year.

COMMITTEE ACTION:

OPTION 1. APPROVE ALTERNATIVE X UNDER ACTION 5 AS THE PREFERRED ALTERNATIVE.

OPTION 2. OTHERS???

Summary of Effects

The biological benefits of the **Alternatives 2** through **5** would be expected to be greater than **Preferred Alternative 1 (No Action)**, if they restrict the time during which recreational harvest of snowy grouper could occur. Thus, with respect to **Preferred Alternative 1 (No Action)**, the biological benefits of **Alternatives 2-5** would be significant if targeting of snowy grouper and co-occurring species was reduced during the time when recreational harvest of snowy grouper was prohibited. However, release mortality of snowy grouper is 100%. If targeting of co-occurring species were to continue during a recreational closure, the biological benefits for snowy grouper might not be significant because snowy grouper would still be caught, and discarded dead.

Preferred Alternative 1 (No Action) would provide the least biological benefit since the recreational ACL has been exceeded by 400% in the recent years under the status quo. The ACL was exceeded in 2013, in part, because recreational fishing did not stop after the recreational sector had been closed. **Alternatives 4** and **5** would be expected to have greater biological benefits than **Alternatives 2** and **3**, since they would allow recreational harvest of snowy grouper for just one month versus two months under **Alternative 3** and four months under **Alternative 2**. However, the biological effects of **Alternatives 1 (Preferred)-5** would be similar if a recreational closure does not slow the rate of fishing.

If any of the alternatives under **Action 5** is chosen, other than **Preferred Alternative 1 (No Action),** and it is effective in maintaining recreational landings at or below the ACL, short-term economic benefits to the recreational sector would be lower relative to those being achieved right now. This is because, in recent years, the ACL has been exceeded by such a large amount. Although, these economic benefits would be greater than those that would occur under a situation where there is no increase in the ACL (**Alternative 1** under **Action 2**). That is, the recreational sector would benefit in the long-term from **Alternatives 2, 3, 4,** or **5** if they are effective. The short-term benefits would vary depending on whether an increase in the ACL occurs under **Action 2**.

In general, the social effects of modifying the snowy grouper bag limit or specifying when snowy grouper can be recreationally landed would be associated with the biological costs of each alternative (see **Section 4.4.1**), the times of year recreational anglers are targeting snowy grouper, and how a designated recreational fishing season would affect current recreational fishing opportunities. A longer fishing season would improve recreational fishing opportunities, and would be the longest under **Preferred Alternative 1 (No Action)**, followed a three-month season under **Alternative 2**, and a two-month season under **Alternative 3**. The one-month season under **Alternatives 4** and **5** would result in the fewest opportunities for recreational fishing of snowy grouper. Because most recreational landings of snowy grouper are estimated to occur in May/June (**Table 8**), particularly landings in Monroe County (**Table 8**), allowing harvest during these months as under **Alternatives 1 (Preferred)-5** would be beneficial to recreational fishermen targeting snowy grouper.

Table 8. Recreational landings (numbers of fish) by wave (two-month intervals) of snowy grouper in the South Atlantic. Snowy grouper landings with (Total SA Landings) and without (Current SA Landings) landings from Monroe County are included. Specific Monroe County Headboat landings were not provided to protect confidentiality of the data.

Year	Source	Jan/Feb	Mar/Apr	May/June	July/Aug	Sept/Oct	Nov/Dec	Total
2012	MRFSS	0	0	1,039	644	322	0	2,005
	Headboat	2	1	10	7	8	32	60
	Current SA Landings	2	1	1,049	651	330	32	2,065
	Monroe MRFSS	0	82	15,200	0	0	0	15,282
	Monroe Headboat	0	0	0	<10	0	<10	<20
	Total SA Landings	2	83	16,249	661	330	42	17,367
2013	MRFSS	67	226	107	330	972	0	1,701
	Headboat	10	12	5	0	360	62	449
	Current SA Landings	77	238	112	330	1,332	62	2,150
	Monroe MRFSS	0	0	1,247	0	0	0	1,247
	Monroe Headboat	0	0	0	0	<400	<100	<500
	Total SA Landings	77	238	1,359	330	1,732	162	3,897

COMMITTEE ACTION:

OPTION 1. APPROVE REGULATORY AMENDMENT 20 FOR FORMAL REVIEW

OPTION 2. DEEM THE CODIFIED TEXT AS NECESSARY AND APPROPRIATE

OPTION 3. GIVE THE COUNCIL CHAIR AND COUNCIL STAFF EDITORIAL LICENSE TO MAKE CHANGES TO THE AMENDMENT DOCUMENT AS NEEDED PRIOR TO SUBMISSION

OPTION 4. OTHERS??