Regulatory Amendment 22 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region

DECISION DOCUMENT

Revise the annual catch limits (ACLs), and optimum yield (OY) for gag and wreckfish and revise management measures for gag

SEPTEMBER 2014

Purpose and Need

NOTE: Council needs to approve P & N in September. If the Council choses to also modify the composition of the aggregate grouper bag limit, the P & N statement would be revised accordingly.

Purpose for Actions

The purpose for the actions is to: (1) adopt the Scientific and Statistical Committee's (SSC) recommendations for the acceptable biological catch (ABC) for the gag and wreckfish components of the snapper grouper fishery, (2) adjust annual catch limits (ACL), and optimum yield (OY) for gag and wreckfish based on the SSC's ABC recommendations; and (3) modify the recreational bag limit for gag.

Proposed edit: The purpose for the actions is to adjust annual catch limits (ACL), and optimum yield (OY) for gag and wreckfish and modify the recreational bag limit for gag.

The Regional NEPA coordinator suggests the following changes to the Purpose because he stated that "One problem we have encountered with saying we will use the SSC's recommendation is that the SSC may not have analyzed a reasonable range of alternatives, which is imperative under NEPA."

Need for Actions

The *need* for the proposed actions is to: (1) address the recent stock assessment results for gag and wreckfish and prevent overfishing while minimizing, to the extent practicable, adverse social and economic effects; and (2) ensure that OY is being achieved by increasing the bag limit for gag thus imparting socio-economic benefits to resource users.

COMMITTEE ACTION:

OPTION 1. ACCEPT THE IPT'S PROPOSED WORDING FOR 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???

Proposed Actions and Alternatives

Action 1. Revise the annual catch limits (ACL) and optimum yield (OY) for gag

Alternative 1 (No Action). ~~Do not revise annual catch limits (ACL) and optimum yield (OY) for gag.~~ Retain the current annual catch limits (ACL) and optimum yield (OY) for gag. Optimum Yield (OY) ~~equals~~ will remain equal to the yield produced by F_{OY} (Amendment 16). If a stock is overfished, F_{OY} ~~equals~~ remains equal to the fishing mortality rate specified by the rebuilding plan designed to rebuild the stock to SSB_{MSY} within the approved schedule. After the stock is rebuilt, F_{OY} = a fraction of F_{MSY}. ABC = 805,000 pounds gutted weight (lbs gw; landings only); OFL = Yield at F_{MSY} = 903,000 lbs gw. The total ACL (Yield at 75%F_{MSY}) ~~is~~ will continue to be 694,000 lbs gw. Commercial and recreational allocations ~~are~~ will continue to be 51% and 49%, respectively. The directed commercial ACL ~~is~~ will continue to be 326,722 lbs gw (reduced from 353,940 lbs gw commercial ACL to account for gag discard mortality from commercial trips that target co-occurring species (i.e., red grouper and scamp) during a gag closure). The recreational ACL ~~is~~ will continue to be 340,060 lbs gw. Currently, there are no ACTs for gag.

ABC	ACL (yield at 75% F_{MSY})	Commercial ACL (51%)	Directed Commercial Quota*	Recreational ACL (49%)
805,000	694,000	353,940	326,722	340,060

All values in pounds gutted weight (lbs gw)
*Directed commercial quota = Commercial ACL – 27,218 lbs gw.

Preferred Alternative 2. ACL = OY = ABC projected landings from 2015-2019 with P*=0.3. The ACL for 2019 will remain in place until modified.

Year	ABC	Total ACL	Commercial ACL (51%)	Directed Commercial Quota*	Recreational ACL (49%)
2015	666,000	666,000	339,660	312,442	326,340
2016	671,000	671,000	342,210	314,992	328,790
2017	713,000	713,000	363,630	336,412	349,370
2018	748,000	748,000	381,480	354,262	366,520
2019	773,000	773,000	394,230	367,012	378,770

All values in pounds gutted weight (lbs gw)

*Directed commercial quota = Commercial ACL – 27,218 lbs gw.

Discussion:
The commercial ACL needs to be reduced by 27,218 pounds gutted weight (lbs gw) to account for discard mortality after commercial harvest for gag closes but commercial harvest for shallow water groupers remains open. The assessment goes through 2012, before regulations were changed in 2013 to remove the accountability measure that prohibited harvest of all shallow water groupers (red grouper, black grouper, scamp, yellowmouth grouper, yellowfin grouper, red hind, rock hind, graysby, and coney) once the commercial ACL for gag was met. When the next assessment is conducted, these discards will be included in the discard estimate from the assessment.

Alternative 3. ACL = OY = 0.95*Proposed ABC. The ACL for 2019 would remain in place until modified.

Year	ABC	Total ACL	Commercial ACL (51%)	Directed Commercial Quota*	Recreational ACL (49%)
2015	666,000	632,700	322,677	295,459	310,023
2016	671,000	637,450	325,100	297,882	312,351
2017	713,000	677,350	345,449	318,231	331,902
2018	748,000	710,600	362,406	335,188	348,194
2019	773,000	734,350	374,519	347,301	359,832

All values in lbs gw
*Directed commercial quota = Commercial ACL – 27,218 lbs gw.

Alternative 4. ACL = OY = 0.90*Proposed ABC. The ACL for 2019 would remain in place until modified.

Year	ABC	Total ACL	Commercial ACL (51%)	Directed Commercial Quota*	Recreational ACL (49%)
2015	666,000	599,400	305,694	278,476	293,706
2016	671,000	603,900	307,989	280,771	295,911
2017	713,000	641,700	327,267	300,049	314,433
2018	748,000	673,200	343,332	316,114	329,868
2019	773,000	695,700	354,807	327,589	340,893

All values in lbs gw
*Directed commercial quota = Commercial ACL – 27,218 lbs gw.

Alternative 5. ACL = OY = 0.80*Proposed ABC. The ACL for 2019 would remain in place until modified.

Year	ABC	Total ACL	Commercial ACL (51%)	Directed Commercial Quota*	Recreational ACL (49%)
2015	666,000	532,800	271,728	244,510	261,072
2016	671,000	536,800	273,768	246,550	263,032
2017	713,000	570,400	290,904	263,686	279,496
2018	748,000	598,400	305,184	277,966	293,216
2019	773,000	618,400	315,384	288,166	303,016

All values in lbs gw
*Directed commercial quota = Commercial ACL – 27,218 lbs gw.

COMMITTEE ACTION:

OPTION 1. ACCEPT THE IPT'S PROPOSED CHANGES TO THE WORDING OF THE ALTERNATIVES UNDER ACTION 1.

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

OPTION 3. OTHERS?

Preliminary Summary of Effects

Biological

Retaining the ACL and optimum yield (OY) specified in **Alternative 1 (No Action)** would not update harvest parameters for gag using the best available scientific information from the recent stock assessment update. Furthermore, the ACL from **Alternative 1 (No Action)** is higher than that proposed under **Alternatives 2 (Preferred)-5**, which could result in overfishing and could have adverse biological effects on the gag stock**. Alternatives 2 (Preferred)** through **Alternative 5** would update the ACL and OY for gag based upon results from the updated gag assessment, and recommendations from the South Atlantic Council's SSC, and have a greater positive biological effect on the stock by reducing the commercial and recreational ACLs.

Alternatives 2 (Preferred)-5 would set OY equal to the ACL. National Standard 1 (NS1) establishes the relationship between conservation and management measures, preventing

overfishing, and achieving OY from each stock, stock complex, or fishery. The NS1 guidelines discuss the relationship of OFL to the MSY and ACL to OY. The OFL is an annual amount of catch that corresponds to the estimate of maximum fishing mortality threshold applied to a stock; MSY is the long-term average of such catches. The ACL is the limit that triggers AMs and is the management target for the species. Management measures for a fishery should, on an annual basis, prevent the ACL from being exceeded. The long-term objective is to achieve OY through annual achievement of an ACL. The NS1 guidelines state that if OY is set close to MSY, the conservation and management measures in the fishery must have very good control of the amount of catch in order to achieve the OY without overfishing.

Alternative 2 (Preferred) would set the ACL equal to the ABC (**Table 1**). The NS1 guidelines indicate the ACL may typically be set very close to the ABC. **Alternatives 3, 4,** and **5** would have a greater positive biological effect than **Alternative 1 (No Action)** and **Preferred Alternative 2** because they would create a buffer between the ACL/OY and the ABC, with **Alternative 5** setting the most conservative ACL at 80% of the ABC (**Tables 1-4**). Creating a buffer between the ACL/OY and ABC would provide greater assurance that overfishing is prevented and the long-term average biomass is near or above the biomass associated with MSY. Setting a buffer between the ACL and ABC would be appropriate in situations where there is uncertainty in whether or not management measures are constraining fishing mortality to target levels. However, although **Alternatives 2 (Preferred)** through **5** would achieve OY by setting ACL equal to OY, there may not be a biological need to set the ACL below the ABC, if scientific and management uncertainty are accounted for.

Table 1. ABC and ACLs for gag specified under **Alternative 2 (Preferred)** where ACL = OY = ABC.

Year	ABC	Total ACL	Commercial ACL (51%)	Directed Commercial Quota*	Recreational ACL (49%)
2015	666,000	666,000	339,660	312,442	326,340
2016	671,000	671,000	342,210	314,992	328,790
2017	713,000	713,000	363,630	336,412	349,370
2018	748,000	748,000	381,480	354,262	366,520
2019	773,000	773,000	394,230	367,012	378,770

All values in pounds gutted weight (lbs gw)
*Directed commercial quota = Commercial ACL – 27,218 lbs gw.

Table 2. ABC and ACLs for gag specified under Alternative 3 where ACL = OY = 95%ABC.

Year	ABC	Total ACL	Commercial ACL (51%)	Directed Commercial Quota*	Recreational ACL (49%)
2015	666,000	632,700	322,677	295,459	310,023
2016	671,000	637,450	325,100	297,882	312,351
2017	713,000	677,350	345,449	318,231	331,902
2018	748,000	710,600	362,406	335,188	348,194

2019	773,000	734,350	374,519	347,301	359,832

All values in lbs gw
*Directed commercial quota = Commercial ACL – 27,218 lbs gw.

Table 3. ABC and ACLs for gag specified under Alternative 4 where ACL = OY = 90%ABC.

Year	ABC	Total ACL	Commercial ACL (51%)	Directed Commercial Quota*	Recreational ACL (49%)
2015	666,000	599,400	305,694	278,476	293,706
2016	671,000	603,900	307,989	280,771	295,911
2017	713,000	641,700	327,267	300,049	314,433
2018	748,000	673,200	343,332	316,114	329,868
2019	773,000	695,700	354,807	327,589	340,893

All values in lbs gw
*Directed commercial quota = Commercial ACL – 27,218 lbs gw.

Table 4. ABC and ACLs for gag specified under Alternative 5 where ACL = OY = 80%ABC.

Year	ABC	Total ACL	Commercial ACL (51%)	Directed Commercial Quota*	Recreational ACL (49%)
2015	666,000	532,800	271,728	244,510	261,072
2016	671,000	536,800	273,768	246,550	263,032
2017	713,000	570,400	290,904	263,686	279,496
2018	748,000	598,400	305,184	277,966	293,216
2019	773,000	618,400	315,384	288,166	303,016

All values in lbs gw
*Directed commercial quota = Commercial ACL – 27,218 lbs gw.

Economic

Whenever ACLs are changed, economic effects can be expected if the changes are expected to have an effect on the number of fish or trips that can or will be taken by a sector. When a sector's ACL is decreased, it can be expected that there would be negative direct effects for the commercial sector in that fewer trips would be taken. When the recreational sector ACL is reduced, the overall consumer surplus is reduced in those years. **Preferred Alternative 2** has the ACL lower in 2015 and 2016 compared to **Alternative 1 (No Action)**. The ACL specified in **Alternative 3** is lower in 2015, 2016, and 2017 than the ACL identified in **Alternative 1 (No Action)**. The ACL identified in **Alternative 4** is lower in 2015 through 2018 when compared to the ACL specified in **Alternative 1 (No Action)**. The ACL in **Alternative 5** is lower during 2015 through 2019 that the status quo ACL (**Alternative 1 No Action)**. In years where there would not be a direct negative effect of the ACL changes, there could be expected to be at least modest positive economic effects. Compared to **Alternative 1 (No Action)**, in order of least to most negative direct economic effects for the commercial sector over time or least to most

decrease in the consumer surplus for the recreational sector over time are **Preferred Alternative 2**, **Alternative 3**, **Alternative 4**, and **Alternative 5**.

Social

Gag is an important component to the commercial species landed in several North Carolina and South Carolina communities, in addition to potentially being an important recreational species. Changes to the ACL and access to the resource could affect individuals and businesses in these communities.

In general, the higher the ACL, the greater the short-term social and economic benefits that would be expected to accrue, assuming harvest does not result in overfishing and long-term management goals are met. Adhering to sustainable harvest through an ACL is assumed to result in net long-term positive social and economic benefits. **Alternative 1 (No Action)**, which specifies an ACL higher than the SSC's catch level recommendation, could be expected to be the most beneficial for fishermen in 2015 and 2016 unless it results in overfishing. **Alternative 1 (No Action),** however, would result in an ACL that is higher than the ABC recommended by the South Atlantic Council's SSC and hence not sustainable. However, the increase in the ACL during 2017-2019 under **Preferred Alternative 2** would likely result in greater social benefits for the commercial and recreational fleets than **Alternative 1 (No Action)**. Incorporating a buffer between ABC and ACL under **Alternatives 3-5**, and decreasing the available quota for gag could have negative effects on fishermen and communities if access to the gag resource is restricted due to triggering AMs if landings reach the ACL.

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. **Alternatives 2 (Preferred)-5** would incorporate new information and recommendations, and would be more beneficial in the long term to communities and fishermen than **Alternative 1 (No Action)**.

Action 2. Revise the composition of the aggregate grouper bag limit, and establish a recreational bag limit for gag

Option for re-wording Action 2: Revise the composition and modify the aggregate grouper bag limit, and establish a recreational bag limit for gag

Alternative 1 (No Action). Retain the current aggregate grouper bag limit ~~is~~ of 3 fish. Within this limit, only one fish can be a gag or black grouper.

Aggregate grouper bag limit includes:	Gag*, black grouper*, golden tilefish**, snowy grouper***, misty grouper, red grouper, scamp, yellowedge grouper, yellowfin grouper, yellowmouth grouper, blueline tilefish, sand tilefish, coney, graysby, red hind, and rock hind
*	Maximum of 1 gag OR black grouper (but not both) per person/day
**	Maximum of 1 golden tilefish per person/day
***	Maximum of 1 snowy grouper per vessel/day

Alternative 2. Revise the composition of the aggregate grouper bag limit by removing gag and specify the recreational gag bag limit.

Select one as preferred:

Sub-alternative 2a. Specify the gag bag limit of 2 per person per day

Sub-alternative 2b. Specify the gag bag limit of 3 per person per day

Select as preferred if also revising the aggregate grouper bag limit:

Sub-alternative 2c. Specify an aggregate bag limit of 2 per person per day

Alternatives	1	2a	2b	2c
Aggregate grouper bag Limit	3 fish Includes gag	3 fish/No gag	3 fish/No gag	2 fish/No gag
Recreational Gag Bag Limit	N/A	2 fish	3 fish	2 or 3 (depending on if 2a or 2b was chosen)

COMMITTEE ACTION:

OPTION 1. ACCEPT THE IPT'S PROPOSED CHANGES TO THE WORDING OF ACTION 2.

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

OPTION 3. OTHERS?

COMMITTEE ACTION:

OPTION 1. ACCEPT THE IPT'S PROPOSED WORDING FOR ALTERNATIVE 2 SUB-ALTERNATIVES

OPTION 2. MODIFY THE IPT'S PROPOSED WORDING FOR ALTERNATIVE 2 SUB-ALTERNATIVES (COMMITTEE/COUNCIL TO SPECIFY CHANGES) AND APPROVE.

OPTION 3. OTHERS?

COMMITTEE ACTION:

OPTION 1. SELECT ALTERNATIVE 1 AS PREFERRED

OPTION 2. SELECT ALTERNATIVE 2, SUBALTERNATIVE 2X, AS PREFERRED

OPTION 3. OTHERS??

Preliminary Summary of Effects

Biological

The bag limit analysis proposed in **Alternative 2** was compiled using trip level recreational data. Headboat Survey (HBS) catch-effort data were calculated on a monthly basis, while Marine Recreational Information Program (MRIP) catch-effort data, which were subsetted by mode, were calculated on a per wave basis. Waves were then split proportionally into months for projected landings analyses. The catch-effort data used 2012 and 2013 data, as 2010 and 2011 were statistically greater within the HBS data. Due to low sample sizes (<30 fish per month) in the MRIP catch-effort data for charter and private modes, samples were aggregated across all months in 2012 and 2013 to calculate aggregated annual bag limit increases. The increased bag limits were calculated as follows: if less than 1 gag per angler was caught, there was no increase in the catch. If greater than or equal to 1 gag per angler was caught, the total number of fish was increased to 2 or 3, respectively, for each bag limit analysis. Note that these bag limits represent the upper bounds or maximum increases that could be expected if anglers that successfully reached their limit historically also reach their limit under the new bag limits. Landings data were based on 2013 landings, and compiled by mode and wave, with waves then proportionally split into months for MRIP data (**Table 5**), while HBS data were compiled by month (**Table 6**).

Table 5. Number of trips and landings (number of fish) under Alternative 1 (No Action) by month for Headboat Survey data.

	2012		2013	
Month	**Trips**	**Landings**	**Trips**	**Landings**
1	122	3	105	10
2	145	0	101	2
3	251	3	93	4
4	301	0	87	1
5	298	435	167	208
6	347	803	193	288
7	202	263	157	254
8	159	189	153	245
9	135	160	94	121
10	108	109	88	115
11	100	44	39	60
12	149	80	72	72

Table 6. Number of trips and landings (number of fish) under Alternative 1 (No Action) by wave for MRIP data.

	Private				Charter			
Wave	**2012**		**2013**		**2012**		**2013**	
	Trips	Landings	Trips	Landings	Trips	Landings	Trips	Landings
1	9	0	12	0	21	0	20	0
2	13	0	5	0	19	0	2	0
3	23	13	16	12	12	9	6	11
4	21	9	11	6	6	8	3	1
5	28	11	8	2	12	7.2	2	0
6	15	6	5	0	10	1	6	0

The final model assumed zero landings from January through April, due to the Shallow Water Grouper spawning closure during that time. Due to low sample sizes, data were combined across all waves and years for MRIP data to calculate the estimated percentage increase from the new bag limits. The final model projects the landings, percentage of recreational ACL, projected closure date, and days open for each of the proposed recreational ACLs in **Action 1** for the status quo (equivalent to a bag limit of 1), 2 gag bag limit, and 3 gag bag limit (**Table 7**).

Table 7. Projected landings of gag (lbs gw) under proposed bag limits.

ACL	Bag Limit	Projected			
		Closure date	Days Open*	Landings	% ACL
ACL = ABC: 326,340 lb gw	Status Quo	12/31	245	98,582	30%
	Gag Bag limit = 2			133,587	41%
	Gag Bag limit = 3			168,592	52%
ACL = 95%ABC: 310,023 lb gw	Status Quo	12/31	245	98,582	32%
	Gag Bag limit = 2			133,587	43%
	Gag Bag limit = 3			168,592	54%
ACL = 90%ABC 293,706 lb gw	Status Quo	12/31	245	98,582	34%
	Gag Bag limit = 2			133,587	45%
	Gag Bag limit = 3			168,592	57%
ACL = 80%ABC 261,072 lb gw	Status Quo	12/31	245	98,582	38%
	Gag Bag limit = 2			133,587	51%
	Gag Bag limit = 3			168,592	65%

*120 days correspond to the 4-month spawning season closure

Tables 8 and **9** show that between 31% and 53% of the trips that reported catching a species included in the aggregate bag limit, actually landed an aggregate species. The catch per angler (CPA) for all aggregate trips was less than one for both the MRIP and HBS datasets. When adjusting for positive trips, CPA increases, but is still less than one. Only five percent of trips caught the aggregate bag limit. This low CPA indicates that fishermen are either not encountering the fish in the aggregate or are discarding the fish due to regulations other than the bag limit (e.g. spawning season closures, size limits). The percentage of trips catching aggregate species that landed gag was between 7% and 19% for MRIP trips and 15-24% for HBS trips. Average CPA for gag was less than 0.1, and the CPA for positive gag trips averaged 0.47 for MRIP trips and 0.13 for HBS trips. Trips landing black grouper were fewer than those landing gag and had lower CPAs than gag. The percentage of aggregate trips that landed gag and/or black grouper was also low (MRIP trips: 11-23%, HBS trips: 18-29%). The percentage of trips where the CPA for gag and black grouper was less than one was also low (MRIP: < 3%, HBS: <1%). Only 2 MRIP trips reported catching both black grouper and gag, while 13-28 HBS trips (<1%) caught both species. The low CPA for gag and/or black grouper trips indicates that it is unlikely that the removal of gag would have a considerable effect on black grouper landings.

Overall, from 2009-2013, the top five aggregate species landed for MRIP trips were: blueline tilefish, red grouper, gag, scamp, and snowy grouper. In 2012 and 2013, black grouper replaced snowy grouper as the fifth most commonly caught species. The top five species landed for HBS trips from 2009-2013 were blueline tilefish, scamp, gag, red grouper, and sand tilefish. In 2009 and 2011, rock hind replaced sand tilefish as the fifth most commonly caught species. The species listed above are the species most likely to show an increase in landings if gag is removed and the aggregate grouper bag limit remains at 3 fish, although the low gag CPA would indicate that any increase in landings is highly unlikely, as the current bag limit is frequently not met.

Table 8. Number of trips that caught a species in aggregate grouper bag limit and the average catch per angler per trip (CPA) by year from the MRIP data.

	2009	2010	2011	2012	2013
Trips that caught an aggregate fish	145	448	278	446	359
Positive aggregate trips (landed an aggregate fish)	72	139	96	167	118
Trips that caught CPA ≥ 3	3	8	5	16	12
Average aggregate CPA (max = 3)	0.45	0.29	0.29	0.34	0.33
Average aggregate CPA, positive trips (max = 3)	0.90	0.92	0.84	0.90	1.0
Trips that landed gag	27	38	28	52	24
% aggregate trips that landed gag	19%	8%	10%	12%	7%
Average gag CPA (max = 1)	0.07	0.05	0.05	0.05	0.03
Average gag CPA, positive trips (max = 1)	0.40	0.53	0.50	0.43	0.47
Trips landed black grouper	6	11	7	18	16
% all aggregate trips that landed black grouper	4%	2%	3%	4%	4%
Average black grouper CPA (max = 1)	0.03	0.01	0.02	0.02	0.02
Average black grouper CPA, positive trips (max = 1)	0.65	0.33	0.78	0.46	0.43
Trips landed gag and/or black grouper	33	48	35	69	40
% all aggregate trips that landed gag and/or black grouper	23%	11%	13%	15%	11%
Trips where gag and black grouper CPA ≥ 1	3	10	8	13	6
Trips landing both gag and black grouper	0	1	0	1	0
Average black grouper and gag CPA	0.10	0.05	0.07	0.07	0.05
Average black grouper and gag CPA, positive trips	0.44	0.50	0.56	0.45	0.45

Table 9. Number of trips that caught a species in aggregate grouper bag limit and the average catch per angler per trip (CPA) by year from the HBS data.

	2009	2010	2011	2012	2013
Trips that caught an aggregate fish	4967	4916	3772	4572	4423
Positive aggregate trips (landed an aggregate fish)	2583	2344	1988	1926	2007
Trips that caught CPA ≥ 3	23	12	32	47	20
Average aggregate CPA (max = 3)	0.13	0.13	0.16	0.13	0.12
Average aggregate CPA, positive trips (max = 3)	0.24	0.28	0.31	0.30	0.27
Trips that landed gag	1177	1122	922	674	663
% aggregate trips that landed gag	24%	23%	24%	15%	15%
Average gag CPA (max = 1)	0.03	0.03	0.03	0.02	0.02
Average gag CPA, positive trips (max = 1)	0.12	0.14	0.14	0.13	0.10
Trips landed black grouper	138	138	176	163	240
% all aggregate trips that landed black grouper	3%	3%	5%	4%	5%
Average black grouper CPA (max = 1)	0.003	0.003	0.006	0.004	0.007
Average black grouper CPA, positive trips (max = 1)	0.10	0.12	0.13	0.12	0.13

Trips landed gag and/or black grouper	1293	1240	1085	823	865
% all aggregate trips that landed gag and/or black grouper	26%	25%	29%	18%	20%
Trips where gag and black grouper CPA ≥ 1	18	19	15	20	6
Trips landing both gag and black grouper	22	20	13	14	38
Average black grouper and gag CPA	0.03	0.04	0.04	0.02	0.02
Average black grouper and gag CPA, positive trips	0.12	0.14	0.14	0.13	0.11

The following analysis was prepared by Council staff using MRIP intercept data to complement the analyses presented above and to aid the Council in their discussion and in selecting a preferred alternative.

A bag limit analysis was initially conducted using MRIP intercept data for the most recent 12 months for which complete intercept records were available: Waves 4-6 from 2013 and Waves 1-3 from 2014. The total number of trips, number of anglers, and catch of all species in the current grouper aggregate were pooled by wave to get an overall catch per angler estimate (CPA). However, to increase sample size, an expanded preliminary analysis was conducted which included data from 2010 to 2014. This new analysis does not include data from Monroe County or data from the Headboat sector, and therefore should be considered very preliminary and is only meant to give a general idea of what the trends in recreational catch are. Results from 2010-2014 showed essentially the same trends as the analysis using only the last 12 months. Namely, the catch rate is less than 1 of the species in the grouper aggregate per angler (**Table 10**). It should be noted that even though 4 and a half years have been pooled to try and increase sample sizes for this analysis, the number of intercepts is still very low. A total of 528 trips were intercepted that reported either landing or discarding at least one gag and a total of 1,319 trips were intercepted that reported either landing or discarding at least one fish from the aggregate grouper bag (gag, black, snowy, misty, red, scamp, yellowedge, yellowfin, yellowmouth, blueline tilefish, sand tilefish, golden tilefish, coney, graysby, red hind, and rock hind). Also, all table columns referring to landings, catch, and discards are in numbers of fish and these are numbers of intercepted fish that were landed or discarded. These are not the expanded numbers used to estimate actual landings and discards.

Table 10. Aggregate grouper landings and discards from MRIP Intercepts, 2010-2014.

Wave	A	B1	Landings (A+B1)	B2	Total Catch (A+B1+B2)	Avg CPA
1	88	46	134	298	432	0.20
2	226	14	240	103	343	0.40
3	557	25	582	330	912	0.38
4	281	20	301	307	608	0.31
5	251	29	280	432	712	0.24
6	91	25	116	166	282	0.22
Total	1,493	159	1,652	1,636	3,288	0.30

Landings and discards of gag were examined to determine whether gag made up a significant portion of the catch and to see the percentage of discards that came from trips where either the aggregate grouper bag limit was met or the gag/black grouper bag limit was met (% B2 After Bag of Tot B2, **Table 11**).

Table 11. Gag landings and discards from MRIP intercepts, 2010-2014.

Wave	A	B1	Landings (A+B1)	B2	Total Catch (A+B1+B2)	% Discards of Tot Catch	% B2 After Bag of Tot B2	Avg CP A
1	1	0	1	119	120	99.2%	0.0%	0.01
2	5	0	5	46	51	90.2%	0.0%	0.04
3	88	3	91	151	242	62.3%	5.3%	0.15
4	39	6	45	129	174	74.3%	5.4%	0.13
5	36	10	46	159	205	77.5%	11.3%	0.14
6	8	7	15	77	92	83.7%	1.3%	0.07
Total	177	26	203	681	884	77.0%	5.0%	0.11

Data do not include Monroe County, FL.

Landings were highest in Wave 3 (**Tables 10** and **11**), when effort was also highest overall. However, discards of gag (B2) were fairly high (in comparison to the landings), consistent across all waves, and made up a large percentage of the overall catch of gag during most of the year (**Table 11**). Gag discards made up a large portion of the total encounters of gag. Discards of gag ranged from 62% in Wave 3 to 99% in Wave 1 (which coincides with the spawning season closure for Shallow Water Groupers, including gag). However, discards of gag were as high as 84% during Wave 6 and 62% during the peak landings Wave (Wave 3). The percentage of gag discards associated with trips that caught either the entire aggregate bag limit or the gag/black limit was small; however, about 5% for Waves 3 and 4, with a maximum of 11% during Wave 6. This suggests that the majority of discards are happening due to the minimum size limit during the open fishing season. On average, over the entire year, fishermen were discarding 81% of the gag they were encountering. A trip by trip analysis was also conducted to determine the percent of trips that were catching the entire aggregate bag limit of 3 fish (% Trips Hit Bag), that of trips reporting 1 gag or 1 black grouper per angler (% Trips Lim Gag/Black), and that of trips that reported discards of gag that also caught one of these two limits (% B2 Gag After Lim) (**Table 12**). The analysis showed that effort for gag is highest in Wave 3, although the percentage of trips reaching either the aggregate bag limit or the gag/black limit is highest in Wave 5. Only about 10% of trips caught the aggregate bag limit and about 14% of trips (within Wave 5) caught the gag/black limit. Overall, for the year, an average of around 7% of trips that encountered gag caught the entire bag limit or limited out on gag/black.

Of the trips that encountered gag and hit either the aggregate bag limit or the gag/black limit, a very high percentage of them also reported discarding at least one gag (**Table 12**). Overall, over 60% of trips discarded a gag after catching the entire aggregate bag limit or the gag/black

limit. However, these discards are a very small portion of the total discards of gag over this time period (about 5%, **Table 11**) and only about 7% of trips that encountered a gag hit one of the two limits (**Table 12**).

Table 12. Trips that encountered gag and the percent that caught the aggregate grouper bag limit, the gag/black grouper limit, either limit, and percent trips that discarded gag which also hit either limit, by wave, for MRIP intercepts, 2010-2014.

Wave	Trips	Anglers	%Trips Hit Bag	% Trips Lim Gag/Black	% Trips Either Limit	% Trips B2 Gag After Lim
1	61	186	0.0%	0.0%	0.0%	NA
2	40	114	0.0%	2.5%	2.5%	0.0%
3	137	597	3.6%	9.5%	9.5%	38.5%
4	98	355	4.1%	5.1%	5.1%	80.0%
5	121	337	9.9%	14.0%	14.0%	76.5%
6	71	203	1.4%	2.8%	2.8%	50.0%
Total	528	1,792	4.2%	11.2%	7.2%	60.5%

Data do not include Monroe County, FL, and only include trips that encountered at least one gag (either landed or discarded).

Table 13 shows the number and percent of trips that caught both the gag/black grouper bag limit and the entire aggregate bag limit and the percentage of the landings of the species in the aggregate bag limit that is made up of gag. On average, only about 4% of the trips caught the gag/black grouper bag limit for the period 2010-2014 and gag made up less than 5% of the landings of species in the aggregate bag limit. These data suggest that gag is not often present in the catch for trips that hit the aggregate grouper bag limit.

Table 13. Trips that caught both the gag/black limit and aggregate grouper bag limit, by wave, and percentage of the landings of the species in the aggregate bag limit made up of gag for MRIP intercepts, 2010-2014.

Wave	Trips	Anglers	Trips Hit Bag & Gag/Black Lim	% Hit Bag & Gag/Black Lim	% Gag in Catch of Agg Groupers
1	186	668	2	1.1%	0.7%
2	125	601	1	0.8%	2.1%
3	339	1,534	11	3.2%	15.7%
4	244	972	9	3.7%	14.8%
5	283	1,160	16	5.7%	16.5%
6	142	519	2	1.4%	13.0%
Total	1,319	5,454	41	3.1%	12.3%

Data do not include Monroe County, FL, and include all trips that encountered at least one species from the aggregate grouper bag.

Based on the preliminary analysis presented here, the current bag limit is not limiting for gag. The amount of gag discards, the fact that so few trips are hitting the aggregate bag limit or

the gag/black grouper bag limit, and the fact that the number of discards on trips that did meet one of the limits is very small in comparison to the total discards of gag suggests that the majority of gag being discarded are undersized. This scenario would suggest that gag are undergoing growth overfishing. Growth overfishing results when fish are harvested at an average size that is smaller than the size that would produce the maximum yield per recruit. The 4-month spawning season closure and the amount of growth overfishing that may be responsible for the recreational sector not meeting their ACL.

Intercept data from 2004-2008 (before the recreational shallow water grouper spawning closure) were examined to determine whether the 4-month spawning season closure was causing the recreational sector to not reach their ACL and to see if the pattern of high rates of discards was also present in the past (**Table 14**). Waves 1 and 2, those that correspond to the current spawning season closure, were found to have the lowest percent intercepts of trips that landed gag of any other wave (about 13% and 12%, respectively). Also, during this time period, Waves 1 and 2 accounted for about 22% of the total landings of gag, on average. So the recreational sector did catch a significant amount of gag during Waves 1 and 2 of the fishing year, but not enough to meet the current ACL.

Table 14 shows that the recreational sector had a very high proportion of gag encounters as discards, although very few trips met the modern aggregate limit or the gag/black grouper bag limit (less than 8% on average) and even fewer trips (4.5%) met the gag/black grouper bag limit at the time. As with the 2010-2014 data, this suggests most of the discarded gag were under the minimum size limit and not due to hitting a limit. This suggests that recreational landings of gag may be low due to a combination of the 4-month closure and the fact that gag over 24 inches total length, the current minimum size limit, are not readily available to the recreational sector.

Table 14. Recreational landings and discards of gag from MRIP Intercepts, 2004-2008.

Wave	A	B1	Landings (A+B1)	B2	Catch (A+B1+B2)	% B2 of Catch	B2 After Lim	
							Num	% of Tot B2
1	63	6	69	183	252	72.7%	6	3.3%
2	53	2	55	137	192	71.3%	4	2.9%
3	135	5	140	154	294	52.4%	12	7.8%
4	69	1	70	126	196	64.1%	18	14.3%
5	105	10	115	272	387	70.2%	35	12.9%
6	116	4	120	341	461	74.0%	19	5.6%
Total	541	28	569	1,213	1,782	68.1%	94	7.7%

As shown in **Table 15**, the percentage of trips hitting the current 3-fish aggregate bag limit (1 gag or black grouper) is low. The percentage of trips that reported 1 gag or 1 black grouper per angler peaked at 10.2% of intercepted trips in Wave 3 and was as low as 3.7% in Wave 1, with a yearly average of 7.5%. The percentage of trips that caught the 3-fish aggregate bag limit peaked at 7.8% in Wave 4 and dipped as low as 1.5% in Wave 1 with a yearly average of 4.2%.

Table 15. Trips that caught the 3-fish grouper aggregate bag limit, the 1 gag/black grouper limit, and gag discards for MRIP Intercepts 2004-2008. These data include all trips that encountered at least 1 gag.

Wave	Trips	Anglers	Hit Agg Bag		Hit Gag/Black Lim		B2 Gag After Hit Bag		Hit Bag and Gag/Black Lim	
			Num	%	Num	%	Num	%	Num	%
1	135	416	2	1.5%	5	3.7%	3	2.2%	2	1.5%
2	125	486	3	2.4%	5	4.0%	3	2.4%	3	2.4%
3	176	1,047	7	4.0%	18	10.2%	8	4.5%	6	3.4%
4	129	665	10	7.8%	12	9.3%	9	7.0%	9	7.0%
5	189	652	10	5.3%	17	9.0%	13	6.9%	10	5.3%
6	214	745	9	4.2%	16	7.5%	8	3.7%	9	4.2%
Total	968	4,011	41	4.2%	73	7.5%	44	4.5%	39	4.0%

Economic

The preliminary bag limit analysis, which takes into account the possible ACLs from **Action 1**, indicates that the entire recreational ACL is not expected to be caught under any of the alternatives of **Action 2**. Allowing recreational fishermen to keep as many fish as possible without exceeding their sector ACL would increase both consumer surplus (CS) for the fishermen, and net operating revenue (NOR) for the for-hire portion of the sector, as applicable. Even under the most restrictive scenario for **Action 1** which is **Alternative 5**, only 65% of the recreational sector ACL would be caught with a 3-fish bag limit (**Action 3, Sub-Alternative 2b**) in an entire fishing year. Under **Alternative 1 (No Action)**, no more than 38% of the recreational sector ACL (**Table 3, bag limit analysis document**) is expected to be caught all year.

Sub-Alternative 2b would provide the highest increase in CS and NOR for the recreational sector, followed by **Sub-Alternative 2a** and lastly **Alternative 1 (No Action)**. **Sub-Alternative 2c** would not affect the recreational sector landings of gag. Potentially, **Sub-alternative 2c** could reduce the landings of the species remaining in the aggregate bag limit.

Social

In general, the social effects of modifying the aggregate bag limit and establishing a bag limit for gag would be associated with the expected biological costs (if any) of each alternative, as well as the effects on current recreational fishing opportunities. The expected effects on recreational fishermen and for-hire businesses under **Alternative 1 (No Action)** and **Alternative 2** would depend on any resulting changes in access to the resource through estimated season length, in addition to opportunities to reach the recreational ACL.

Recreational fishing differs from commercial fishing in that it is generally more focused on the experience rather than landings, and overall benefits to the recreational sector come from increased and/or consistent fishing opportunities. Benefits of management actions that are expected to increase recreational fishing opportunities can come from economic benefits, such as positive effects on the for-hire sector, and also from improved recreational fishing experiences.

The preliminary bag limit analysis shows that the bag limits in **Sub-alternatives 2a** and **2b** would not be expected to shorten the season length under any ACLs proposed in **Action 1**, and it can be assumed that gag fishing opportunities under current conditions would be the same for **Sub-alternatives 2a** and **2b**. However, preliminary analyses also suggest that only a portion of the recreational gag ACL would be reached under the proposed bag limits in **Sub-alternatives 2a** and **2b**. If the management goal is to reach the total ACL for gag, not harvesting a portion of the ACL due to the bag limits could result in foregone benefits to recreational fishermen. Conversely, there are benefits to not harvesting all of the ACL, such as leaving fish for future fishing opportunities in addition to biological benefits of lower removals of gag. Revising the aggregate bag limit to account for removing gag in **Sub-alternative 2c** would likely have minimal effects on recreational fishermen.

Action 3. Revise the annual catch limits (ACL) and optimum yield (OY) for wreckfish, and specify the recreational ACL in numbers of fish

NOTE: If the Council wants the specification of the rec ACL in numbers of fish to be an action item (and have alternatives), then it should be part of the title. If it is not an alternative, then it can be removed from the title and simply be part of the discussion.

Alternative 1 (No Action). Do not revise annual catch limits (ACL) and optimum yield (OY) for wreckfish. The wreckfish ABC=ACL=OY=235,000 pounds whole weight (lbs ww). Commercial and recreational allocations are 95% and 5%, respectively. The commercial ACL is 223,250 lbs ww. The recreational ACL is 11,750 lbs ww. There are no ACTs annual catch targets for wreckfish.

Option to reword Alternative 1 based on Regional NEPA Coordinator's recommendation):
Alternative 1 (No Action). Retain the current annual catch limits (ACL) and optimum yield (OY) for wreckfish. The wreckfish ABC=ACL=OY=235,000 pounds whole weight (lbs ww). Commercial and recreational allocations will remain equal to 95% and 5%, respectively. The commercial ACL will continue to be 223,250 lbs ww. The recreational ACL will continue to be 11,750 lbs ww. Currently, there are no ACTs annual catch targets for wreckfish.

Preferred Alternative 2. ACL = OY = Proposed ABC. The ACL for 2020 would remain in place until modified.

Year	New ABC lbs ww	ACL	Commercial ACL (95%)	Recreational ACL (5%)	Recreational ACL (#s)
2015	433,000	433,000	411,350	21,650	722
2016	423,700	423,700	402,515	21,185	706
2017	414,200	414,200	393,490	20,710	690
2018	406,300	406,300	385,985	20,315	677
2019	396,800	396,800	376,960	19,840	661
2020	389,100	389,100	369,645	19,455	649

All values in pounds whole weight (lbs ww). An average weight of 30 pounds is used to convert the recreational ACL from pounds to number of fish.

Discussion:
The South Atlantic Council is considering a harvest tag program for snapper grouper species with low recreational ACLs. In order to issue tags, the ACL needs to be specified in numbers of fish. The tag program intends for fishermen to use one tag per fish, therefore wreckfish, if added to the tag program, needs to be calculated in numbers of fish. An average weight of 30 pounds is used to convert the recreational ACL from pounds to numbers of fish for **Alternatives 2-5**, taken from information provided in Yandle amd Crosson (2014).

Alternative 3. ACL = OY = 0.95*Proposed ABC. The ACL for 2020 would remain in place until modified.

Year	New ABC lbs ww	ACL	Commercial ACL (95%)	Recreational ACL (5%)	Recreational ACL (#s)
2015	433,000	411,350	390,783	20,568	686
2016	423,700	402,515	382,389	20,126	671
2017	414,200	393,490	373,816	19,675	656
2018	406,300	385,985	366,686	19,299	643
2019	396,800	376,960	358,112	18,848	628
2020	389,100	369,645	351,163	18,482	616

All values in lbs ww. An average weight of 30 pounds is used to convert the recreational ACL from pounds to number of fish.

Alternative 4. ACL = OY = 0.90*Proposed ABC. The ACL for 2020 would remain in place until modified.

Year	New ABC lbs ww	ACL	Commercial ACL (95%)	Recreational ACL (5%)	Recreational ACL (#s)
2015	433,000	389,700	370,215	19,485	650
2016	423,700	381,330	362,264	19,067	636
2017	414,200	372,780	354,141	18,639	621
2018	406,300	365,670	347,387	18,284	609
2019	396,800	357,120	339,264	17,856	595
2020	389,100	350,190	332,681	17,510	584

All values in lbs ww. An average weight of 30 pounds is used to convert the recreational ACL from pounds to number of fish.

Alternative 5. ACL = OY = 0.80*Proposed ABC. The ACL for 2020 would remain in place until modified.

Year	New ABC lbs ww	ACL	Commercial ACL (95%)	Recreational ACL (5%)	Recreational ACL (#s)
2015	433,000	346,400	329,080	17,320	577
2016	423,700	338,960	322,012	16,948	565
2017	414,200	331,360	314,792	16,568	552
2018	406,300	325,040	308,788	16,252	542
2019	396,800	317,440	301,568	15,872	529
2020	389,100	311,280	295,716	15,564	519

All values in lbs ww. An average weight of 30 pounds is used to convert the recreational ACL from pounds to number of fish.

Alternative 6. ACL = OY = OFL IPT recommends moving to the Appendix.

Year	New ABC lbs ww	ACL	New OFL (lbs ww)
2014		571,500	571,500
2015	433,000	553,300	553,300
2016	423,700	536,700	536,700
2017	414,200	521,900	521,900
2018	406,300	507,300	507,300
2019	396,800	493,700	493,700
2020	389,100	481,200	481,200

Discussion

Three letters were received requesting the wreckfish ACL be set at the overfishing limit (OFL). Letters from Jim Freeman and John Polston, Directed Sustainable Fisheries, Inc., and Southeastern Fisheries Association, East Coast Fisheries Section, present rationale for this request. However, setting ACL at the same level as the OFL would exceed the ABC catch level recommendations provided by the South Atlantic Council's SSC. The Magnuson-Stevens Fishery Conservation and Management Act indicates that a Council cannot exceed the catch level recommendations of its SSC. Therefore, this is not a reasonable alternative and the IPT suggests that it be moved to the Considered But Rejected Appendix.

COMMITTEE ACTION:

OPTION 1. DO NOT INCLUDE SPECIFICATION OF THE WRECKFISH REC ACL IN NUMBERS OF FISH IN ACTION 3

OPTION 2. ADD AN ACTION/ALTERNATIVES TO SPECIFY THE WRECKFISH REC ACL IN NUMBERS OF FISH

OPTION 3. OTHERS?

COMMITTEE ACTION:

OPTION 1. APPROVE IPTS' SUGGESTED EDITS TO ALTERNATIVES UNDER ACTION 3

OPTION 2. MODIFY THE IPT'S SUGGESTED EDITS TO ALTERNATIVES UNDER ACTION 3 (COMMITTEE/COUNCIL TO SPECIFY CHANGES) AND APPROVE

OPTION 3. OTHERS?

COMMITTEE ACTION:

OPTION 1. APPROVE IPTS' SUGGESTION TO MOVE ALTERNATIVE 6 TO THE CONSIDERED BUT REJECTED APPENDIX

OPTION 2. OTHERS??

Preliminary Summary of Effects

Biological

Alternative 1 (No Action) would retain the current ACL, equal to the ABC=OY=ABC 235,000 lbs ww, that was analyzed and specified in the final rule for the Comprehensive ACL Amendment (SAFMC 2011). Sector allocations for the commercial and recreational ACLs are 95% (223,250 lbs ww) and 5%, respectively, (11,750 lbs ww). The amount of wreckfish that are allocated to recreational fishermen is very small, (approximately 300-350 fish), as wreckfish average weight is 30 to 40 lbs ww. However, this alternative allows for the incidental catch of wreckfish when targeting co-occurring species. **Alternatives 2 (Preferred),** and **Alternatives 3-5** would retain the 95% (commercial) and 5% (recreational) sector allocations. Since commercial quotas can be monitored to prevent overages, and estimates of recreational landings are generally less certain for rarely encountered species in a survey-based system like Marine Recreational Information Program, there is a greater chance that ACLs would be exceeded for the recreational sector**,** than for the commercial sector. However, since ACLs for wreckfish were implemented in 2012, the recreational ACL has not been met.

Like **Alternative 1 (No Action)**, **Alternatives 2 (Preferred)-5** would set OY equal to the ACL. NS1 establishes the relationship between conservation and management measures, preventing overfishing, and achieving OY from each stock, stock complex, or fishery. The long-term objective is to achieve OY through annual achievement of an ACL.

The biological benefits of **Alternatives 2 (Preferred)** through **Alternative 5** would be less than under **Alternative 1 (No Action)** because they would increase the ACL and OY for wreckfish based upon a percentage of the updated ABC (100% down to 80%, respectively). However, a new assessment has been conducted for wreckfish, and the South Atlantic Council's SSC has increased their catch level recommendations indicating that there is not a biological need to retain the ACL at the levels specified under **Alternative 1 (No Action)**. Thus, compared to **Alternative 1 (No Action)**, increasing the ACL under **Alternative 2 (Preferred)-5** would not be expected to negatively impact the health of the wreckfish stock. **Alternative 2 (Preferred)** would set the ACL equal to the SSC's recommendation for the updated ABC. The preferred alternative for ACL specified for wreckfish in the Comprehensive ACL Amendment also set ACL equal to the ABC. The NS1 guidelines indicate the ACL may typically be set very close to the ABC. **Alternatives 3, 4,** and **5** would have a greater positive biological effect than **Alternative 1 (No Action)** and **Preferred Alternative 2** because they would also create a buffer between the ACL/OY and ABC, with **Alternative 5** setting the most conservative ACL at 80%

of the ABC. A buffer between the ACL/OY and ABC would provide greater assurance that overfishing is prevented and the long-term average biomass is near or above SSB_{MSY}. However, as mentioned for gag under **Action 1**, commercial monitoring mechanisms have been improved and a Joint Dealer Reporting Amendment, which became effective on August 7, 2014, requires dealers to report landings electronically each week. Furthermore, overages of the commercial ACL are not expected because an individual transferable quota (ITQ) program is in place where there is a limited number of quota shares and a cap on the number of wreckfish quota shares a single entity may own. Under the ITQ program, commercial wreckfish landings are tracked closely, due to mandatory reporting requirements. In addition, a recreational allocation helps to mitigate bycatch mortality in this portion of the snapper grouper fishery. Currently, recreational fishermen have to discard any wreckfish they catch, and since the species inhabits deep water, discard mortality is 100%. Therefore, alternatives with larger recreational ACLs would allow a larger amount of harvest by recreational fishermen, and reduces the need for regulatory discards.

Economic

Whenever ACLs are changed, economic effects can be expected if the changes are expected to have an effect on the number of fish that can be taken by any sector. When a sector's ACL increases, it can be expected that there would be positive direct effects for the commercial sector in that more trips would be taken assuming the entire ACL would be caught. When the recreational sector is increased, the overall consumer surplus would increase due to the greater availability of fish. All alternatives other than **Alternative 1 (No Action)** would increase the ACL for both sectors over what is currently available. The size of the positive economic effects would depend largely on the increase in the ACL. Compared to **Alternative 1 (No Action)**, in order of least to most negative direct economic effects for the commercial sector over time or least to most decrease in the consumer surplus for the recreational sector over time are **Preferred Alternative 2**, **Alternative 3**, **Alternative 4**, and **Alternative 5**.

Social

The higher the ACL, the greater the short-term social and economic benefits that would be expected to accrue. **Alternative 6** would be expected to allow the greatest benefits to the wreckfish fishermen, as long as harvest did not negative effect the stock. **Preferred Alternative 2** would be expected to provide the next highest level of benefits to fishermen, followed by (in order) **Alternative 3**, **Alternative 4**, and **Alternative 5**. The ACL level in **Alternative 1 (No Action)** would be expected to have the fewest benefits to wreckfish fishermen.

COMMITTEE ACTION:

OPTION 1. APPROVE REGULATORY AMENDMENT 22 FOR PUBLIC HEARINGS IN FALL 2014

OPTION 2. CONTINUE DEVELOPMENT OF AMENDMENT AND REVISIT AT THE DECEMBER MEETING TO CONSIDER APPROVAL FOR JANUARY 2015 PUBLIC HEARINGS

OPTION 3. OTHERS??