



# Snapper Grouper Amendment 24 – Red Grouper

Snapper Grouper AP October 2011 –  
Charleston, SC

## Decision Document

### Background and need for this amendment:

The SEDAR stock assessment of the red grouper stock in the South Atlantic was completed in 2010 with data through 2008. The assessment showed red grouper are overfished (population biomass or pounds in the water is too low) and undergoing overfishing (rate of removal or numbers of fish removed from the water is too high).

$$\text{Overfishing Ratio} = F_{2008}/F_{MSY} = 0.298/0.221 = 1.35$$

$$\text{Overfished Ratio} = B_{2008}/MSST = 4,521,635/4,914,053 = 0.92$$

The South Atlantic Fishery Management Council (South Atlantic Council) and National Marine Fisheries Service (NOAA Fisheries Service) are required by law to implement a rebuilding plan. The primary purpose of Amendment 24 to the Fishery Management Plan for the Snapper Grouper Fishery (Amendment 24) is to implement the rebuilding plan to end overfishing and rebuild the spawning stock of red grouper. However, the South Atlantic Council is also required to specify management benchmarks (called maximum sustainable yield and minimum stock size threshold).

On July 29, 2009, the South Atlantic Council's Amendment 16 to the Snapper Grouper Fishery Management Plan that included a four-month spawning season closure for gag grouper and shallow water groupers (including red grouper) was implemented by NOAA Fisheries Service. Based on 2010 red grouper catch data, current management measures may be sufficient to limit recreational landings below the recreational ACL proposed in this amendment; however, the commercial ACL is expected to be exceeded before the end of the year once implemented in 2012.

Specific goals and proposed actions of the amendment:

1. Maximum Sustainable Yield
2. Minimum Stock Size Threshold
3. Rebuilding Schedule
4. Rebuilding Strategy and Acceptable Biological Catch Levels
5. Allocations
6. Annual Catch Limits and Optimum Yield
7. Accountability Measures for the Commercial Sector
8. Accountability Measures for the Recreational Sector

General Timing for this Amendment:

1. Approved for public hearings – August 2011
2. Public hearings – September (FL postponed); rescheduled to November/December 2011
3. Review comments, final review and approval for formal review – December 2011
4. Send to Secretary of Commerce – December 2011

**Actions & Alternatives**

**Action 1. Re-define Maximum Sustainable Yield.**

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

$$F_{30\%SPR} = 0.178$$

MSY: not specified

**Alternative 2 (Preferred).** MSY equals the yield produced by  $F_{MSY}$  or the  $F_{MSY}$  proxy. MSY equals the yield produced by  $F_{MSY}$  or the  $F_{MSY}$  proxy.

MSY and  $F_{MSY}$  are recommended by the most recent SEDAR/SSC.

$$F_{30\%SPR} = 0.221$$

MSY = 1,110,000 lbs (whole weight)

**Council changes/guidance:**

- Staff had no recommendations for this action.
- **During their September 2011 meeting the Council made no changes to this action.**

## **Action 2. Re-define Minimum Stock Size Threshold**

**Alternative 1 (No Action).** MSST equals  $SSB_{MSY} ((1-M) \text{ or } 0.5, \text{ whichever is greater})$ .

M= 0.14

MSST= 4,914,053 Lbs (Whole Weight)

**Alternative 2.** MSST equals 50% of  $SSB_{MSY}$ .

MSST= 2,857,162 Lbs (Whole Weight)

**Alternative 3 (Preferred).** MSST equals 75% of  $SSB_{MSY}$ .

MSST= 4,285,742 Lbs (Whole Weight)

**Alternative 4.** MSST equals 85% of  $SSB_{MSY}$ .

MSST= 4,857,175 Lbs (Whole Weight)

**Alternative 5:** MSST at which rebuilding to the MSY level would be expected to occur within 10 years at the MFMT level.

### **Council changes/guidance:**

- Staff had no recommendations for this action.
- **During their September 2011 meeting the Council made no changes to this action.**

### **Action 3. Establish a Rebuilding Schedule**

**Alternative 1 (No Action).** There currently is not a rebuilding plan for red grouper. Snapper Grouper Amendment 4 (regulations effective January 1992) implemented a 15-year rebuilding plan beginning in 1991, which expired in 2006.

**Alternative 2.** Define a rebuilding schedule as the shortest possible period to rebuild in the absence of fishing mortality ( $T_{MIN}$ ). This would equal 3 years with the rebuilding time period ending in 2013. 2011 is Year 1.

**Alternative 3.** Define a rebuilding schedule intermediate ~~as the mid-point~~ between the shortest possible and maximum recommended period to rebuild. This would equal 7 years with the rebuilding time period ending in 2017. 2011 is Year 1.

**Alternative 4.** Define a rebuilding schedule of ~~as the mid-point between the shortest possible and maximum recommended period to rebuild.~~ This would equal 8 years with the rebuilding time period ending in 2018. 2011 is Year 1.

**Alternative 5 (Preferred).** Define a rebuilding schedule as the maximum period allowed to rebuild ( $T_{MAX}$ ). This would equal 10 years with the rebuilding time period ending in 2020. 2011 is Year 1.

#### **Council changes/guidance:**

- Staff suggested rewording Action 3, Alternatives 3 & 4 as depicted above.
- **During their September 2011 meeting the Council directed staff to make the above changes.**

## **Action 4. Establish a Rebuilding Strategy and Acceptable Biological Catch Levels**

**Alternative 1 (No Action).** Do not specify a rebuilding strategy.

Currently  $F_{OY} = F_{45\%SPR}$  and F rate is 0.1055

**Alternative 2.** Define a rebuilding strategy for red grouper that sets ABC equal to the yield at  $F_{REBUILD}$ .  $F_{REBUILD}$  is a fishing mortality rate that would have a 70% probability of rebuilding success to  $SSB_{MSY}$  in  $T_{MAX}$  (10 years for red grouper). Under this strategy, the fishery would have at least a 50% chance of rebuilding to  $SSB_{MSY}$  by 2017 and 70% chance of rebuilding to  $SSB_{MSY}$  by 2020.

$F_{OY}$  would equal 0.181.

**Alternative 3 (Preferred).** Define a rebuilding strategy for red grouper that sets ABC equal to the yield at 75%  $F_{MSY}$ . Under this strategy, the fishery would have at least a 50% chance of rebuilding to  $SSB_{MSY}$  by 2016 and 81% chance of rebuilding to  $SSB_{MSY}$  by 2020.

$F_{OY}$  would equal 0.166.

**Alternative 4.** Define a rebuilding strategy for red grouper that sets ABC equal to the yield at 65%  $F_{MSY}$ . Under this strategy, the fishery would have at least a 50% chance of rebuilding to  $SSB_{MSY}$  by 2016 and 92% chance of rebuilding to  $SSB_{MSY}$  by 2020.

$F_{OY}$  would equal 0.144.

**Alternative 5.** Define a rebuilding strategy for red grouper that sets ABC equal to the yield at  $F_{REBUILD}$ .  $F_{REBUILD}$  is a fishing mortality rate that would have a 70% probability of rebuilding success to  $SSB_{MSY}$  in 7 years. Under this strategy, the fishery would have at least a 48% chance of rebuilding to  $SSB_{MSY}$  by 2015 and 70% chance of rebuilding to  $SSB_{MSY}$  by 2017.

$F_{OY}$  would equal 0.157.

**Alternative 6.** Define a rebuilding strategy for red grouper that sets ABC equal to the yield at  $F_{REBUILD}$ .  $F_{REBUILD}$  is a fishing mortality rate that would have a 70% probability of rebuilding success to  $SSB_{MSY}$  in 8 years. Under this strategy, the fishery would have at least a 54% chance of rebuilding to  $SSB_{MSY}$  by 2016 and 70% chance of rebuilding to  $SSB_{MSY}$  by 2018.

$F_{OY}$  would equal 0.168.

Alternatives	Rebuilding strategy (F <sub>0Y</sub> Equal To)		ABC (lbs whole weight) <i>Landings &amp; Discards</i>	ABC (lbs whole weight) <i>Landings</i> <b>(Preferred)</b>
	Scenario	F rate		
<b>Alternative 1 (No Action)</b>	F <sub>45%SPR</sub>	0.1055	399,000 (2011)	374,000 (2011)
			468,000 (2012)	442,000 (2012)
			537,000 (2013)	511,000 (2013)
			602,000 (2014)	575,000 (2014)
<b>Alternative 2</b>	F <sub>REBUILD</sub> (10 years)	0.181	665,000 (2011)	622,000 (2011)
			737,000 (2012)	693,000 (2012)
			806,000 (2013)	762,000 (2013)
			866,000 (2014)	822,000 (2014)
<b>Alternative 3 (Preferred)</b>	75%F <sub>MSY</sub>	0.166	613,000 (2011)	<b>573,000 (2011)</b>
			687,000 (2012)	<b>647,000 (2012)</b>
			759,000 (2013)	<b>718,000 (2013)</b>
			821,000 (2014)	<b>780,000 (2014)</b>
<b>Alternative 4</b>	65%F <sub>MSY</sub>	0.144	535,000 (2011)	501,000 (2011)
			610,000 (2012)	575,000 (2012)
			683,000 (2013)	648,000 (2013)
			749,000 (2014)	713,000 (2014)
<b>Alternative 5</b>	F <sub>REBUILD</sub> (7 years)	0.157	583,000 (2011)	545,000 (2011)
			657,000 (2012)	619,000 (2012)
			730,000 (2013)	691,000 (2013)
			794,000 (2014)	755,000 (2014)
<b>Alternative 6</b>	F <sub>REBUILD</sub> (8 years)	0.168	620,000 (2011)	580,000 (2011)
			695,000 (2012)	654,000 (2012)
			765,000 (2013)	724,000 (2013)
			828,000 (2014)	787,000 (2014)



**Council changes/guidance:**

- Staff requested clarification that the rebuilding period based on the assessment began with the 2011 year with an ABC = 573,000 pounds of landings (whole weight). This is important for use in applying the AMs, which will require comparing 2011 landings to the ACL for 2011.
- Staff requested information on current red grouper commercial and recreational 2011 landings
- **During their September 2011 meeting the Council clarified that the rebuilding period began with the 2011 year. No data on 2011 red grouper landings were available.**

## Action 5. Specify Sector Allocations

**Alternative 1 (No Action).** Do not establish sector allocations for red grouper.

**Alternative 2 (Preferred).** Specify allocations for the commercial and recreational sectors based on criteria as outlined in one of the following options:

**Subalternative 2a.** Commercial = 5260% and recreational = 4840% (Established by using average landings ~~catch history~~ from 1986-2008).

**Subalternative 2b.** Commercial = 5467% and recreational = 4633% (Established by using average landings ~~catch history~~ from 1986-1998).

**Subalternative 2c.** Commercial = 4955% and recreational = 5145% (Established by using average landings ~~catch history~~ from 1999-2008).

**Subalternative 2d.** Commercial = 4143% and recreational = 5957% (Established by using average landings ~~catch history~~ from 2006-2008).

**Subalternative 2e (Preferred).** Commercial = 4445% and recreational = 5655% (Established by using 50% of average landings ~~catch history~~ from 1991-2008 + 50% of average landings ~~catch history~~ from 2006-2008).

~~**Alternative 3.** Specify allocations for the commercial, for hire, and recreational sectors based on criteria as outlined in one of the following options:~~

~~**Subalternative 3a.** Commercial = 60%, for hire = 28%, and recreational = 12% (Established by using catch history from 1986-2008).~~

~~**Subalternative 3b.** Commercial = 67%, for hire = 20%, and recreational = 13% (Established by using catch history from 1986-1998).~~

~~**Subalternative 3c.** Commercial = 55%, for hire = 34%, and recreational = 11% (Established by using catch history from 1999-2008).~~

~~**Subalternative 3d.** Commercial = 43%, for hire = 49%, and recreational = 8% (Established by using catch history from 2006-2008).~~

~~**Subalternative 3e.** Commercial = 45%, for hire = 28%, and recreational = 27% (Established by using 50% of catch history from 1991-2008 + 50% of catch history from 2006-2008).~~

**Council changes/guidance:**

- Staff requested that the Council clarify that their intent was to use average landings in applying Boyle’s Law.
- **During their September 2011 meeting the Council clarified their intent to use average landings in Boyle’s law.**

Alternative	Allocation using Totals And ACL Database (in Amendment 24)	Allocations using Average And Assessment Database (rec ww but com gw) (in Public Hearing Summary)	Allocations using Average And Assessment Database (rec & com ww) (corrected in Decision Document)
Alternative 2a.	Com = 60%; Rec = 40%	Com = 47%; Rec = 53%	Com = 52%; Rec = 48%
Alternative 2b.	Com = 67%; Rec = 33%	Com = 50%; Rec = 50%	Com = 54%; Rec = 46%
Alternative 2c.	Com = 55%; Rec = 45%	Com = 45%; Rec = 55%	Com = 49%; Rec = 51%
Alternative 2d.	Com = 43%; Rec = 57%	Com = 37%; Rec = 63%	Com = 41%; Rec = 59%
Alternative 2e (Preferred).	Com = 45%; Rec = 55%	Com = 40%; Rec = 60%	Com = 44%; Rec = 56%

- Staff requested the Council clarify that it is their intent to use data from the SEDAR Assessment.
- **During their September 2011 meeting the Council indicated that it was their intent to use the SEDAR data.**
- Staff requested the Council verify that “Boyle’s Law” is correctly applied. The formula is shown on the next page and this would require changing “catch history” to “average landings” in the subalternatives.
- **During their September 2011 meeting the Council verified that Boyle’s Law was correctly applied and approved changing the wording to “average landings” as depicted above.**
- Staff recommended the Council move Alternative 3 to the Appendix. The percentages cannot be calculated from the assessment database and the Council has not allocated by 3 sectors.
- **During their September 2011 meeting the Council moved Alternative 3 to the considered but rejected appendix.**
- Staff requested the Council clarify their preferred alternative for the time period to be used for catch history. In June 2010 the Council chose to use 1986-2008 and in September 2010, when black grouper actions were taken out of Amendment 24, the Council made a motion to select the same preferred alternative that they had selected for back grouper, which changed the time series to 1991 onwards to circumvent species identification issues between black grouper and gag that occurred early in the time



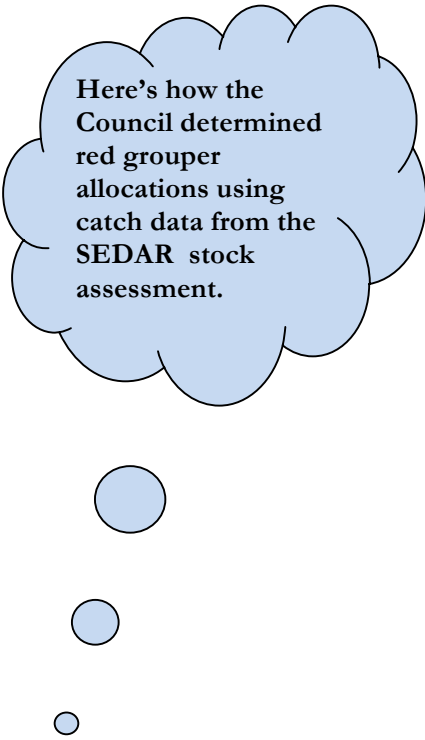
series (before 1991). The Council needs to clarify whether to start the time series in 1991 (Subalternative 2e) or change to 1986 (same percentages as shown for Subalternative 2e).

- **During their September 2011 meeting the Council clarified their intent to use the 1986 through 2008 time series.**

Red Grouper Catches by Recreational & Commercial Sectors and Percentages from data in the SEDAR Assessment (pounds whole weight):

Year	Recreational	% Rec	Commercial	%Com	Total
1986	775,164	69%	353,202	31%	1,128,366
1987	122,558	30%	285,679	70%	408,237
1988	160,621	33%	329,624	67%	490,245
1989	335,050	51%	319,067	49%	654,117
1990	78,198	23%	255,077	77%	333,275
1991	50,803	20%	198,562	80%	249,365
1992	176,044	53%	156,617	47%	332,661
1993	337,910	66%	171,300	34%	509,210
1994	216,995	57%	162,735	43%	379,730
1995	241,106	52%	222,171	48%	463,277
1996	333,076	55%	276,945	45%	610,021
1997	316,706	51%	305,940	49%	622,646
1998	327,083	43%	433,301	57%	760,384
1999	187,357	32%	391,232	68%	578,589
2000	172,432	34%	329,150	66%	501,582
2001	188,190	35%	344,748	65%	532,938
2002	300,258	47%	336,392	53%	636,650
2003	383,175	56%	305,646	44%	688,821
2004	423,043	59%	297,475	41%	720,518
2005	314,667	61%	199,761	39%	514,428
2006	619,598	67%	307,212	33%	926,810
2007	667,750	55%	541,960	45%	1,209,710
2008	1,125,328	67%	556,286	33%	1,681,614

Landings data from the Red Grouper SEDAR Stock Assessment was used to determine allocations ([www.sefsc.noaa.gov/sedar](http://www.sefsc.noaa.gov/sedar))



**South Atlantic Council's Preferred Allocation Formula for each sector:**

Sector apportionment = (50% \* (average of long catch range (lbs) 1991-2008 + (50% \* average of recent catch trend (lbs) 2006-2008). The commercial and recreational allocations specified would remain in effect until modified.

$$\text{Com Sector \%} = \frac{(50\% \times \text{Average Com 1991-2008}) + (50\% \times \text{Average Com 2006-2008})}{(50\% \times \text{Avg Com 1991-2008} + 50\% \times \text{Avg Com 2006-2008}) + (50\% \times \text{Avg Rec 1991-2008} + 50\% \times \text{Avg Rec 2006-2008})}$$

$$\text{Rec Sector \%} = \frac{(50\% \times \text{Average Rec 1991-2008}) + (50\% \times \text{Average Rec 2006-2008})}{(50\% \times \text{Avg Rec 1991-2008} + 50\% \times \text{Avg Rec 2006-2008}) + (50\% \times \text{Avg Com 1991-2008} + 50\% \times \text{Avg Com 2008})}$$

## **Action 6. Specify Annual Catch Limits and Optimum Yield**

**Alternative 1 (No Action).** An individual ACL is currently not in place for red grouper. Retain aggregate recreational and commercial ACLs for black grouper, red grouper, and gag. The commercial sector ACL for gag, black grouper, and red grouper is 662,403 gw (781,636 ww) and 648,663 gw (765,422 ww) for the recreational sector. The total group ACL is 1,311,066 gw (1,547,058 ww). These values are equivalent to the expected catch resulting from the implementation of management measures for red grouper in Amendment 16 and specified in Amendment 17B.

**Alternative 2 (Preferred).**  $ACL = OY = ABC$ . Specify commercial and recreational ACLs for red grouper for 2012, 2013, and 2014 and beyond as indicated in the table below (**Table S-1**). The ACL for 2014 would remain in effect until modified. ACLs will not increase in a subsequent year if present year projected catch has exceeded the total ACL.

**Alternative 3.**  $ACL = OY = 90\%$  of the ABC. Specify commercial and recreational ACLs for red grouper for 2012, 2013, and 2014 and beyond as indicated in the table below (**Table S-2**). The ACL for 2014 would remain in effect until modified. ACLs will not increase in a subsequent year if present year projected catch has exceeded the total ACL.

**Alternative 4.**  $ACL = OY = 80\%$  of the ABC. Specify commercial and recreational ACLs for red grouper for 2012, 2013, and 2014 and beyond as indicated in the table below (**Table S-3**). The ACL for 2014 would remain in effect until modified. ACLs will not increase in a subsequent year if present year projected catch has exceeded the total ACL.

**Alternative 5 (Preferred).** Eliminate the commercial sector aggregate ACL of 662,403 lbs gw for black grouper, gag, and red grouper. Eliminate the in-season AM that specifies a prohibition on possession of all shallow water groupers once the commercial aggregate ACL is projected to be met.

**Alternative 6 (Preferred).** Eliminate the recreational sector aggregate ACL of 648,663 lbs gw for black grouper, gag, and red grouper. Eliminate the in-season AM that specifies a prohibition on possession of black grouper, gag, and red grouper once the ACL is projected to be met if any one of the three species is listed as overfished. Eliminate the post-season AM that specifies a reduction in a subsequent year's ACL by the amount of an overage if landings exceed the aggregate ACL. Eliminate the regulation that states that the recreational landings are evaluated relative to the ACL as follows: For 2010, only 2010 recreational landings will be compared to the ACL; in 2011, the average of 2010 and 2011 recreational landings will be compared to the ACL; and in 2012 and subsequent fishing years, the most recent 3-year running average recreational landings will be compared to the ACL.

### Council changes/guidance:

- Staff requested the Council verify that the new Tables S-1, S-2, and S-3 use the correct allocations resulting from applying Boyle's Law.
- **During their September 2011 meeting the Council verified the new tables use the correct allocations from Boyle's Law.**
- Staff suggested the reference to a table be removed from the wording of the alternatives by deleting "and beyond as indicated in the table below (Table xx).
- **During their September 2011 meeting the Council agreed with this change.**
- Staff requested the Council verify the proposed 2012 ACL Values.
- **During their September 2011 meeting the Council verified the following ACLs:**
  - a. **2012 Annual Catch Limits (ACLs):**
    - Total red grouper ACL = 647,000 pounds
    - Commercial Sector ACL = 284,680 pounds
    - Recreational Sector ACL = 362,320 pounds
  - b. **2013 Annual Catch Limits (ACLs):**
    - Total red grouper ACL = 718,000 pounds
    - Commercial Sector ACL = 315,920 pounds
    - Recreational Sector ACL = 402,080 pounds
  - c. **2014 Annual Catch Limits (ACLs):**
    - Total red grouper ACL = 780,000 pounds
    - Commercial Sector ACL = 343,200 pounds
    - Recreational Sector ACL = 436,800 pounds
- Staff requested confirmation that it is the Council's intent that the ACLs will increase in 2013 and 2014 as long as the quota monitoring programs work well enough to prevent commercial or recreational overages. If there are overages, the ACL will not increase.
- The Council needs to clarify their intent by specifying "total" and "sector" overages and ACLs in the alternative language above. Is the intent to not allow an increase in the TOTAL ACL if a SECTOR ACL was exceeded? If this is the case, one sector could exceed their sector ACL and the other sector could be under, but the TOTAL ACL and hence each SECTOR ACL, would not be increased according to the rebuilding plan.
- **During their September 2011 meeting the Council verified that it was their intent that the ACLs not increase if the total ACL is exceeded.**

### Issues after September Council meeting

What will the ACL increases look like under difference scenarios?

If, for example, the 2012 total ACL of 647,000 pounds whole weight is exceeded in 2012, then the 2013 ACL would remain 647,000 pounds whole weight. If in 2013 catches are below 647,000 pounds whole weight, would the 2014 ACL then be 718,000 pounds whole weight (the 2013 value) or jump to 780,000 pounds whole weight (the 2014

value). Also, what happens if the 2011 value (573,000 pounds whole weight) is exceeded?

SERO staff are working on some examples to show to the Council at the December meeting.

**Table S-1.** The ACL values (lbs whole weight) for red grouper in **Preferred Alternative 2** (ACL=OY=ABC). ACL values are based on preferred allocation alternative (44% commercial/56% recreational). **The Council's proposed values are shown in yellow.**

<b>Alt. 2 ACL=ABC</b>						
<b>Total</b>			↓			
	<b>Year</b>	<b>F<sub>REBUILD</sub> (10years)</b>	<b>75%F<sub>MSY</sub></b>	<b>65%F<sub>MSY</sub></b>	<b>F<sub>REBUILD</sub> (7 years)</b>	<b>F<sub>REBUILD</sub> (8 years)</b>
landings	2012	693,000	647,000	575,000	619,000	654,000
	2013	762,000	718,000	648,000	691,000	724,000
	2014	822,000	780,000	713,000	755,000	787,000
landings & discards	2012	737,000	687,000	610,000	657,000	695,000
	2013	806,000	759,000	683,000	730,000	765,000
	2014	866,000	821,000	749,000	794,000	828,000
<b>Commercial (44%)</b>			↓			
	<b>Year</b>	<b>F<sub>REBUILD</sub> (10years)</b>	<b>75%F<sub>MSY</sub></b>	<b>65%F<sub>MSY</sub></b>	<b>F<sub>REBUILD</sub> (7 years)</b>	<b>F<sub>REBUILD</sub> (8 years)</b>
landings	2012	304,920	284,680	253,000	272,360	287,760
	2013	335,280	315,920	285,120	304,040	318,560
	2014	361,680	343,200	313,720	332,200	346,280
landings & discards	2012	324,280	302,280	268,400	289,080	305,800
	2013	354,640	333,960	300,520	321,200	336,600
	2014	381,040	361,240	329,560	349,360	364,320
<b>Recreational (56%)</b>			↓			
	<b>Year</b>	<b>F<sub>REBUILD</sub> (10years)</b>	<b>75%F<sub>MSY</sub></b>	<b>65%F<sub>MSY</sub></b>	<b>F<sub>REBUILD</sub> (7 years)</b>	<b>F<sub>REBUILD</sub> (8 years)</b>
landings	2012	388,080	362,320	322,000	346,640	366,240
	2013	426,720	402,080	362,880	386,960	405,440
	2014	460,320	436,800	399,280	422,800	440,720
landings & discards	2012	412,720	384,720	341,600	367,920	389,200
	2013	451,360	425,040	382,480	408,800	428,400
	2014	484,960	459,760	419,440	444,640	463,680

**Table S-2.** The ACL values (lbs whole weight) for red grouper in **Alternative 3** (ACL=OY=90%ABC). ACL values are based on preferred allocation alternative (44% commercial/56% recreational).

<b>Alt. 3 ACL=90%ABC</b>						
<b>Total</b>						
	<b>Year</b>	<b>F<sub>REBUILD</sub> (10years)</b>	<b>75%F<sub>MSY</sub></b>	<b>65%F<sub>MSY</sub></b>	<b>F<sub>REBUILD</sub> (7 years)</b>	<b>F<sub>REBUILD</sub> (8 years)</b>
	2012	623,700	582,300	517,500	557,100	588,600
landings	2013	685,800	646,200	583,200	621,900	651,600
	2014	739,800	702,000	641,700	679,500	708,300
	2012	663,300	618,300	549,000	591,300	625,500
landings & discards	2013	725,400	683,100	614,700	657,000	688,500
	2014	779,400	738,900	674,100	714,600	745,200
<b>Commercial (44%)</b>						
	<b>Year</b>	<b>F<sub>REBUILD</sub> (10years)</b>	<b>75%F<sub>MSY</sub></b>	<b>65%F<sub>MSY</sub></b>	<b>F<sub>REBUILD</sub> (7 years)</b>	<b>F<sub>REBUILD</sub> (8 years)</b>
	2012	274,428	256,212	227,700	245,124	258,984
landings	2013	301,752	284,328	256,608	273,636	286,704
	2014	325,512	308,880	282,348	298,980	311,652
	2012	291,852	272,052	241,560	260,172	275,220
landings & discards	2013	319,176	300,564	270,468	289,080	302,940
	2014	342,936	325,116	296,604	314,424	327,888
<b>Recreational (56%)</b>						
	<b>Year</b>	<b>F<sub>REBUILD</sub> (10years)</b>	<b>75%F<sub>MSY</sub></b>	<b>65%F<sub>MSY</sub></b>	<b>F<sub>REBUILD</sub> (7 years)</b>	<b>F<sub>REBUILD</sub> (8 years)</b>
	2012	349,272	326,088	289,800	311,976	329,616
landings	2013	384,048	361,872	326,592	348,264	364,896
	2014	414,288	393,120	359,352	380,520	396,648
	2012	371,448	346,248	307,440	331,128	350,280
landings & discards	2013	406,224	382,536	344,232	367,920	385,560
	2014	436,464	413,784	377,496	400,176	417,312

**Table S-3.** The ACL values (lbs whole weight) for red grouper in **Alternative 4** (ACL=OY=80%ABC). ACL values are based on preferred allocation alternative (44% commercial/56% recreational).

<b>Alt. 4 ACL=80%ABC</b>						
<b>Total</b>						
	<b>Year</b>	<b>F<sub>REBUILD</sub> (10years)</b>	<b>75%F<sub>MSY</sub></b>	<b>65%F<sub>MSY</sub></b>	<b>F<sub>REBUILD</sub> (7 years)</b>	<b>F<sub>REBUILD</sub> (8 years)</b>
	2012	554,400	517,600	460,000	495,200	523,200
landings	2013	609,600	574,400	518,400	552,800	579,200
	2014	657,600	624,000	570,400	604,000	629,600
	2012	589,600	549,600	488,000	525,600	556,000
landings & discards	2013	644,800	607,200	546,400	584,000	612,000
	2014	692,800	656,800	599,200	635,200	662,400
<b>Commercial (44%)</b>						
	<b>Year</b>	<b>F<sub>REBUILD</sub> (10years)</b>	<b>75%F<sub>MSY</sub></b>	<b>65%F<sub>MSY</sub></b>	<b>F<sub>REBUILD</sub> (7 years)</b>	<b>F<sub>REBUILD</sub> (8 years)</b>
	2012	243,936	227,744	202,400	217,888	230,208
landings	2013	268,224	252,736	228,096	243,232	254,848
	2014	289,344	274,560	250,976	265,760	277,024
	2012	259,424	241,824	214,720	231,264	244,640
landings & discards	2013	283,712	267,168	240,416	256,960	269,280
	2014	304,832	288,992	263,648	279,488	291,456
<b>Recreational (56%)</b>						
	<b>Year</b>	<b>F<sub>REBUILD</sub> (10years)</b>	<b>75%F<sub>MSY</sub></b>	<b>65%F<sub>MSY</sub></b>	<b>F<sub>REBUILD</sub> (7 years)</b>	<b>F<sub>REBUILD</sub> (8 years)</b>
	2012	310,464	289,856	257,600	277,312	292,992
landings	2013	341,376	321,664	290,304	309,568	324,352
	2014	368,256	349,440	319,424	338,240	352,576
	2012	330,176	307,776	273,280	294,336	311,360
landings & discards	2013	361,088	340,032	305,984	327,040	342,720
	2014	387,968	367,808	335,552	355,712	370,944

**Action 7.** — Establish Accountability Measures for the Commercial Sector

**Alternative 1 (No Action).** Do not specify new commercial AMs for red grouper.

**Alternative 2.** Specify individual Annual Catch Targets (ACT) for red grouper.

**Subalternative 2a (Preferred).** Do not establish a commercial sector ACT.

**Subalternative 2b.** The ACT equals 90% of the ACL.

**Subalternative 2c.** The ACT equals 80% of the ACL.

**Alternative 3 (Preferred).** If the ACL is met or is projected to be met, all subsequent purchase and sale of red grouper is prohibited and harvest and/or possession is limited to the bag limit.

**Alternative 4 (Preferred).** If the ACL is exceeded, the Regional Administrator shall publish a notice to reduce the ACL in the following season by the amount of the overage.

**Action 8.** — Establish Accountability Measures for the Recreational Sector

**Alternative 1 (No Action).** Do not specify new recreational AMs for red grouper.

**Alternative 2.** Specify an ACT.

**Subalternative 2a.** Do not specify an ACT.

**Subalternative 2b.** The ACT equals 85% of the ACL.

**Subalternative 2c.** The ACT equals 75% of the ACL.

**Subalternative 2d (Preferred).** The ACT equals  $ACL * (1 - PSE)$  or  $ACL * 0.5$ , whichever is greater.

**Alternative 3.** Specify the AM trigger.

**Subalternative 3a.** Do not specify an AM trigger.

**Subalternative 3b (Preferred).** If the annual landings exceed the ACL in a given year.

**Subalternative 3c.** If the mean landings for the past three years exceed the ACL.

**Subalternative 3d.** If the modified mean landings exceeds the ACL. The modified mean is the most recent 5 years of available landings data with highest and lowest landings estimates from consideration removed.

**Subalternative 3e.** If the lower bound of the 90% confidence interval estimate of the MRFSS landings' population mean plus headboat landings is greater than the ACL.

**Alternative 4.** Specify the in-season AM.

**Subalternative 4a.** Do not specify an in-season AM.

**Subalternative 4b (Preferred).** The Regional Administrator shall publish a notice to close the recreational sector when the ACL is projected to be met.

**Alternative 5.** Specify the post-season AM.

**Subalternative 5a.** Do not specify a post-season AM.



~~**Subalternative 5b.** For post-season accountability measures, compare ACL with landings over a range of years. For 2011, use only 2011 landings. For 2012, use the mean landings of 2011 and 2012. For 2013 and beyond, use the most recent three-year running mean.~~

~~**Subalternative 5c.** Monitor following year. If the ACL is exceeded, the following year's landings would be monitored for persistence in increased landings. The Regional Administrator would take action as necessary.~~

~~**Subalternative 5d.** Monitor following year and shorten season as necessary. If the ACL is exceeded, the following year's landings would be monitored in-season for persistence in increased landings. The Regional Administrator will publish a notice to reduce the length of the fishing season as necessary.~~

~~**Subalternative 5e.** Monitor following year and reduce bag limit as necessary. If the ACL is exceeded, the following year's landings would be monitored for persistence in increased landings. The Regional Administrator will publish a notice to reduce the bag limit as necessary.~~

~~**Subalternative 5f.** Shorten following season. If the ACL is exceeded, the Regional Administrator shall publish a notice to reduce the length of the following fishing year by the amount necessary to ensure landings do not exceed the ACL for the following fishing season.~~

~~**Subalternative 5g (Preferred).** Payback. If the ACL is exceeded, the Regional Administrator shall publish a notice to reduce the ACL in the following season by the amount of the overage.~~

#### **Council changes/guidance:**

- Staff recommended the Council separate ACT (Action 7) from AMs (Action 8) and organize them such that Action 7 addresses commercial ACTs, Action 8 addresses recreational ACTs, Action 9 addresses commercial AMs, and Action 10 addresses recreational AMs. The Actions and Alternatives would read as follows:

### **Action 7. Specify individual a Commercial Annual Catch Target (ACT) for red grouper.**

~~**Alternative 1 (No Action)(Preferred).** Currently there is no commercial ACT for red grouper. Do not establish a commercial sector ACT. (proposed commercial ACL would equal 284,680 pounds ww in 2012 but would change in 2013 and 2014 as long as the total ACL is not exceeded)~~

~~**Alternative 2.** The commercial ACT equals 90% of the commercial ACL (proposed commercial ACT would equal 256,212 pounds ww in 2012 but would change in 2013 and 2014 as long as the total ACL is not exceeded)~~

~~**Alternative 3.** The commercial ACT equals 80% of the commercial ACL (proposed commercial ACT would equal 227,744 pounds ww in 2012 but would change in 2013 and 2014 as long as the total ACL is not exceeded)~~

**During their September 2011 meeting the Council approved the suggested wording for Action 7 and added "the total" before "ACL" in Alternatives 1-3.**

**Action 8. Specify a Recreational Annual Catch Target (ACT) for red grouper.**

**Alternative 1 (No Action).** Currently there is no recreational ACT for red grouper. ~~Do not specify a recreational ACT.~~ (proposed recreational ACL would equal 362,320 pounds ww in 2012 but would change in 2013 and 2014 as long as the total ACL is not exceeded)

**Alternative 2.** The recreational ACT equals 85% of the recreational ACL (proposed recreational ACT would equal 307,972 pounds ww in 2012 but would change in 2013 and 2014 as long as the total ACL is not exceeded)

**Alternative 3.** The recreational ACT equals 75% of the recreational ACL (proposed recreational ACT would equal 271,740 pounds ww in 2012 but would change in 2013 and 2014 as long as the total ACL is not exceeded)

**Alternative 4 (Preferred).** The recreational ACT equals the recreational ACL\*(1-PSE) or ACL\*0.5, whichever is greater (proposed recreational ACT would equal 271,740 pounds ww in 2012 but would change in 2013 and 2014 as long as the total ACL is not exceeded)

**During their September 2011 meeting the Council approved the suggested wording for Action 8 and added “the total” before ACL in Alternatives 1-3.**

- Staff requested the Council confirm their intent to use the PSE values contained in the Assessment. Further, that the Council’s intent is to use the 5-year average rounded to a whole percentage (PSE = 25%).

2004	24.7
2005	22.7
2006	26.0
2007	27.1
2008	25.6
3 Yr Avg	26.2
5 Yr Avg	25.2
Council using PSE=25%	

**During their September 2011 meeting the Council verified their intent to use the PSE values from the assessment and use the 5-year average rounded to a whole percentage (25%).**

## **Action 9. Specify Commercial Accountability Measures (AMs) for Red Grouper**

**Alternative 1 (No Action).** Do not specify new commercial and recreational AMs for red grouper.

**Alternative 2 (Preferred).** If the commercial ACL is met or is projected to be met, all subsequent purchase and sale of red grouper is prohibited and harvest and/or possession is limited to the bag limit.

**Alternative 3 (Preferred).** If the commercial ACL is exceeded, the Regional Administrator shall publish a notice to reduce the commercial ACL in the following season by the amount of the overage.

**During their September 2011 meeting the Council approved the suggested wording for Action 9.**

## **Action 10. Specify Recreational Accountability Measures (AMs) for Red Grouper**

**Alternative 1 (No Action).** Do not specify new commercial and recreational AMs for red grouper.

**Alternative 2.** Specify the recreational AM trigger.

**Subalternative 2a.** Do not specify a recreational AM trigger.

**Subalternative 2b (Preferred).** If the current year recreational landings exceed the recreational ACL in a given year.

**Subalternative 2c.** If the *mean* recreational *landings* for the past three years exceed the recreational ACL.

**Subalternative 2d.** If the *modified mean* recreational *landings* exceeds the recreational ACL. The modified mean is the most recent 5 years of available recreational landings data with highest and lowest landings estimates from consideration removed.

**Subalternative 2e.** If the lower bound of the 90% *confidence interval* estimate of the MRFSS landings' population mean plus headboat landings is greater than the recreational ACL.

**Alternative 3.** Specify the recreational in-season AM.

**Subalternative 3a.** Do not specify a recreational in-season AM.

**Subalternative 3b (Preferred).** The Regional Administrator shall publish a notice to close the recreational sector when the recreational ACL is projected to be met.

**Alternative 4.** Specify the recreational post-season AM.

**Subalternative 4a.** Do not specify a recreational post-season AM.

**Subalternative 4b.** For recreational post-season accountability measures, compare the recreational ACL with recreational landings over a range of years. For 2011, use only 2011 landings. For 2012, use the mean landings of 2011 and 2012. For 2013 and beyond, use the most recent three-year running mean.<sup>1</sup>

**Subalternative 4c.** Monitor following year. If the recreational ACL is exceeded, the following year's landings would be monitored for persistence in increased landings. The Regional Administrator would take action as necessary.

**Subalternative 4d.** Monitor following year and shorten season as necessary. If the recreational ACL is exceeded, the following year's landings would be monitored in-season for persistence in increased landings. The Regional Administrator will publish a notice to reduce the length of the recreational fishing season as necessary.

**Subalternative 4e.** Monitor following year and reduce bag limit as necessary. If the recreational ACL is exceeded, the following year's landings would be monitored for persistence in increased landings. The Regional Administrator will publish a notice to reduce the recreational bag limit as necessary.

**Subalternative 4f.** Shorten following season. If the recreational ACL is exceeded, the Regional Administrator shall publish a notice to reduce the length of the following recreational fishing year by the amount necessary to ensure landings do not exceed the recreational ACL for the following fishing season.

**Subalternative 4g (Preferred).** Payback. If the recreational ACL is exceeded, the Regional Administrator shall publish a notice to reduce the recreational ACL in the following season by the amount of the overage.

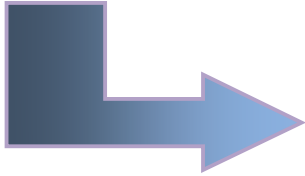
**During their September 2011 meeting the Council approved the suggested wording for Action 10.**

## Recreational

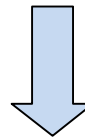
**PROPOSED 2012  
RECREATIONAL ACL = 362,320 POUNDS**

### **RECREATIONAL ACT**

Rec ACT = Rec ACL \*(1-PSE)  
= 362,320\*(1-0.25)  
= 271,740 pounds whole weight



**2010 RED GROUPER RECREATIONAL  
CATCH = 107,979 POUNDS**



In 2012 will  
compare with  
2011 landings

**NO RECREATIONAL CLOSURE IS  
EXPECTED BEFORE THE END OF 2012  
AFTER IMPLEMENTED IN JUNE 2012;  
LANDINGS COUNTED FROM MAY 1,  
2011 ONWARDS BUT EXPECTED TO  
BE BELOW PROPOSED ACL & ACT. NO  
CHANGE TO RECREATIONAL  
MANAGEMENT MEASURES  
REQUIRED BASED ON 2010  
RECREATIONAL CATCHES.**

## Commercial

