

# Red Snapper Allocation



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## **Draft Options Paper for Amendment 28 to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico**

**June 2013**



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## ABBREVIATIONS USED IN THIS DOCUMENT

ACL	Annual catch limit
Committee	Reef Fish Committee of the Council
Council	Gulf of Mexico Fishery Management Council
FMP	Fishery Management Plan
gw	gutted weight
IFQ	Individual Fishing Quota
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
mp	million pounds
MRFSS	Marine Recreational Fisheries Survey and Statistics
MRIP	Marine Recreational Information Program
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	Same as NMFS
SEDAR	Southeast Data, Assessment and Review
SEFSC	Southeast Fisheries Science Center
SESSC	Socioeconomic Scientific and Statistical Committee
SERO	Southeast Regional Office
SSC	Scientific and Statistical Committee
ww	whole weight

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# CHAPTER 1. INTRODUCTION

## 1.1 Background

In recent years, the Gulf of Mexico Fishery Management Council (Council) has expressed its intent to evaluate and possibly adjust the allocation of red snapper resources between the commercial and recreational sectors. This includes discussions considering comprehensive changes to the structure of the recreational sector and to sector allocations for several reef fish species. For example, drafts of Reef Fish Amendment 28 have evaluated the allocation of several reef fish species between the commercial and recreational sectors.

The Council's intent to evaluate the respective allocation of red snapper between the commercial and recreational sectors is consistent with NOAA's Catch Share Policy. The Policy recommends that, for all fishery management plans (FMPs), "the underlying harvest allocations to specific fishery sectors (e.g., commercial and recreational) should be revisited on a regular basis, and the basis for the allocation should include consideration of conservation, economic, and social criteria used in specifying optimum yield and in furtherance of the goals of the underlying FMP" (NOAA's Catch Share Policy 2010, page iii).

### *Gulf of Mexico Fishery Management Council*

- Responsible for conservation and management of fish stocks
- Consist of 11 voting members appointed by the Secretary of Commerce; 1 voting member representing each of the five Gulf states, and the National Marine Fisheries Service Regional Administrator
- Develops fishery management plans and amendments; and recommends actions to National Marine Fisheries Service for implementation

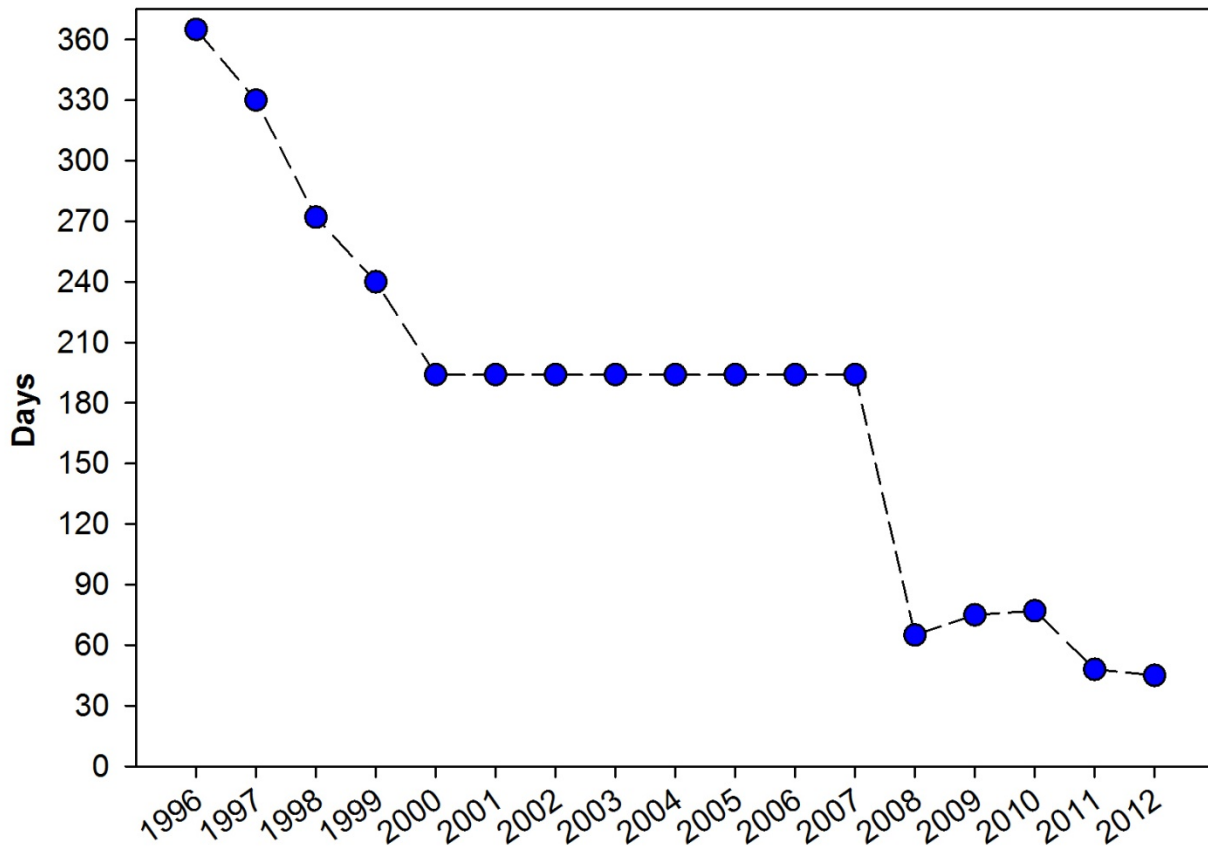
### *National Marine Fisheries Service*

- Responsible for preventing overfishing while achieving optimum yield
- Approves, disapproves, or partially approves Council recommendations
- Implements regulations

In January 2013 a special Reef Fish Committee (Committee) meeting was convened to focus on red snapper management issues. The Committee requested that Amendment 28 focus on red snapper allocation only and decided to address allocation of groupers (i.e., gag, red, and black) in a separate amendment. During the meeting the committee discussed and modified goals and objectives of the Reef Fish FMP. The committee suggested objectives to better focus the

purpose and need of this amendment and requested these changes be made to the document for discussion at the February 2013 Council meeting.

The red snapper stock in the Gulf of Mexico has been declared overfished and in a rebuilding plan since 1997 based on the Status of U.S. Fisheries Report to Congress (<http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm>). The Gulf Council has worked toward rebuilding the red snapper stock since 1997 and overfishing was projected to have ended in 2009. Overfishing was not officially declared to end in the Status of U.S. Fisheries Report until 2012 after the new overfishing definition developed in the Generic Annual Catch Limits and Accountability Measures Amendment was implemented (GMFMC 2011). Since 2007 the recreational red snapper season length has become progressively shorter (Figure 1.1) and overharvests have occurred in every year but one since 2007 (Figure 2.1.1). The commercial sector has the potential for a year-round season and has consistently harvested below its quota since implementation of the Individual Fishing Quota (IFQ) system in 2007.



**Figure 1.1.** Season length (days) that the recreational red snapper season was open from 1996 through 2012 in the Gulf of Mexico.

Recreational fishing season length projections are heavily dependent on estimated red snapper average weights and daily catch rates. As the daily catches and average weight of landed red

snapper increases the season becomes progressively shorter (SERO-LAPP-2012-10). Since 2007, when the rebuilding plan was revised, the estimated average weight of red snapper increased from 3.32 to 7.07 lbs whole weight (ww). In 2013 the projected average weight is estimated to be 7.70 lbs ww per fish. Assuming the full Council approves the recreational quota increase (i.e., 4.146 mp ww), the 2013 season is projected to be 27 days (range 24-30 days). In an effort to increase the recreational fishing season length a reduction in the 2-red snapper per angler per day bag limit was analyzed and presented to the committee. The Special Reef Committee discussed the 2013 projected recreational red snapper fishing season and it was noted that the federal fishing season could become shorter, should any of the Gulf States choose not to adopt compatible federal regulations. Therefore, the Special Reef Fish Committee requested staff develop an accountability measure that would give the National Fisheries Service Regional Administrator the authority to shorten the federal fishing season off a state adopting incompatible regulations should any Gulf state choose not to adopt compatible federal regulations.

Preliminary estimates beyond the 2013 recreational season and discussions by the Committee suggest there is a need to explore alternative methods of managing the red snapper stock as it rebuilds so that it better meets the needs of stakeholders. One method the Council is considering is allocation between the commercial and recreational sectors.

At the Council's request, the Southeast Fishery Science Center (SEFSC) conducted a study evaluating the economic efficiency of the current allocation of red snapper resources between the commercial and recreational sectors. The study was discussed by the Socioeconomic Scientific and Statistical Committee (SESSC) during its October 2012 meeting. Conclusions of the study and recommendations provided by the SESSC were presented before the Council during the October 2012 Council meeting.

In response to the challenges inherent to allocating limited resources between competing interests, the Council established an Ad Hoc Allocation Committee composed of Council members to assist in drafting an allocation policy that would streamline future allocation decisions. The Council's allocation policy was adopted in early 2009 and provides principles, guidelines, and suggested methods for allocating fisheries resources between or within sectors. The principles and guidelines developed by the Council are provided in the appendix.

## **1.2 Management Objectives of the Fishery Management Plan**

In the initial Reef Fish FMP (GMFMC 1981), the Council determined that the overall goal of the FMP is:

*To manage the reef fish fishery of the United States within the waters of the Gulf of Mexico Fishery Management Council jurisdiction to attain the greatest overall benefit to the nation with particular reference to food production and recreational opportunities on the basis of the maximum sustainable yield as reduced by relevant ecological, economic, or social factors.*



In addition to the overall goal, management objectives were developed in the FMP (1-4), and have been added to in subsequent amendments. Amendment 1 (GMFMC 1989) added Objectives 5-11 and Amendment 15 (GMFMC 1997) added Objectives 12-17. The objectives are:

1. To rebuild the declining fish stocks wherever they occur within the fishery.
2. To establish a fishery reporting system for monitoring the reef fish fishery.
3. To conserve and increase reef fish habitats in appropriate areas and to provide protection for juveniles while protecting existing and new habitats.
4. To minimize conflicts between user groups of the resource and conflicts for space.
5. The primary objective of the FMP shall be to stabilize long term population levels of all reef fish species by establishing a certain survival rate of biomass into the stock of spawning age to achieve at least 20 percent spawning stock biomass per recruit (SSBR).
6. To reduce user conflicts and near shore fishing mortality.
7. To re-specify the reporting requirements necessary to establish a database for monitoring the reef fish fishery and evaluating management actions.
8. To revise the definitions of the fishery management unit and fishery to reflect the current species composition of the reef fish fishery.
9. To revise the definition of optimum yield to allow specification at the species level.
10. To encourage research on the effects of artificial reefs.
11. To maximize net economic benefits from the reef fish fishery.
12. To increase the stability of the red snapper fishery in terms of fishing patterns and markets.
13. To avoid to the extent practicable the "derby" type fishing season.
14. To promote flexibility for the fishermen in their fishing operations.
15. To provide for cost-effective and enforceable management of the fishery.
16. To optimize, to the extent practicable and allowed by law, net benefits from the fishery.
17. To reduce the harvesting capacity of the red snapper fleet in an equitable manner utilizing demonstrated historical dependence on the red snapper resource as a criterion.

Discussion: The management measures of this amendment would contribute toward achieving the overall goal of the FMP and many of the FMP objectives. The Committee reviewed the objectives and identified Objectives 11, 12, 13, 14, and 16 as most relevant to this action. In their review, they recommended Objective 11 be modified to read “To maximize net *socioeconomic* benefits from the reef fish fishery.” In their discussion, the committee identified one of the major problems for the red snapper recreational sector was the sector needed more fishing days. With this in mind, the committee recommended that a new FMP objective be added that reads as follows:

*To maximize the available days to recreational fishermen.*

As mentioned in the introduction, the recreational season is getting shorter despite the use of other management tools to manage recreational red snapper fishing. This is creating a situation where recreational red snapper fishing is becoming less sustainable or viable, particularly for the for-hire sector. Given these concerns, this amendment would mostly address Objectives 11 (as modified), 12, and 16. Should the allocation be shifted towards the recreational sector, perhaps a more stable fishing season would result, reducing the uncertainty for anglers and for-hire operators and fishermen in planning red snapper fishing trips (Objective 12). This would be consistent with the new objective recommended by the Committee and could be achieved through increasing the quantity of fish allocated to the recreational sector, which would increase the number of days the recreational sector can fish.

### **1.3 Purpose and Need**

The purpose of this action is to reallocate red snapper resources between the commercial and recreational sectors to increase the net benefits from red snapper fishing and increase the stability of the red snapper component of the reef fish fishery, particularly for the recreational sector that has experienced shorter and shorter seasons. The resulting allocation must distribute benefits expected from red snapper resources in a fair and equitable manner. The need for the proposed actions is to prevent overfishing while achieving the optimum yield, particularly with respect to food production and recreational opportunities, while rebuilding the red snapper stock.

## CHAPTER 2. MANAGEMENT ALTERNATIVES

### 2.1 Action 1 – Allocation of Red Snapper

**Alternative 1:** No Action – Maintain the allocation set in Amendment 1 of the Reef Fish Fishery Management Plan. The commercial and recreational red snapper allocations remain at 51% and 49% of the red snapper annual catch limit (ACL)<sup>1</sup>, respectively.

#### Reallocation of TAC

**Alternative 2:** Increase the recreational sector's allocation by<sup>2</sup>

**Option a:** 3 percent. Allocate 48% of the red snapper ACL to the commercial sector and 52% of the ACL to the recreational sector.

**Option b:** 5 percent. Allocate 46% of the red snapper ACL to the commercial sector and 54% of the ACL to the recreational sector.

**Option c:** 10 percent. Allocate 41% of the red snapper ACL to the commercial sector and 59% of the ACL to the recreational sector.

#### Allocation of future TAC Increases

**Alternative 3:** If the red snapper ACL is less than 9.12 million pounds (mp), maintain the commercial and recreational red snapper allocations at 51% and 49% of the red snapper ACL, respectively. After the red snapper ACL reaches 9.12 mp, allocate 75% of ACL increases to the recreational sector and 25% to the commercial sector. Based on projected yields included in the current red snapper stock assessment, resulting allocations to the recreational and commercial sectors are as follows:

Year	Recreational		Commercial	
	Percent	MP	Percent	MP
2013	49%	4.146	51%	4.316
2014	49%	4.429	51%	4.609
2015	50%	4.847	50%	4.777
2016	52%	5.297	48%	4.927
2017	53%	5.637	47%	5.041

<sup>1</sup> The combined red snapper quota (commercial and recreational quotas) is equivalent to the red snapper ACL.

<sup>2</sup> Unless otherwise indicated, specified percentages refer to percentages of the red snapper ACL.

**Alternative 4:** Between 2013 and 2017, gradually reallocate red snapper resources to set the commercial allocation equal to 4.650 million pounds (mp) in 2017. Based on projected yields included in the current red snapper stock assessment, allocations to the recreational and commercial sectors are as follows:

Year	Recreational		Commercial	
	Percent	MP	Percent	MP
2013	51%	4.341	49%	4.121
2014	53%	4.785	47%	4.253
2015	54%	5.239	46%	4.386
2016	56%	5.706	44%	4.518
2017	56%	6.028	44%	4.650

**Alternative 5:** Between 2013 and 2017, allocate 100% red snapper ACL increases to the recreational sector. Based on projections included in the current red snapper stock assessment, allocations to the recreational and commercial sectors are as follows:

Year	Recreational		Commercial	
	Percent	MP	Percent	MP
2013	51%	4.341	49%	4.121
2014	54%	4.917	46%	4.121
2015	57%	5.503	43%	4.121
2016	60%	6.103	40%	4.121
2017	61%	6.557	39%	4.121

## **Discussion**

**Alternative 1** would continue to allocate 49% of the red snapper ACL to the recreational sector and 51% to the commercial sector. This allocation was established in 1990 through Reef Fish Amendment 1 (GMFMC 1989) and was based on the historical averages between sectors for the base period of 1979-1987. Red snapper commercial and recreational landings between 1986 and 2011 are provided in Table 2.1.1. Average percentages landed by each sector are provided in Table 2.1.2.

For the recreational and commercial sectors, the differences between the annual landings and quotas are provided in Figure 2.1.1. The Council has had limited success in consistently constraining the amounts harvested by the commercial and recreational sectors to their allotted share of the red snapper quota. As a result, the effective commercial and recreational allocations, i.e., the actual proportions harvested by each sector, have fluctuated over time. Figures 2.1.2 and 2.1.3 compare the established allocations with the effective allocations for the recreational and commercial sectors, respectively.

**Table 2.1.1.** Commercial and recreational red snapper landings, in pounds whole weight (ww).

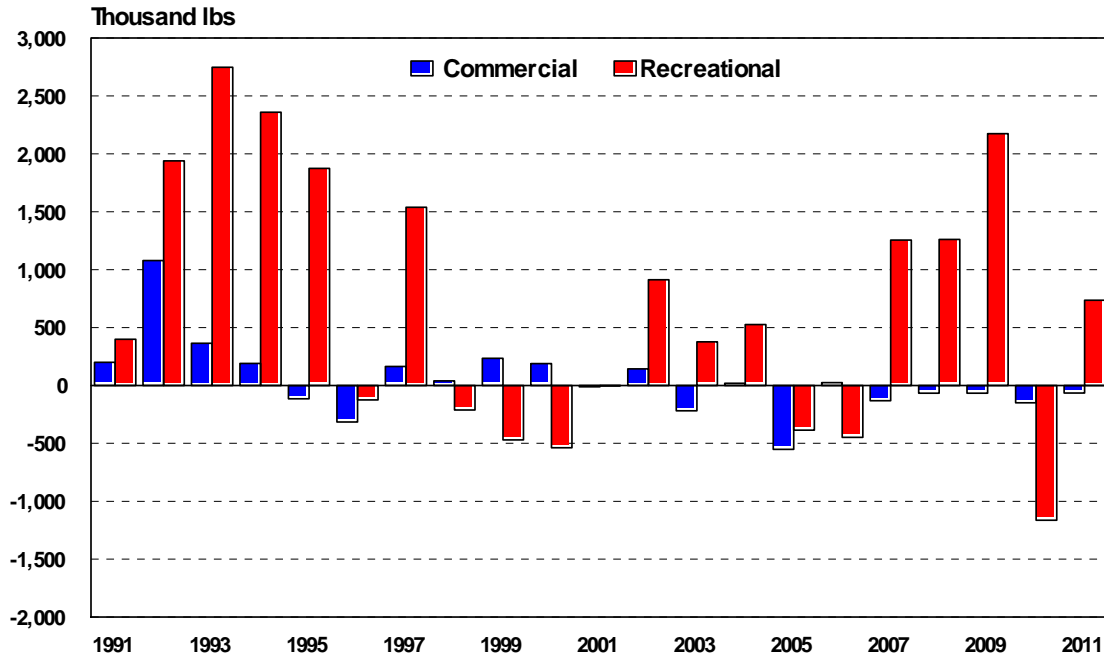
Year	Commercial		Recreational	
	Pounds	Percent	Pounds	Percent
1986	3,748,126	57.5%	2,770,158	42.5%
1987	3,067,646	62.8%	1,814,675	37.2%
1988	3,984,297	60.8%	2,568,170	39.2%
1989	3,102,562	53.9%	2,656,439	46.1%
1990	2,660,318	62.2%	1,613,810	37.8%
1991	2,240,375	48.7%	2,358,366	51.3%
1992	3,118,188	44.4%	3,899,479	55.6%
1993	3,423,412	37.6%	5,686,746	62.4%
1994	3,251,008	38.0%	5,299,109	62.0%
1995	2,945,613	38.0%	4,814,237	62.0%
1996	4,334,123	49.9%	4,346,235	50.1%
1997	4,813,629	44.5%	6,008,391	55.5%
1998	4,689,316	52.4%	4,257,662	47.6%
1999	4,883,581	55.0%	3,999,065	45.0%
2000	4,838,976	55.2%	3,932,040	44.8%
2001	4,638,087	50.9%	4,468,267	49.1%
2002	4,793,233	47.1%	5,383,159	52.9%
2003	4,431,318	47.8%	4,846,962	52.2%
2004	4,669,643	48.3%	4,996,336	51.7%
2005	4,098,218	50.1%	4,083,766	49.9%
2006	4,674,448	53.8%	4,021,293	46.2%
2007	3,182,732	41.8%	4,440,016	58.2%
2008	2,483,603	40.1%	3,711,658	59.9%
2009	2,483,507	34.9%	4,624,577	65.1%
2010	3,392,290	60.2%	2,238,908	39.8%
2011	3,593,848	43.8%	4,602,554	56.2%

Source: NMFS-SERO

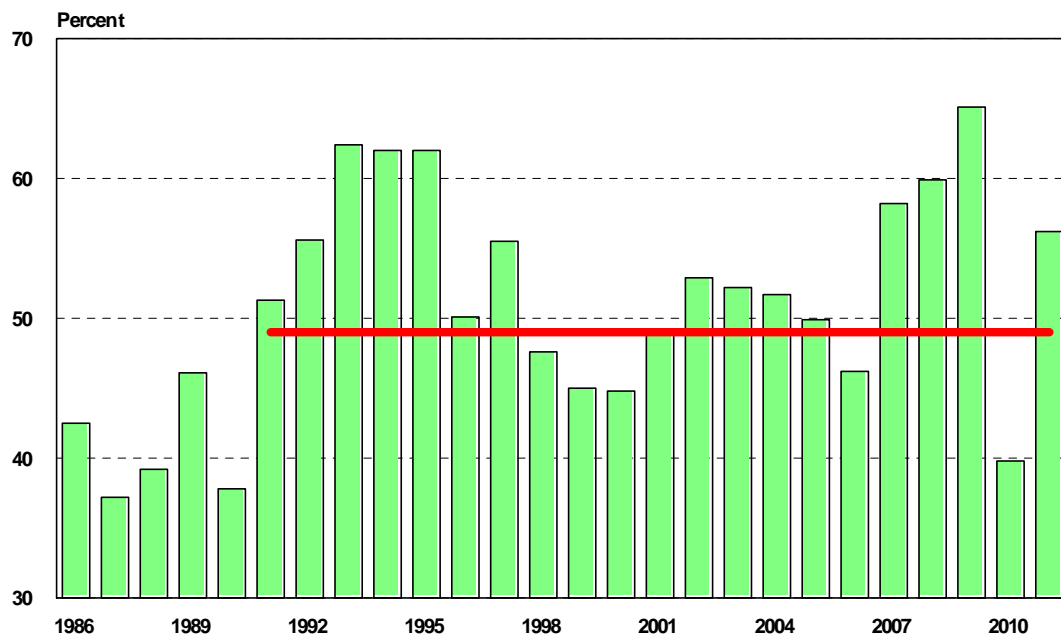
**Table 2.1.2.** Red snapper average percentages landed by the commercial and recreational sectors.

Years	Commercial	Recreational
1986-2011	49.5	51.5%
1997-2011	48.4	51.6%
2004-2011	46.6%	53.4%
2004-2011 M*	47.5%	52.5%

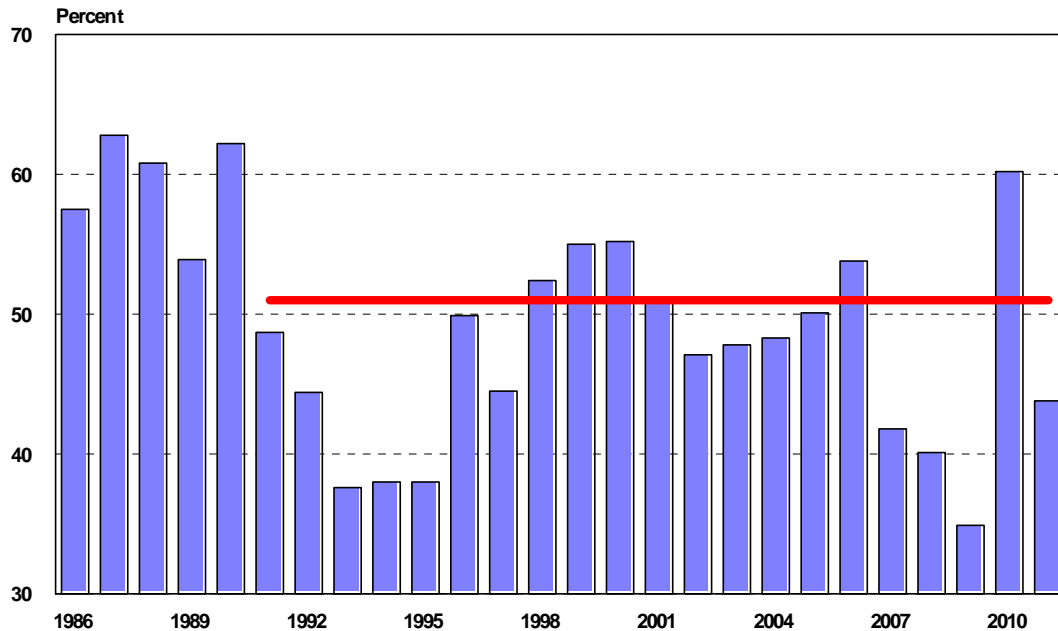
\*2004-2011 M: percentages calculated using Marine Recreational Information Program (MRIP) data for the recreational sector (National Marine Fisheries Service, Fisheries Statistics Division December 10, 2012, pers. comm.); other averages based on Marine Recreational Fisheries Survey and Statistics (MRFSS) recreational data; commercial data from NMFS-SERO.



**Figure 2.1.1.** Differences between annual red snapper landings and quotas by sector, 1990 – 2011. Positive values indicate that landings are greater than the quota; negative values indicate that landings are less than the quota.



**Figure 2.1.2.** Comparison between the effective allocation (proportion of actual red snapper landed by the recreational sector) and the established allocation. The red line represents the recreational established allocation of 49% of the aggregate red snapper quota.



**Figure 2.1.3.** Comparison between the effective allocation (proportion of actual red snapper landed by the commercial sector) and the established allocation. The red line represents the commercial established allocation of 51% of the aggregate red snapper quota.

Based on the status quo aggregate red snapper quota of 8.08 mp, **Alternative 1** would allocate 4.121 mp and 3.959 mp to the commercial and recreational sectors, respectively. For the recreational sector, this quota would correspond to a 26-day fishing season in 2013, approximately. Season lengths reported in this document are estimated following the methodology developed by SERO-LAPP (SERO-LAPP 2012-12) and presented to the Council during its January 2013 Reef Fish Committee meeting. A framework action currently under development could either increase the recreational red snapper quota to 4.145 mp or decrease the recreational quota to 3.316 mp. The 2013 recreational red snapper fishing season that would be expected to result from the increase in recreational quota under consideration is estimated at 27 days, approximately. If the recreational quota is reduced, the resulting 2013 red snapper recreational season is estimated at 22 days, approximately. These estimates assume that the current daily possession limit of 2 red snapper remains unchanged. Keeping all else equal, it follows that reducing the red snapper recreational bag limit would result in a longer fishing season.

**Alternative 2** considers increases to the recreational red snapper allocation by 3%, 5%, and 10% from the status quo (**Alternative 1**). **Options a, b, and c**, would increase the recreational red snapper allocation to 52%, 54%, and 59% of the red snapper ACL, respectively.

Table 2.1.3 provides a summary of the commercial and recreational red snapper quotas that would result from the alternative allocations included in this action. Estimated recreational season lengths for the options considered under **Alternative 2** are presented in Table 2.1.4. **Alternative 2 - Option (c)** would be expected to yield a recreational season of 31 days. Relative

to **Alternative 1, Alternative 2 - Option (c)** would increase the recreational red snapper fishing season length by 5 days.

**Table 2.1.3.** Commercial and recreational red snapper allocations (mp ww) and percent.

	Commercial Sector		Recreational Sector		Amount of change	
	MP	Percent	MP	Percent	MP	Percent
<b>Alternative 1</b>	4.121	51	3.959	49	0	0
Alternative 2(a)	3.878	48	4.202	52	±0.243	±3
Alternative 2(b)	3.717	46	4.363	54	±0.404	±5
Alternative 2(c)	3.313	41	4.767	59	±0.808	±10

**Table 2.1.4.** Recreational red snapper allocations (mp ww) and estimated season lengths (days).

	Quota ( mp)	Season Length (days)
<b>Alternative 1</b>	3.959	26
Alternative 2(a)	4.202	27
Alternative 2(b)	4.363	28
Alternative 2(c)	4.767	31

**Alternative 3** would continue to allocate 51% of the red snapper ACL to the commercial sector and 49% of the red snapper ACL to the recreational sector as long as the aggregate red snapper quota is below a predetermined threshold, selected by the Council. For example, a reallocation of red snapper between the sectors could be considered once the red snapper aggregate quota reaches a baseline value of 9.12 mp, which was the total allowable catch in 2006. Once the threshold is reached, 75% of future increases in the red snapper ACL would be allocated to the recreational sector and 25% to the commercial sector. Season lengths that would be expected to result from **Alternative 3** cannot be estimated because the number of years needed to reach the predetermined baseline as well as the magnitude of future red snapper ACL increases are not known at this time.

**Alternative 4** would gradually reallocate the red snapper ACL between 2013 and 2017 and cap the commercial sector allocation at 4.650 mp, resulting in commercial and recreational allocations of 44% and 56% of the red snapper ACL in 2017, respectively. Estimated recreational red snapper season lengths for the best and worst case scenarios are provided in Table 2.1.5. Under the best case scenario, **Alternative 4** would be expected to yield a red snapper recreational fishing season of 34 days in 2017.



**Table 2.1.5.** Alternative 4 recreational red snapper allocations (mp ww) and estimated season lengths (days). Low and high season lengths correspond to scenario 2 and scenario 4 estimates provided in SERO-LAPP-2012-12, respectively.

Year	Quota		Season Length	
	Percent	MP	Low	High
2013	51%	4.341	30	30
2014	53%	4.785	29	31
2015	54%	5.239	29	32
2016	56%	5.706	28	33
2017	56%	6.028	27	34

**Alternative 5** would allocate all red snapper ACL increases to the recreational sector between 2013 and 2017, resulting in commercial and recreational allocations of 39% and 61% of the red snapper ACL in 2017, respectively. Estimated recreational red snapper season lengths for the best and worst case scenarios are provided in Table 2.1.6. Under the best case scenario, **Alternative 5** would be expected to yield a red snapper recreational fishing season of 37 days in 2017.

For **Alternatives 4** and **5**, percentages of the red snapper ACL allocated to the recreational and commercial sectors as well as the season length estimates provided are based on yield projections from a previous red snapper stock assessment. Therefore, allocation percentages and estimated season lengths are expected to change once results of the ongoing red snapper assessment (SEDAR 31) are available.

**Table 2.1.6.** Alternative 5 recreational red snapper allocations (mp ww) and estimated season lengths (days). Low and high season lengths correspond to scenario 2 and scenario 4 estimates provided in SERO-LAPP-2012-12, respectively.

Year	Quota		Season Length	
	Percent	MP	Low	High
2013	51%	4.341	30	30
2014	54%	4.917	30	32
2015	57%	5.503	30	34
2016	60%	6.103	30	36
2017	61%	6.557	30	37

**Alternatives 3, 4, and 5** consider several ways of adjusting the status quo allocation of red snapper resources between the commercial and recreational sectors by allocating only future increases to the red snapper ACL. This amendment does not include management alternatives that would adjust allocations in the event of a decrease in the red snapper ACL. Council guidance would aid the development of alternatives applicable to potential decreases in the ACL. As illustrated in Figures 2.1.2 and 2.1.3, percentages of the red snapper aggregate quota harvested by the commercial and recreational sectors i.e., the effective allocations, are different from their respective allotted shares. Alongside allocation discussions and reallocation

decisions, more consideration is warranted for management measures that would minimize the differences between the effective allocations and the allocation established by the Council.

Red snapper quotas beyond 2013 are not known at this time. The red snapper benchmark assessment is currently underway and is expected to be completed in mid-2013. In the meantime, allocation discussions and potential reallocation decisions would not have the benefit of the assessment results and Scientific and Statistical Committee (SSC) recommendations.

Recent allocation studies completed by the Southeast Fishery Science Center and reviewed by the Socioeconomic SSC (SESSC) have concluded that existing allocations between the commercial and recreational sectors of several reef fish resources, including red snapper, are not economically efficient. In a 2012 study evaluating the economic efficiency of the allocation of red snapper resources, Carter and Agar<sup>3</sup> compared estimated commercial and recreational marginal willingness to pay for red snapper and indicated that the relative magnitude of the estimates suggests that economic efficiency could potentially be improved by reallocating red snapper resources. The SESSC reviewed and accepted the findings and conclusions of the study. The SESSC further stated that although the study results indicated that the marginal value of a recreationally caught red snapper is likely higher than the marginal value of a commercially caught red snapper, given the data that was used, e.g., data collection time periods (recreational data collected from a 2003 survey; commercial data collected during the last 5 years of the red snapper IFQ program), it cannot specify the potential efficiency gains from possible quota shifts because it does not know how the marginal valuations would change with the switch.

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<sup>3</sup> Carter and Agar presentation to the SESSC in October 2012 titled “Are the 2012 allocations of red snapper in the Gulf of Mexico economically efficient?”

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# APPENDIX A

## Gulf of Mexico Fishery Management Council Fishery Allocation Policy

The allocation policy presented herein was developed by the Gulf of Mexico Fishery Management Council to provide principles, guidelines, and suggested methods for allocation that would facilitate future allocation and reallocation of fisheries resources between or within fishery sectors.

Issues considered in this allocation policy include principles based on existing regulatory provisions, procedures to request and initiate (re)allocation, (re)allocation review frequency, tools and methods suggested for evaluating alternative (re)allocations.

### 1. Principles for Allocation

- a. Conservation and management measures shall not discriminate between residents of different states.
- b. Allocation shall:
  - (1) be fair and equitable to fishermen and fishing sectors;
    - (i) fairness should be considered for indirect changes in allocation
    - (ii) any harvest restrictions or recovery benefits be allocated fairly and equitably among sectors
  - (2) promote conservation
    - (i) connected to the achievement of OY
    - (ii) furtherance of a legitimate FMP objective,
    - (iii) promotes a rational, more easily managed use
  - (3) ensure that no particular individual, corporation, or other entity may acquire an excessive share.
- c. Shall consider efficient utilization of fishery resources but:
  - (1) should not just redistribute gains and burdens without an increase in efficiency
  - (2) prohibit measures that have economic allocation as its sole purpose.
- d. Shall take into account: the importance of fishery resources to fishing communities by utilizing economic and social data in order to:
  - (1) provide for the sustained participation of fishing communities
  - (2) minimize adverse economic impacts on fishing communities.

- e. Any fishery management plan, plan amendment, or regulation submitted by the Gulf Council for the red snapper fishery shall contain conservation and management measures that:
  - (1) establish separate quotas for recreational fishing (including charter fishing) and commercial fishing.
  - (2) prohibit a sector (i.e., recreational or commercial) from retaining red snapper for the remainder of the season, when it reaches its quota.
  - (3) ensure that the recreational and commercial quotas reflect allocation among sectors and do not reflect harvests in excess of allocations.

## 2. Guidelines for Allocation

- a. All allocations and reallocations must be consistent with the Gulf of Mexico Fishery Management Council's principles for allocation.
- b. An approved Council motion constitutes the only appropriate means for requesting the initiation of allocation or reallocation of a fishery resource. The motion should clearly specify the basis for, purpose and objectives of the request for (re)allocation.
- c. The Council should conduct a comprehensive review of allocations within the individual FMPs at intervals of no less than five years.
- d. Following an approved Council motion to initiate an allocation or reallocation, the Council will suggest methods to be used for determining the new allocation. Methods suggested must be consistent with the purpose and objectives included in the motion requesting the initiation of allocation or reallocation.
- e. Changes in allocation of a fishery resource may, to the extent practicable, account for projected future socio-economic and demographic trends that are expected to impact the fishery.
- f. Indirect changes in allocation, i.e., shifts in allocation resulting from management measures, should be avoided or minimized to the extent possible.

## 3. Suggested Methods for Determining (Re)Allocation

- a. Market-based Allocation
  - (1) Auction of quota
  - (2) Quota purchases between commercial and recreational sectors
    - (i) determine prerequisites and conditions:
      - (a) quota or tags or some other mechanism required in one or both sectors
      - (b) mechanism to broker or bank the purchases and exchanges
      - (c) annual, multi-year, or permanent
      - (d) accountability for purchased or exchanged quota in the receiving sector

b. Catch-Based (and mortality) Allocation

- (1) historical landings data
  - (i) averages based on longest period of credible records
  - (ii) averages based on a period of recent years
  - (iii) averages based on total fisheries mortality (landings plus discard mortality) by sector
  - (iv) allocations set in a previous FMP
  - (v) accountability (a sector's ability to keep within allocation)

c. Socioeconomic-based Allocation

- (1) socio-economic analyses
  - (i) net benefits to the nation
  - (ii) economic analysis limited to direct participants
  - (iii) economic impact analysis (direct expenditures and multiplier impacts)
  - (iv) social impact analysis
  - (v) fishing communities
  - (vi) participation trends
  - (vii) "efficiency" analysis
    - (a) lowest possible cost for a particular level of catch;
    - (b) harvest OY with the minimum use of economic inputs

d. Negotiation-Based Allocation

- (1) Mechanism for sectors to agree to negotiation and select representatives
- (2) Mechanism to choose a facilitator
- (3) Negotiated agreement brought to Council for normal FMP process of adoption and implementation.

# Appendix B

## Red Snapper Allocation Scenarios

Scenarios presented in this section are provided for illustrative purposes only. For all scenarios, the status quo red snapper ACL is 8.46 million pounds (mp). It corresponds to the ACL indicated in the recently approved red snapper framework action setting the ACL for 2013 (Federal Register, May 29, 2013 [78 FR 32179]). Based on the status quo ACL and allocation, the commercial and recreational red snapper allocations for 2013 would be 4.315 mp and 4.145 mp, respectively.

Scenario 1 is based on 2013, 2014, and 2015 red snapper ACLs of 13.5 mp, 11.9 mp, and 10.6 mp, respectively. Scenario 2 is based on a constant red snapper ACL of 11.9 mp for 2013 and 2014. For scenarios 1 and 2, alternative allocations between the sectors are summarized in Tables 1 and 2, respectively. These scenarios are based on ABC recommendations made by the SSC during the May 29-31 meeting.

### I – Management Alternatives under Scenario 1

Based on red snapper ACLs considered in Scenario 1, adjustments to alternative allocations included in the draft options paper for Reef Fish Amendment 28 discussed during the February 2013 Council meeting would result in the following management alternatives:

#### Action 1 – Allocation of Red Snapper

**Alternative 1:** No Action – Maintain the allocation set in Amendment 1 of the Reef Fish Fishery Management Plan. The commercial and recreational red snapper allocations remain at 51% and 49% of the red snapper annual catch limit (ACL)<sup>4</sup>, respectively.

#### Reallocation of TAC

**Alternative 2:** Increase the recreational sector’s allocation by<sup>5</sup>

**Option a:** 3 percent. Allocate 48% of the red snapper ACL to the commercial sector and 52% of the ACL to the recreational sector. Between 2013 and 2015, the resulting commercial and recreational ACLs would be as follows:

Year	Commercial		Recreational	
	ACL	Percent	ACL	Percent
2013	6.480	48	7.020	52
2014	5.712	48	6.188	52
2015	5.088	48	5.512	52

<sup>4</sup> The combined red snapper quota (commercial and recreational quotas) is equivalent to the red snapper ACL.

<sup>5</sup> Unless otherwise indicated, specified percentages refer to percentages of the red snapper ACL.



**Option b: 5 percent.** Allocate 46% of the red snapper ACL to the commercial sector and 54% of the ACL to the recreational sector. Between 2013 and 2015, the resulting commercial and recreational ACLs would be as follows:

Year	Commercial		Recreational	
	ACL	Percent	ACL	Percent
2013	6.210	46	7.290	54
2014	5.474	46	6.426	54
2015	4.876	46	5.724	54

**Option c: 10 percent.** Allocate 41% of the red snapper ACL to the commercial sector and 59% of the ACL to the recreational sector. Between 2013 and 2015, the resulting commercial and recreational ACLs would be as follows:

Year	Commercial		Recreational	
	ACL	Percent	ACL	Percent
2013	5.535	41	7.965	59
2014	4.879	41	7.021	59
2015	4.346	41	6.254	59

**Allocation of future TAC Increases**

**Alternative 3:** If the red snapper ACL is less than 9.12 million pounds (mp), maintain the commercial and recreational red snapper allocations at 51% and 49% of the red snapper ACL, respectively. After the red snapper ACL reaches 9.12 mp, allocate 75% of ACL increases to the recreational sector and 25% to the commercial sector. Resulting allocations to the recreational and commercial sectors are as follows:

Year	Total ACL	ACL Increase	Commercial		Recreational	
			ACL	Percent	ACL	Percent
2013	13.5	5.04	5.746	42.6	7.754	57.4
2014	11.9	3.44	5.346	44.9	6.554	55.1
2015	10.6	2.14	5.021	47.4	5.579	52.6

**Alternative 4:** Between 2013 and 2015, gradually reallocate red snapper resources to set the commercial allocation equal to 4.651 million pounds (mp) in 2015. Resulting allocations to the recreational and commercial sectors are as follows:

Year	Total ACL	ACL Increase	Commercial		Recreational	
			ACL	Percent	ACL	Percent
2013	13.5	5.04	4.315	32.0	9.185	68.0
2014	11.9	3.44	4.482	37.7	7.418	62.3
2015	10.6	2.14	4.651	43.9	5.950	56.1

**Alternative 5:** After the red snapper ACL reaches 9.12 mp, allocate 100% red snapper ACL increases to the recreational sector between 2013 and 2015. Based on projections included in the current red snapper stock assessment, allocations to the recreational and commercial sectors are as follows:

Year	Total ACL	ACL Increase	Commercial		Recreational	
			ACL	Percent	ACL	Percent
2013	13.5	5.04	4.651	34.5	8.849	65.5
2014	11.9	3.44	4.651	39.1	7.249	60.9
2015	10.6	2.14	4.651	43.9	5.949	56.1

## II – Management Alternatives under Scenario 2

Based on red snapper ACLs considered in Scenario 2, adjustments to management alternatives included in the draft options paper for Reef Fish Amendment 28 discussed during the February 2013 Council meeting would result in the following alternatives:

### Action 1 – Allocation of Red Snapper

**Alternative 1:** No Action – Maintain the allocation set in Amendment 1 of the Reef Fish Fishery Management Plan. The commercial and recreational red snapper allocations remain at 51% and 49% of the red snapper annual catch limit (ACL)<sup>6</sup>, respectively.

### Reallocation of TAC

**Alternative 2:** Increase the recreational sector’s allocation by<sup>7</sup>

**Option a:** 3 percent. Allocate 48% of the red snapper ACL to the commercial sector and 52% of the ACL to the recreational sector. Between 2013 and 2014, the resulting commercial and recreational ACLs would be as follows:

Year	Commercial		Recreational	
	ACL	Percent	ACL	Percent
2013	5.712	48	6.188	52
2014	5.712	48	6.188	52

**Option b:** 5 percent. Allocate 46% of the red snapper ACL to the commercial sector and 54% of the ACL to the recreational sector. Between 2013 and 2014, the resulting commercial and recreational ACLs would be as follows:

Year	Commercial		Recreational	
	ACL	Percent	ACL	Percent
2013	5.474	46	6.426	54
2014	5.474	46	6.426	54

<sup>6</sup> The combined red snapper quota (commercial and recreational quotas) is equivalent to the red snapper ACL.

<sup>7</sup> Unless otherwise indicated, specified percentages refer to percentages of the red snapper ACL.

**Option c: 10 percent.** Allocate 41% of the red snapper ACL to the commercial sector and 59% of the ACL to the recreational sector. Between 2013 and 2014, the resulting commercial and recreational ACLs would be as follows:

Year	Commercial		Recreational	
	ACL	Percent	ACL	Percent
2013	4.879	41	7.021	59
2014	4.879	41	7.021	59

**Allocation of future TAC Increases**

**Alternative 3:** If the red snapper ACL is less than 9.12 million pounds (mp), maintain the commercial and recreational red snapper allocations at 51% and 49% of the red snapper ACL, respectively. After the red snapper ACL reaches 9.12 mp, allocate 75% of ACL increases to the recreational sector and 25% to the commercial sector. Resulting allocations to the recreational and commercial sectors are as follows:

Year	Total ACL	ACL Increase	Commercial		Recreational	
			ACL	Percent	ACL	Percent
2013	11.9	3.44	5.346	44.9	6.554	55.1
2014	11.9	3.44	5.346	44.9	6.554	55.1

**Alternative 4:** Between 2013 and 2015, gradually reallocate red snapper resources to set the commercial allocation equal to 4.651 million pounds (mp) in 2014. Resulting allocations to the recreational and commercial sectors are as follows:

Year	Total ACL	ACL Increase	Commercial		Recreational	
			ACL	Percent	ACL	Percent
2013	11.9	3.44	4.315	36.3	7.585	63.7
2014	11.9	3.44	4.651	39.1	7.249	60.9

**Alternative 5:** After the red snapper ACL reaches 9.12 mp, allocate 100% red snapper ACL increases to the recreational sector between 2013 and 2014. Based on projections included in the current red snapper stock assessment, allocations to the recreational and commercial sectors are as follows:

Year	Total ACL	ACL Increase	Commercial		Recreational	
			ACL	Percent	ACL	Percent
2013	11.9	3.44	4.651	39.1	7.249	60.9
2014	11.9	3.44	4.651	39.1	7.249	60.9

### III- Tables

Table 1: Commercial and Recreational ACLs based on Scenario 1; ACLs are in million pounds.

Alternative	Year	Total ACL	ACL Increase	Commercial		Recreational	
				ACL	Percent	ACL	Percent
<b>Alternative 1:</b> Status Quo	2013	13.5	5.04	6.885	51.0	6.615	49.0
	2014	11.9	3.44	6.069	51.0	5.831	49.0
	2015	10.6	2.14	5.406	51.0	5.194	49.0
<b>Alternative 2(a):</b> Increase the recreational sector's allocation by <b>3%</b>	2013	13.5	5.04	6.480	48.0	7.020	52.0
	2014	11.9	3.44	5.712	48.0	6.188	52.0
	2015	10.6	2.14	5.088	48.0	5.512	52.0
<b>Alternative 2(b):</b> Increase the recreational sector's allocation by <b>5%</b>	2013	13.5	5.04	6.210	46.0	7.290	54.0
	2014	11.9	3.44	5.474	46.0	6.426	54.0
	2015	10.6	2.14	4.876	46.0	5.724	54.0
<b>Alternative 2(c):</b> Increase the recreational sector's allocation by <b>10%</b>	2013	13.5	5.04	5.535	41.0	7.965	59.0
	2014	11.9	3.44	4.879	41.0	7.021	59.0
	2015	10.6	2.14	4.346	41.0	6.254	59.0
<b>Alternative 3:</b> After RS TAC reaches 9.12 mp, allocate 75% of ACL increases to the recreational sector	2013	13.5	5.04	5.746	42.6	7.754	57.4
	2014	11.9	3.44	5.346	44.9	6.554	55.1
	2015	10.6	2.14	5.021	47.4	5.579	52.6
<b>Alternative 4:</b> Set a commercial ACL of 4.651 mp by 2015	2013	13.5	5.04	4.315	32.0	9.185	68.0
	2014	11.9	3.44	4.482	37.7	7.418	62.3
	2015	10.6	2.14	4.651	43.9	5.950	56.1
<b>Alternative 5:</b> After RS TAC reaches 9.12 mp, allocate all ACL increases to the recreational sector	2013	13.5	5.04	4.651	34.5	8.849	65.5
	2014	11.9	3.44	4.651	39.1	7.249	60.9
	2015	10.6	2.14	4.651	43.9	5.949	56.1

Table 2: Commercial and Recreational ACLs based on Scenario 2; ACLs are in million pounds.

Alternative	Year	Total ACL	ACL Increase	Commercial		Recreational	
				ACL	Percent	ACL	Percent
<b>Alternative 1: Status Quo</b>	2013	11.9	3.44	6.069	51.0	5.831	49.0
	2014	11.9	3.44	6.069	51.0	5.831	49.0
<b>Alternative 2(a):</b> Increase the recreational sector's allocation by <b>3%</b>	2013	11.9	3.44	5.712	48.0	6.188	52.0
	2014	11.9	3.44	5.712	48.0	6.188	52.0
<b>Alternative 2(b):</b> Increase the recreational sector's allocation by <b>5%</b>	2013	11.9	3.44	5.474	46.0	6.426	54.0
	2014	11.9	3.44	5.474	46.0	6.426	54.0
<b>Alternative 2(c):</b> Increase the recreational sector's allocation by <b>10%</b>	2013	11.9	3.44	4.879	41.0	7.021	59.0
	2014	11.9	3.44	4.879	41.0	7.021	59.0
<b>Alternative 3:</b> After RS TAC reaches 9.12 mp, allocate 75% of ACL increases to the rec sector	2013	11.9	3.44	5.346	44.9	6.554	55.1
	2014	11.9	3.44	5.346	44.9	6.554	55.1
<b>Alternative 4:</b> Set a commercial ACL of 4.651 mp by 2014	2013	11.9	3.44	4.315	36.3	7.585	63.7
	2014	11.9	3.44	4.651	39.1	7.249	60.9
<b>Alternative 5:</b> After RS TAC reaches 9.12 mp, allocate all ACL increases to the rec sector	2013	11.9	3.44	4.651	39.1	7.249	60.9
	2014	11.9	3.44	4.651	39.1	7.249	60.9