

Red Snapper Allocation



Draft Options Paper

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ABBREVIATIONS USED IN THIS DOCUMENT

ACL	annual catch limit
ACT	annual catch target
AP	advisory panel
CCC	Council Coordination Committee
CHTS	Coastal Household Telephone Survey
Council	Gulf of Mexico Fishery Management Council
EFP	exempted fishing permit
FES	Fishing Effort Survey
FMC	Fishery Management Council
FMP	Fishery Management Plan
Gulf	Gulf of Mexico
IFQ	individual fishing quota
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
mp	million pounds
MRIP	Marine Recreational Information Program
MFRSS	Marine Recreational Fisheries Statistics Survey
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OY	optimum yield
RA	Regional Administrator
SEDAR	Southeast Data, Assessment and Review
SEFSC	Southeast Fisheries Science Center
SSBR	spawning stock biomass per recruit
TAC	total allowable catch
ww	whole weight

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CHAPTER 1. INTRODUCTION

1.1 Background

At the January 2018 meeting, the Gulf of Mexico Fishery Management Council (Council) passed a motion to develop a scoping document to evaluate the allocations of red snapper, taking into account previous deliberations in Amendment 28 and any new information and that considers a broad range of social, economic, data correction, and management factors. The Council's motion was based on a recommendation from the Ad Hoc Red Snapper Private Angler Advisory Panel (AP), which was convened in January 2018 prior to the Council meeting. The AP voted unanimously to recommend the Council reconsider red snapper allocations considering all relevant factors including, but not limited to the following: social, economic, historical catch, and increased participation of the recreational sector. While economics may be considered for allocation decisions, it may not serve as the sole purpose for allocation, as noted in National Standard 5 of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) which states that "Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose."

Currently, red snapper is allocated between the commercial and recreational sectors as well as between the federal for-hire and private angling components within the recreational sector. Evaluating these allocations is consistent with the National Oceanic and Atmospheric Administration's (NOAA) Catch Share Policy.¹ The Policy recommends that, for all fishery management plans (FMP), "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", and additionally states that "Councils should periodically review all catch share and non-catch share programs to ensure that management goals are specified, measurable, tracked and used to gauge whether a program is meeting its goals and objectives." (NOAA's Catch Share Policy 2010, page iii).

Review of Red Snapper Allocation Amendments

The final rule for **Amendment 1** (GMFMC 1989) to the Reef Fish FMP was effective in February 1990. The amendment specified a framework procedure for setting the total allowable catch (TAC) to allow for annual management changes. A part of that specification was to establish a species' allocation. The allocations were based on the percentage of total landings during the base period of 1979-1987. For red snapper, the commercial sector landed 51% and the recreational sector landed 49% of red snapper over the base period, hence the current 51% commercial, 49% recreational allocation. **Amendment 1** also established a commercial quota allowing the Regional Administrator (RA) to close commercial red snapper fishing when the

¹http://www.nmfs.noaa.gov/sfa/domes_fish/catchshare/index.htm

quota was caught. The recreational quota was established through a 1997 regulatory amendment (GMFMC 1995) with a final rule effective in October 1997. Prior to 1997, the recreational sector had exceeded its allocation of the red snapper TAC, though the overages were declining through more restrictive recreational management measures. With the establishment of a recreational quota in **Amendment 1**, the RA was authorized to close the recreational season when the quota is reached, as required by the Magnuson-Stevens Act. During the first 3 years of the recreational quota (1997-1999), season closures were announced just a few weeks in advance due to processing lags in the monitoring of landings data. This caused disruptions for both the for-hire industry and private anglers. Beginning in 2000, the National Marine Fisheries Service (NMFS) began the current process of projecting the season length and closing date prior to the season opening. However, due to the difficulties in estimating angler effort, the recreational quota continued to be exceeded on a regular basis. Recreational and commercial landings of red snapper are shown in Table 1.1.1. NMFS, in association with state agencies, collects statistics on recreational landings for the Gulf of Mexico (Gulf) states with the Marine Recreational Information Program (MRIP). Previously, these statistics were collected with the Marine Recreational Fisheries Statistics Survey (MRFSS), which started in 1979 and then was modified in 2013 and renamed MRIP. Calibration factors were developed between MRFSS and MRIP to make the surveys comparable, and will be applied to the historical landings of managed species as they become available. Recent recreational landings (2004 to present) are based on recalibrated MRIP data, and in several years the size of the recreational overage compared to the quotas is much larger than the percent overage from before the calibration. This is because the quota was calculated and implemented a few years prior to the recalibration of the recreational landings data.

Amendment 40 (GMFMC 2014) divided the recreational red snapper quota into two component sub-quotas, with the federal for-hire component allocated 42.3% of the recreational quota and the private angling component allocated 57.7% of the recreational quota. Landings by the private angling and federal for-hire components are displayed in Table 1.1.2. The number of days open for red snapper fishing in federal waters for the two components are shown in Table 1.1.3, along with those for the commercial sector. This division was to sunset three calendar years after implementation. However, **Amendment 45** (GMFMC 2016) extended the separate management of the federal for-hire and private angling components for an additional 5 years. Thus, the management of the separate components extends through December 31, 2022.

Table 1.1.1. Recreational and commercial red snapper landings and quota (millions of pounds whole weight [mp ww]).

Year	Commercial Sector		Recreational Sector	
	Commercial Landings	Commercial Quota	Recreational Landings	Recreational Quota (ACL)
1986	3.700	N/A	3.482	N/A
1987	3.069	N/A	2.074	N/A
1988	3.960	N/A	3.135	N/A
1989	3.098	N/A	2.937	N/A
1990	2.650	3.10	1.619	N/A
1991	2.213	2.04	2.890	1.96
1992	3.106	2.04	4.548	1.96
1993	3.374	3.06	7.045	2.94
1994	3.222	3.06	6.028	2.94
1995	2.934	3.06	5.409	2.94
1996	4.313	4.65	5.286	4.47
1997	4.810	4.65	6.690	4.47
1998	4.680	4.65	4.827	4.47
1999	4.876	4.65	4.905	4.47
2000	4.837	4.65	4.710	4.47
2001	4.625	4.65	5.245	4.47
2002	4.779	4.65	6.522	4.47
2003	4.409	4.65	6.094	4.47
2004	4.651	4.65	6.460	4.47
2005	4.096	4.65	4.676	4.47
2006	4.649	4.65	4.131	4.47
2007	3.183	3.31	5.809	3.19
2008	2.484	2.55	4.056	2.45
2009	2.484	2.55	5.597	2.45
2010	3.392	3.54	2.647	3.40
2011	3.595	3.66	6.734	3.87
2012	4.036	4.12	7.524	3.96
2013	5.449	5.61	9.703	5.39
2014	5.568	5.61	3.835	5.39
2015	7.184	7.29	5.960	7.01
2016	6.724	7.12	7.436	6.84
2017	6.979	7.01	8.863	6.73

Note: The 2016 recreational quota is based on the reallocation implemented through Amendment 28, which was vacated on March 3, 2017. The 2017 recreational quota is based on the previous sector allocation of 49% recreational and a quota payback from an overage in 2016.

Sources: Southeast Fisheries Science Center (SEFSC) recreational ACL data (June 2018), with SEFSC SEDAR 31 Update (2014) Access Point Angler Intercept Survey adjustments.

Southeast Regional Office (SERO) IFQ database.

http://sero.nmfs.noaa.gov/sustainable_fisheries/ifq/documents/pdfs/commercialquotascatchallowancetable.pdf

SERO Catch Shares Program database.

<https://portal.southeast.fisheries.noaa.gov/cs/documents/pdf/CommercialQuotasCatchAllowanceTable.pdf>

Commercial quotas/landings in gutted weight were multiplied by 1.11 to convert to ww.

Table 1.1.2. Red snapper landings (millions of pounds whole weight [mp ww]) by the private angling and federal for-hire components.

Recreational Sector Landings		
Year	Private Angling Component	Federal For-Hire Component
1986	998,293	2,483,718
1987	703,341	1,370,826
1988	1,489,226	1,645,814
1989	1,192,701	1,744,572
1990	642,472	976,778
1991	859,336	2,031,152
1992	2,366,753	2,180,804
1993	2,956,690	4,088,115
1994	2,459,439	3,568,805
1995	2,239,101	3,170,397
1996	1,775,334	3,511,112
1997	2,769,613	3,920,064
1998	1,498,601	3,328,792
1999	2,663,289	2,241,599
2000	2,113,756	2,596,566
2001	2,846,830	2,397,973
2002	3,037,152	3,484,593
2003	2,987,156	3,106,886
2004	3,198,600	3,261,644
2005	2,175,730	2,500,188
2006	1,692,246	2,438,886
2007	3,142,991	2,665,802
2008	2,298,321	1,757,553
2009	3,362,349	2,234,508
2010	1,784,709	862,660
2011	4,891,368	1,842,739
2012	5,284,921	2,239,320
2013	8,145,917	1,556,985
2014	3,268,558	566,878
2015	3,806,474	2,153,677
2016	5,293,635	2,142,815
2017	6,593,233	2,269,538

Sources: Southeast Fisheries Science Center (SEFSC) recreational ACL data (June 2018), with SEFSC SEDAR 31 Update (2014) Access Point Angler Intercept Survey adjustments.

Table 1.1.3. Number of days open for red snapper fishing in federal waters for the recreational and commercial sectors.

Number of Days Open in Federal Waters		
Year	Recreational Sector	Commercial Sector
1996	365	86
1997	330	71
1998	272	67
1999	240	64
2000	194	59
2001	194	70
2002	194	81
2003	194	84
2004	194	95
2005	194	120
2006	194	115
2007	194	365
2008	65	365
2009	75	365
2010	77	365
2011	48	365
2012	46	365
2013	42	365
2014	9	365
2015	10 (private angling) 44 (federal for-hire)	365
2016	11 (private angling) 46 (federal for-hire)	365
2017	42 (private angling) 49 (federal for-hire)	365
2018	* (private angling) 51 (federal for-hire)	365

*NOAA Fisheries has issued exempted fishing permits, which allow each Gulf state to set their own season for the red snapper private angling component in state and federal waters during 2018 and 2019.

Note: Beginning in 2014, the season length was estimated based on an ACT, reduced from the recreational sector ACL (quota) by 20%.

Implemented in May 2016, **Amendment 28** (GMFMC 2015) revised the commercial and recreational sector allocations of the red snapper annual catch limits (ACL) by shifting 2.5% of the commercial sector's allocation to the recreational sector. The resulting sector allocations for red snapper were 48.5% commercial and 51.5% recreational and were applied to the 2016 quotas. However, on March 3, 2017, a U.S. district court vacated **Amendment 28**, and the sector quotas for 2017 were adjusted consistent with the previous sector allocations of 51% commercial and 49% recreational.

In 2018, applications for exempted fishing permits (EFP) were received by NMFS from the Florida Fish and Wildlife Conservation Commission, Alabama Department of Conservation and Natural Resources, Mississippi Department of Marine Resource, Louisiana Department of

Wildlife and Fisheries, and Texas Parks & Wildlife Department. The purpose of the EFPs is to allow the states to demonstrate the effectiveness of state management of recreationally caught red snapper and data collection methods through 2-year pilot programs. The pilot programs would apply to the 2018 and 2019 fishing years. The EFPs authorize the states, with certain conditions, to allow red snapper caught in federal waters by the private angling component to be landed within certain time periods determined each state.

The Council is currently considering additional allocations of red snapper. One would divide the recreational red snapper ACL (either private angling component ACL, only, or both the private angling and federal for-hire component ACLs) among the five Gulf states (**Amendment 50**), and others would divide the federal for-hire component ACL among charter vessel operators (**Amendment 41**) and headboat operators (**Amendment 42**). The development of these amendments should be taken into consideration as this document develops, as reallocation would impact those amendments.

Red Snapper Data and Recalibration

Recreational red snapper landings in the Gulf are obtained through multiple sources. The Southeast Region Headboat Survey covers headboats in the Gulf and South Atlantic. MRIP currently provides private angling and charter vessel landings and effort data for Gulf states other than Texas and Louisiana. Texas began its own sampling program (Marine Sport-Harvest Monitoring Program) and provides recreational landings, except for headboat landings, from Texas. Data from Louisiana's sampling program (LA Creel) has been used since 2013. The other Gulf states are developing sampling programs that either have recently been certified by MRIP including Mississippi (Tails n' Scales), Alabama (Snapper Check), and Florida (Gulf Reef Fish Survey). All of the Gulf state sampling programs track red snapper landings.

NMFS MRIP is planning a transition from the legacy Coastal Household Telephone Survey (CHTS) to a new mail Fishing Effort Survey (FES) within MRIP. Both surveys collect data needed to estimate marine recreational fishing effort (number of fishing trips) by shore and private/rental boat anglers on the Atlantic and Gulf coasts. In 2015, NMFS began a 3-year process of side-by-side testing of the new FES against the current CHTS. The new mail-based FES uses angler license and registration information as one way to identify and contact anglers (supplemented with data from the U.S. Postal Service, which includes virtually all U.S. households). In 2018, the FES replaced the CHTS, which uses random-digit dialing of homes in coastal counties to contact anglers. The 3-year side-by-side testing is being used because the two methods are so different, and produce different results.

Early studies indicated, and subsequent follow-up has confirmed, that, on average, fishing effort estimates for the FES will be higher — and in some cases substantially higher — than the CHTS estimates. This results from the FES doing a better job of measuring fishing activity than the CHTS, rather than to a sudden rise in fishing effort. The calibration model will enable NMFS to adjust historic effort estimates to accurately compare them with new estimates from the FES. Higher effort does not necessarily mean there are fewer fish to catch. NMFS will not use estimates from the FES until the agency can make accurate comparisons to past estimates and determine how to apply them to stock assessments and annual catch limits.

Allocation Reviews

An Allocation Review Policy (01-119, NMFS 2016a) and two procedural directives (01-119-01, and 01-119-02; NMFS 2016b-c) were developed by NMFS and the Council Coordination Committee (CCC) to provide relevant information for allocation decision-making as well as what factors should be considered. The CCC developed procedural guidance on when to make fishery allocation decisions (“Criteria for Initiating Fisheries Allocation Reviews. Council Coordinating Committee Allocation Workgroup Guidance Document”, 01-119-01). NMFS developed procedural guidance on what factors should be evaluated when making allocation decisions (“Recommended Practices and Factors to Consider when Reviewing and Making Allocation Decisions”, 01-119-02). NMFS also created Policy Directive 01-119 (“Fisheries Allocation Review Policy”), which explains how the CCC and NMFS procedural guidance complement each other. The policy directive outlines a three step adaptive management process (Figure 1.1.1). Step 1 is determining that a trigger for an allocation review has been met. Step 2 is the allocation review to determine if action is needed to consider alternative allocations. Finally, under Step 3, a Fishery Management Council (FMC) evaluates allocation alternatives using the identified factors.

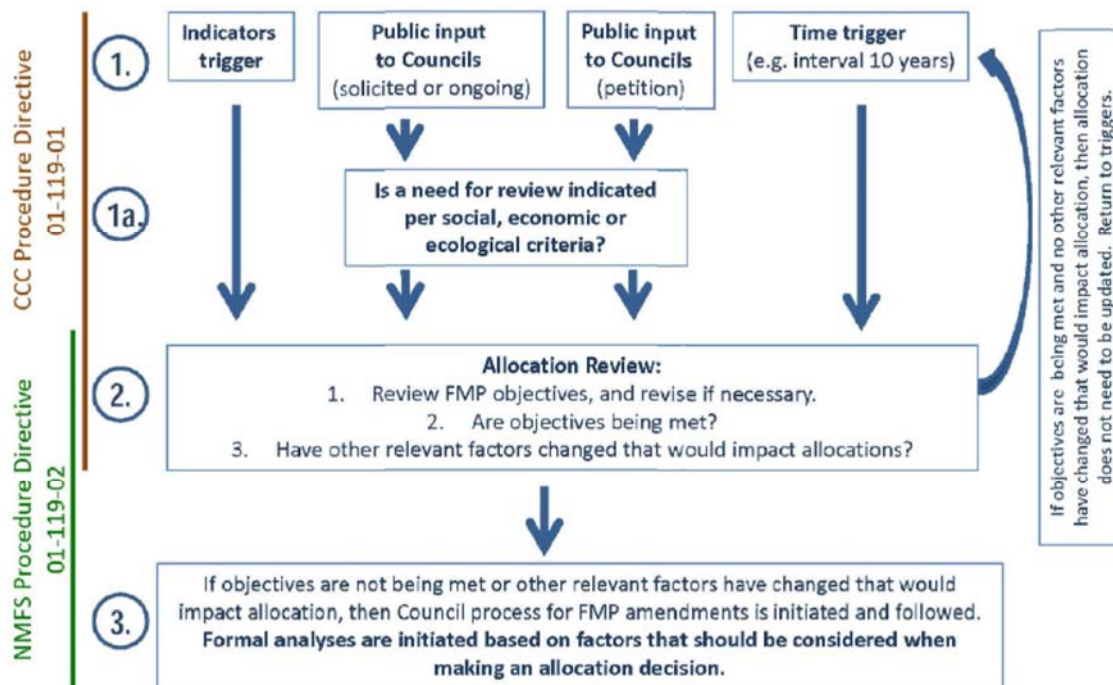


Figure 1.1.1. Steps in the adaptive management of allocation from NMFS Policy Directive 01-119 (NMFS 2016a).

NMFS developed recommended practices and factors for FMCs to consider when reviewing and making allocation decisions (01-119-02). Similar to the CCC guidance, NMFS guidance stresses the need to review management goals and objectives, and update them appropriately (Fig. 1.1.1,

Step 2). In addition, this guidance recommends that the FMCs identify user needs, minimize speculative behaviors (e.g., announce control dates as appropriate), and plan for future conditions as recommendations to improve the allocation process. These actions can help improve transparency in the process as well as reduce conflict.

In describing factors to consider when reviewing and making allocation decisions, NMFS points out that although allocation has been often based on historical use in a fishery, that other factors should be considered (Fig. 1.1.1, Step 3). Because the Magnuson-Stevens Act requires achieving optimum yield (OY) on a continuing basis, NMFS identified factors to consider for allocation decisions that are similar to those described in the National Standard 1 guidance relating to OY (ecological, economic, and social factors). In addition, NMFS suggests using indicators of performance and change. These factors should be considered relative to the time horizon of the allocation decision, the objectives of the allocation and management plan, and the FMC's management goals. Factors that are important or relevant to the allocation decision should be documented to create a strong record for the final decision. In addition, the guidance notes that an analysis of an allocation decision under these factors is not a substitute for documenting compliance with Magnuson-Stevens Act mandates, although there may be overlap between certain factors and these mandates.

With respect to red snapper allocation, the Council has already identified a need to conduct an allocation review (Step 1) and reviewed and revised the FMP objectives to ensure they are relevant (Step 2). As stated in the directives, an allocation review should consider FMP objectives along with other relevant factors that have changed and may be important to the fisheries allocation. After completion of the review, the Council should determine which factors are relevant to the red snapper allocation decision (Step 3).

1.2 Management Objectives of the Fishery Management Plan

In Reef Fish Amendment 1 (GMFMC 1989), 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.

As seen in Appendix B, the first management objectives were developed in the Original Reef Fish FMP (1-4), and have been added to in subsequent amendments. Amendment 1 (GMFMC 1989) added Objectives 5-11. Amendment 3 (GMFMC 1991) modified Objective 5 to include "...and definition of Optimum Yield for the Reef Fish..." and change "shall be" to "is" and "spawning stock biomass per recruit (SSBR)" to "spawning potential ratio". Amendment 15 (GMFMC 1997) added Objectives 12-17. At the April 2014 meeting, the Council modified Objective 11 from "economic" to "socioeconomic", modified the overall goal of the FMP from "modified" to "reduced" and added Objective 18 (Table 1.2.1). In the development of Amendment 28, the Council's Reef Fish Committee reviewed the objectives and identified Objectives 11, 12, 13, 14, and 16 as most relevant to reallocation of red snapper.

At the August 2018 meeting, the Council's Reef Fish Committee requested that Council staff provide an analysis of the Reef Fish FMP objectives in terms of background information, context, and relevant amendments, as well as the extent to which the Council has achieved those objectives. At the October 2018 meeting, the Council reviewed the objectives in Appendix B and then combined, as well as, removed certain objectives, reducing the total number of objectives to eleven. The list of objectives coming out of the October 2018 Council meeting is shown in Table 1.2.1. Any allocation or reallocation must be consistent with the FMP objectives.

Table 1.2.1. Objectives of the Fishery Management Plan for Reef Fish Resources in the Gulf of Mexico, Post-October 2018 Council Meeting.

Number	Objective
1	To prevent overfishing and rebuild overfished stocks.
2	To maintain robust fishery reporting and data collection systems for monitoring the reef fish fishery.
3	To conserve and protect reef fish habitat.
4	To minimize conflicts between user groups.
5	To minimize and reduce dead discards.
6	To manage Gulf stocks at OY as defined in MSA.
7	To revise the definitions of the fishery management unit and fishery to reflect the current species composition of the reef fish fishery.
8	To encourage and periodically review research on the efficacy of artificial reefs for management purposes.
9	To promote stability in the fishery by allowing for enhanced fisher flexibility and increasing fishing opportunities to the extent practicable.
10	To avoid to the extent practicable the "derby" type fishing season.
11	To provide for cost-effective and enforceable management of the fishery.

1.3 Purpose and Need

The purpose is to review and evaluate the allocations of red snapper, taking into account previous deliberations and any new information along with a broad range of social, economic, data correction, and management factors.

The need is to base sector and component allocations of red snapper on the best scientific information available, while achieving optimum yield, particularly with respect to food production and recreational opportunities.

CHAPTER 2. DRAFT MANAGEMENT ALTERNATIVES

2.1 Action 1 – Allocation of Red Snapper between the Commercial and Recreational Sectors

Reallocation of Quota

Option 1: Establish commercial and recreational sector allocation based on historical landings between 1986 and 2006. Resulting commercial and recreational allocations would be 46.5% and 53.5%, respectively.

Option 2: Establish commercial and recreational sector allocation based on historical landings between 2002 and 2006. Resulting commercial and recreational allocations would be 45.2% and 54.8%, respectively.

Allocation of Quota Increases

Option 3: If the red snapper quota is less than or equal to 9.12 million pounds (mp) whole weight (ww), maintain the commercial and recreational red snapper allocations at 51% and 49% of the red snapper quota, respectively. If the red snapper quota is greater than 9.12 mp ww, allocate the amount in excess of 9.12 mp ww between the two sectors.

Sub-option a: Allocate the amount in excess with 75% to the commercial sector and 25% to the recreational sector.

Sub-option b: Allocate the amount in excess with 25% to the commercial sector and 75% to the recreational sector.

Option 4: If the red snapper quota is less than or equal to 13.74 mp ww, maintain the commercial and recreational red snapper allocations at 51% and 49% of the red snapper quota, respectively. If the red snapper quota is greater than 13.74 mp ww, allocate the amount in excess of 13.74 mp ww between the two sectors.

Sub-option a: Allocate the amount in excess with 75% to the commercial sector and 25% to the recreational sector.

Sub-option b: Allocate the amount in excess with 25% to the commercial sector and 75% to the recreational sector.

Discussion:

The status quo would maintain the allocation set in Reef Fish Amendment 1, with commercial and recreational allocations of the red snapper quota at 51% and 49%, respectively.

Option 1 would utilize 2006 at its terminal year. In comparison to the status quo, allocation of the red snapper quota under **Option 1** would decrease by 4.5% for the commercial sector and increase by 4.5% for the recreational sector. Reef Fish Amendment 26, which developed the Gulf of Mexico (Gulf) commercial red snapper individual fishing quota (IFQ) program, was

approved in 2006, and the IFQ program was implemented in 2007. The commercial sector was constrained from overages beginning in 2007. Commercial sector and recreational sector landings are shown in Table 1.1.1. As noted in Section 1.1, the National Marine Fisheries Service (NMFS), in coordination with the Gulf states, is developing a calibration model for recreational effort that may be used to adjust historic effort estimates to accurately compare them with new estimates from the Marine Recreational Information Program (MRIP) Fishing Effort Survey (FES), and this may lead to modifications to the landings currently displayed in Table 1.1.1. In addition, further analysis must be conducted to determine the best available science, to account for the certification of a majority of the Gulf states' surveys for red snapper recreational landings and effort.

Option 2 would average the 5 years of landings history before the red snapper commercial IFQ program was implemented. In comparison to the status quo, allocation of the red snapper quota under **Option 2** would decrease by 5.8% for the commercial sector and increase by 5.8% for the recreational sector.

Options 3 and 4 would establish a red snapper quota threshold that would need to be exceeded in order for a reallocation percentage to be utilized. **Option 3** would set the threshold at 9.12 mp ww, which is the quota in 2006 when the commercial red snapper IFQ program was approved. **Option 4** would set the threshold at 13.74 mp ww, which was the quota in both 2017 and 2018. **Sub-option a** would allocate 75% of the additional quota to the commercial sector and 25% of the additional quota to the recreational sector. **Sub-option b** would allocate 25% of the additional quota to the commercial sector and 75% of the additional quota to the recreational sector. Any increases to the recreational quota from **Options 3 and 4** would be allocated between the federal for-hire and private angling components based on the allocation percentages chosen in Action 2.

In the Framework Action to Modify Red Snapper and Hogfish Catch Limits, the Gulf of Mexico Fishery Management Council (Council) approved increasing the red snapper annual catch limit to 15.1 mp ww from 2019 to 2021. Under a quota of 15.1 mp ww, the resulting overall percentages of the red snapper quota allocated to the commercial and recreational sectors would be, respectively, 60.5% and 39.5% with **Option 3, Sub-option a**. These percentages would be a 9.5% increase for the commercial sector and a 9.5% decrease for the recreational sector, compared to the status quo allocation. Under a quota of 15.1 mp ww, the resulting overall percentages of the red snapper quota allocated to the commercial and recreational sectors would be, respectively, 40.7% and 59.3% with **Option 3, Sub-option b**. These percentages would be a 10.3% decrease for the commercial sector and a 10.3% increase for the recreational sector, compared to the status quo allocation.

Under a quota of 15.1 mp ww, the resulting overall percentages of the red snapper quota allocated to the commercial and recreational sectors would be, respectively, 53.2% and 46.8% with **Option 4, Sub-option a**. These percentages would be a 2.2% increase for the commercial sector and a 2.2% decrease for the recreational sector, compared to the status quo allocation. Under a quota of 15.1 mp ww, the resulting overall percentages of the red snapper quota allocated to the commercial and recreational sectors would be, respectively, 48.7% and 51.3%

with **Option 4, Sub-option b**. These percentages would be a 2.3% decrease for the commercial sector and a 2.3% increase for the recreational sector, compared to the status quo allocation.

Under a quota of 13.74 mp ww, which was the quota in 2017 and 2018, the resulting overall percentages of the red snapper quota allocated to the commercial and recreational sectors would be, respectively, 59.1% and 40.9% with **Option 3, Sub-option a**. These percentages would be an 8.1% increase for the commercial sector and an 8.1% decrease for the recreational sector, compared to the status quo allocation. Under a quota of 13.74 mp ww, the resulting overall percentages of the red snapper quota allocated to the commercial and recreational sectors would be, respectively, 42.3% and 57.7% with **Option 3, Sub-option b**. These percentages would be an 8.7% decrease for the commercial sector and an 8.7% increase for the recreational sector, compared to the status quo allocation. With **Option 4, Sub-options a and b**, a quota of 13.74 mp ww would not exceed the threshold, and thus a 51% commercial sector, 49% recreational sector allocation would result.

2.2 Action 2 – Allocation of Red Snapper between the Private Angler and Federal For-Hire Components

Option 1: Establish private angling and federal for-hire component allocations based on average landings between 1986 and 2017 (2010 excluded). Resulting private angling and federal for-hire allocations would be 54.4% and 45.6%, respectively.

Option 2: Establish private angling and federal for-hire component allocations based on 50% of the average percentages landed by each component between 1986 and 2017 (2010 excluded) and 50% of the average percentages landed by each component between 2006 and 2017 (2010 excluded). Resulting private angling and federal for-hire allocations would be 61.7% and 38.3%, respectively.

Option 3: Establish private angling and federal for-hire component allocations based on average landings between 2007 and 2017 (2010 excluded). Resulting private angling and federal for-hire allocations would be 71.4% and 28.6%, respectively.

Discussion:

The status quo would maintain the allocation set in Reef Fish Amendment 40, with private angling and federal for-hire allocations at 57.7% and 42.3%, respectively.

Option 1 considers the longest timeframe of 1986 to 2017 (2010 excluded). In comparison to the status quo, allocation of the red snapper quota under **Option 1** would decrease by 3.3% for the private angling component and increase by 3.3% for the federal for-hire component.

Under **Option 2**, allocation of the recreational red snapper quota and annual catch target (ACT) would be based on 50% of the average percentages landed by each component between 1986 and 2017 (2010 excluded) and 50% of the average percentages landed by each component between 2006 and 2017 (2010 excluded). **Option 2** incorporates more recent years than Amendment 40, which used 2013 as a terminal year. In comparison to the status quo, allocation of the red snapper quota under **Option 2** would increase by 4% for the private angling component and decrease by 4% for the federal for-hire angling component.

Under **Option 3**, allocation of the recreational red snapper quota and ACT would be based on the 10 most recent years, 2007 to 2017 (2010 excluded). In comparison to the status quo, allocation of the red snapper quota under **Option 3** would increase by 13.7% for the private angling component and decrease by 13.7% for the federal for-hire component.

As noted in Section 1.1, NMFS, in coordination with the Gulf states, is developing a calibration model for recreational effort that may be used to adjust historic effort estimates to accurately compare them with new estimates from the MRIP FES, and this may lead to modifications to the landings currently displayed in Table 1.1.1. In addition, further analysis must be conducted to determine the best available science, to account for the certification of a majority of the Gulf states' surveys for red snapper recreational landings and effort.

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APPENDIX A.

Gulf of Mexico Fishery Management Council Fishery Allocation Policy

(<http://gulfcouncil.org/wp-content/uploads/GMFMC-SOPPs-Fishery-Allocation-Policy.pdf>)

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;
 - fairness should be considered for indirect changes in allocation
 - any harvest restrictions or recovery benefits be allocated fairly and equitably among sectors
 - (2) promote conservation
 - connected to the achievement of OY
 - furtherance of a legitimate FMP objective
 - 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
 - determine prerequisites and conditions;
 - quota or tags or some other mechanism required in one or both sectors
 - mechanism to broker or bank the purchases and exchanges
 - annual, multi-year, or permanent
 - accountability for purchased or exchanged quota in the receiving sector.
- b. Catch-Based (and mortality) Allocation
 - (1) historical landings data
 - averages based on longest period of credible records
 - averages based on a period of recent years
 - averages based on total fisheries mortality (landings plus discard mortality) by sector
 - allocations set in a previous FMP
 - accountability (a sector's ability to keep within allocation)
- c. Socioeconomic-based Allocation
 - (1) socio-economic analyses
 - net benefits to the nation
 - economic analysis limited to direct participants
 - economic impact analysis (direct expenditures and multiplier impacts)
 - social impact analysis
 - fishing communities
 - participation trends
 - "efficiency" analysis
 - lowest possible cost for a particular level of catch;
 - 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.

Table 1. Objectives of the Fishery Management Plan for Reef Fish Resources in the Gulf of Mexico, Pre-October 2018 Council Meeting.

Number	Objective
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 and definition of Optimum Yield for the Reef Fish Fishery Management Plan is 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 potential ratio.
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 socioeconomic 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.
18	To maximize the available days to recreational fishermen.