

Reef Fish Management for Federally Permitted Charter Vessels

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CHAPTER 1. INTRODUCTION

1.1 Background

A joint meeting of the Ad Hoc Reef Fish Headboat (Headboat) and Ad Hoc Red Snapper Charter (Charter) Advisory Panels (APs) was held January 9-10, 2017, with the purpose of providing an opportunity to build consensus between the charter and headboat components of the recreational sector and recommend to the Council management approaches suitable to the specificities and needs of both components. Recommendations from the joint meeting were presented at the January 2017 Gulf Council meeting. This resulted in a motion to develop a white paper outlining the changes necessary to include multiple species in the allocation-based management program for charter vessels consistent with the Charter AP recommendations and joint AP meeting consensus. This document is prepared to address the Council's motion, which is provided below.

Motion: To instruct staff to develop a white paper outlining the changes necessary to include red snapper, gag, gray triggerfish, greater amberjack and red grouper in the management program for Charter for-hire allocation-based management consistent with CFH AP recommendations and joint CFH/HB AP consensus. This should explore:

- A) Required changes to current amendment including Purpose & Need, Title, etc.
- B) Method for determining CFH ACL for gray triggerfish, gag, red grouper, and greater amberjack
- C) Develop mechanisms for trading different species to accommodate regional differences.
- D) Scenarios illustrating how initial allocation of shares would change through cyclical redistribution (discussed at length during joint For-Hire AP meeting) based on reported landings methodology chosen.

1.2 Revised Purpose and Need

The **purpose** of this action is to establish a management approach for federally permitted Gulf reef fish charter vessels to harvest reef fish that provides flexibility, reduces management uncertainty, improves economic conditions, and increases fishing opportunities for federal charter vessels and their angler passengers.

The **need** is for flexible management of federally permitted charter vessels when harvesting reef fish to prevent overfishing while achieving, on a continuing basis, the optimum yield from the harvest of reef fish by the for-hire sector (national standard (NS) 1); take into account and allow for variations among, and contingencies in the fisheries, fishery resources, and catches (NS 6); and provide for the sustained participation of the fishing communities of the Gulf and to the extent practicable, minimize adverse economic impacts on such communities (NS 8).

CHAPTER 2. POTENTIAL ACTIONS

2.1 Annual Catch Limit Allocation

Potential Action 1. Allocation of Annual Catch Limit for Gray Triggerfish, Gag, Red Grouper, and Greater Amberjack to Charter Vessels

Alternative 1. No Action. Do not allocate a portion of the recreational ACL to each component of the recreational sector.

Alternative 2. For each species, allocate a portion of the recreational ACL to each component of the recreational sector based on the average percentage landed by each component from the most recent five years (2011-2015).

	Private Anglers	Charter Vessels	Headboats
Gray Triggerfish	72.9%	20.7%	6.4%
Gag	77.9%	17.8%	4.4%
Red Grouper	60.5%	35.6%	3.9%
Greater Amberjack	49.0%	45.5%	5.6%

Source: Southeast Fisheries Science Center’s (SEFSC) ACL database accessed 1/5/17. Gray triggerfish landings based on the Marine Recreational Fisheries Statistics Survey (MRFSS), while the remaining species utilized landings are from the Marine Recreational Information Program (MRIP).

Alternative 3. For each species, allocate a portion of the recreational ACL to each component of the recreational sector based on the average percentage landed by each component from the longest time series (1981-2015).

Option a. Use all years

Option b. Exclude 2010

		Private Anglers	Charter Vessels	Headboats
Gray Triggerfish	Option a	44.9%	43.3%	11.8%
	Option b	44.4%	43.7%	11.9%
Gag	Option a	75.0%	19.9%	5.0%
	Option b	75.2%	19.8%	5.1%
Red Grouper	Option a	73.8%	21.5%	4.8%
	Option b	74.1%	21.0%	4.8%
Greater Amberjack	Option a	46.0%	45.8%	8.2%
	Option b	45.7%	46.0%	8.3%

Source: SEFSC ACL database accessed 1/5/17. Gray triggerfish landings from MRFSS; the remaining species’ landings are from MRIP.

Alternative 4. For each species, allocate a portion of the recreational ACL to each component of the recreational sector based on 50% of the average percentage landed by each component from the most recent five years (2011-2015) and 50% of the average percentage landed by each component from the longest time series (1981-2015).

- Option a.** Use all years
- Option b.** Exclude 2010

		Private Anglers	Charter Vessels	Headboats
Gray Triggerfish	Option a	58.8%	32.0%	9.2%
	Option b	58.6%	32.2%	9.2%
Gag	Option a	76.5%	18.8%	4.7%
	Option b	76.5%	18.7%	4.7%
Red Grouper	Option a	67.2%	28.4%	4.4%
	Option b	67.4%	28.2%	4.4%
Greater Amberjack	Option a	47.1%	45.9%	7.0%
	Option b	47.0%	46.0%	7.1%

Source: SEFSC ACL database accessed 1/5/17. Gray triggerfish landings from MRFSS; the remaining species' landings are from MRIP.

Discussion:

This potential action evaluates the use of various timeframes, as well as different weighting of subsets of those timeframes, for the allocation of recreational ACLs for gray triggerfish, gag, red grouper, and greater amberjack to each component of the recreational sector (private anglers, charter vessels, and headboats). Figures 2.1.1, 2.1.2, 2.1.3, and 2.1.4 display the historical landings from 1981-2015 by fishing mode (charter vessel, headboat, and private angler) of gray triggerfish, gag, red grouper, and greater amberjack. The poundage and percentage of total landings, by component of the recreational sector, are shown for each of the four species in Appendices A-D.

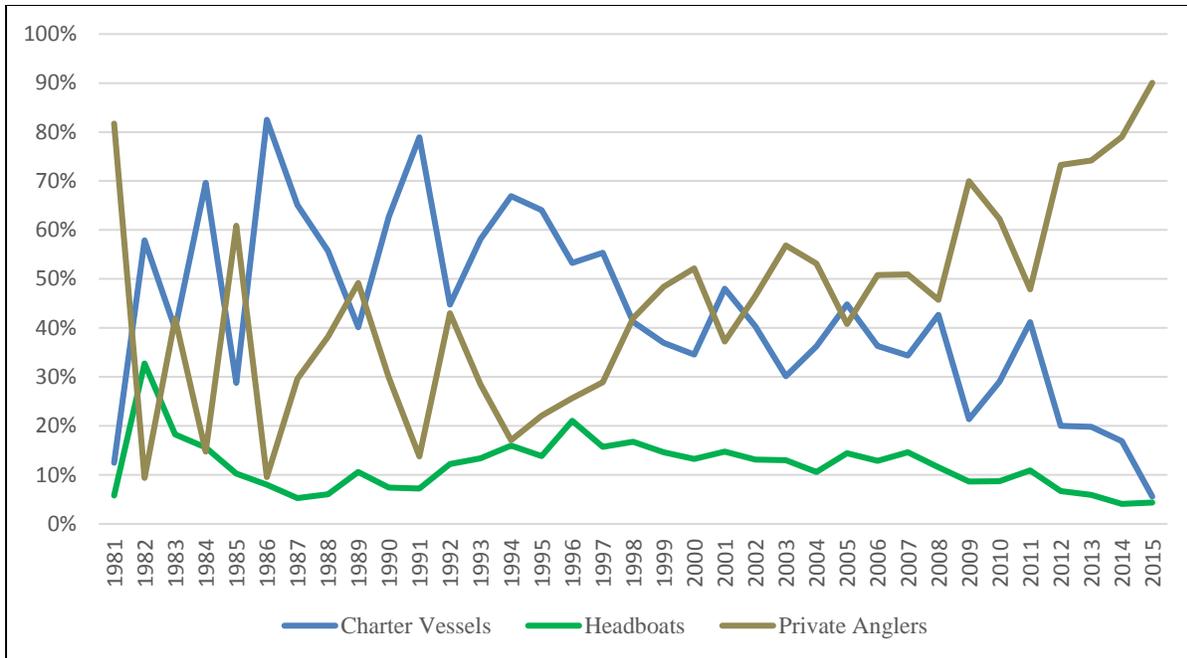


Figure 2.1.1. Percentage of recreational landings by component (charter vessels, headboats, and private anglers) for gray triggerfish from 1981 to 2015.

Source: The SEFSC ACL database updated as of 1/5/17. Gray triggerfish utilized landings based on Marine Recreational Fisheries Statistics Survey (MRFSS) dataset.

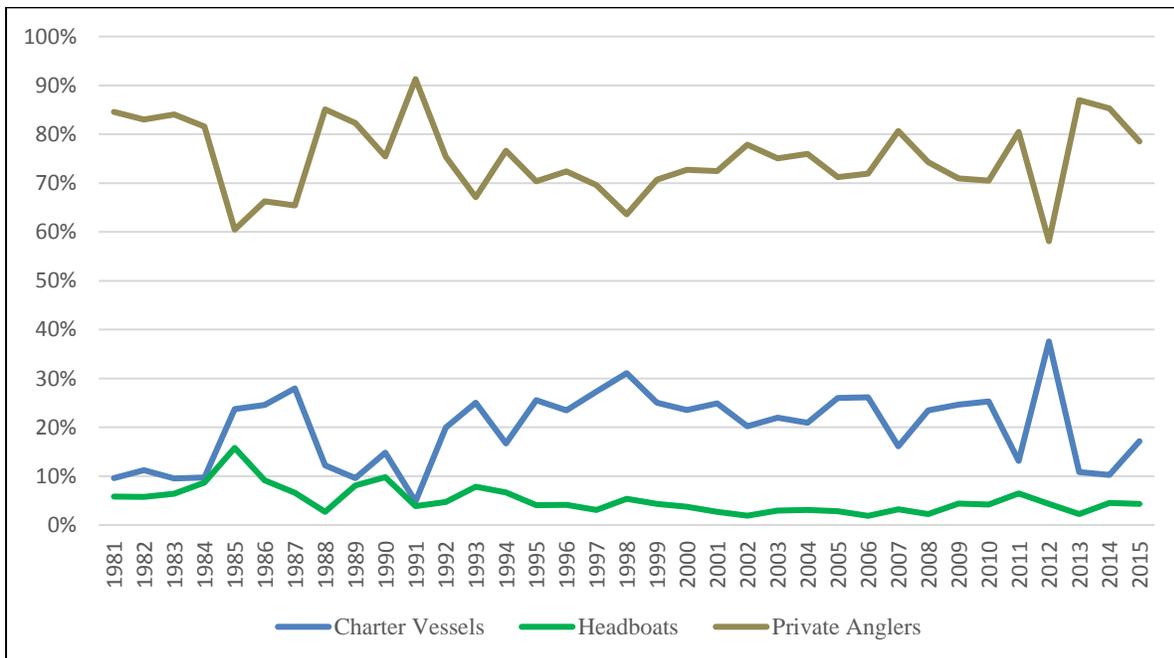


Figure 2.1.2. Percentage of recreational landings by component (charter vessels, headboats, and private anglers) for gag from 1981 to 2015.

Source: The SEFSC ACL database updated as of 1/5/17. Gag utilized landings based on the Marine Recreational Information Program (MRIP) dataset.

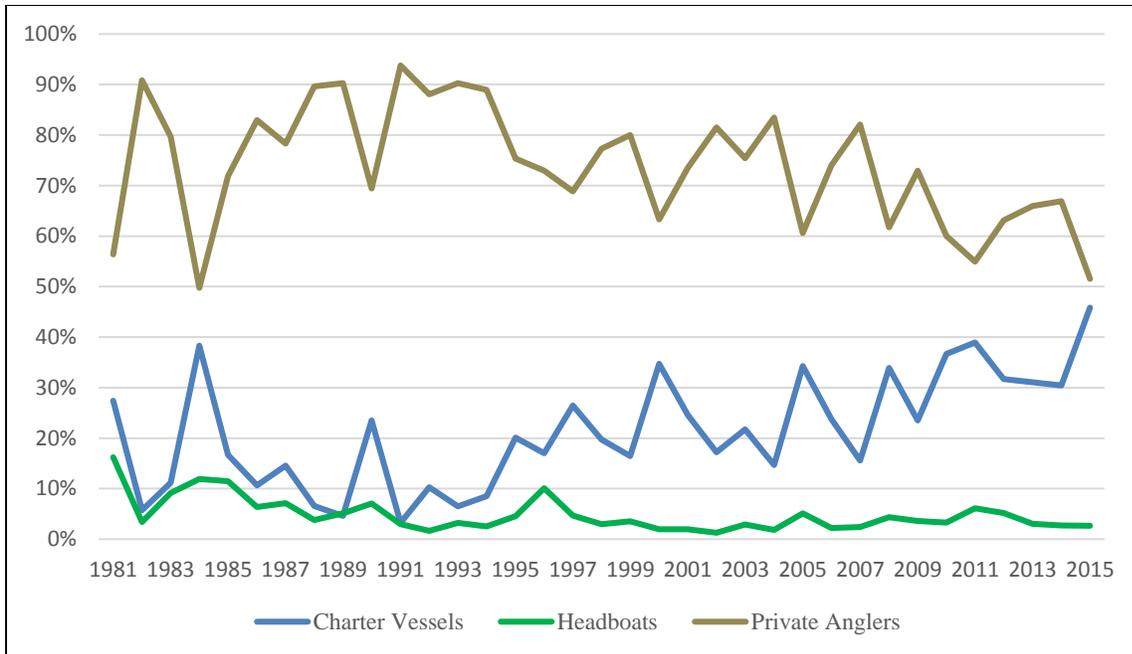


Figure 2.1.3. Percentage of recreational landings by component (charter vessels, headboats, and private anglers) for red grouper from 1981 to 2015. Source: SEFSC ACL database accessed 1/5/17. Red grouper landings from MRIP.

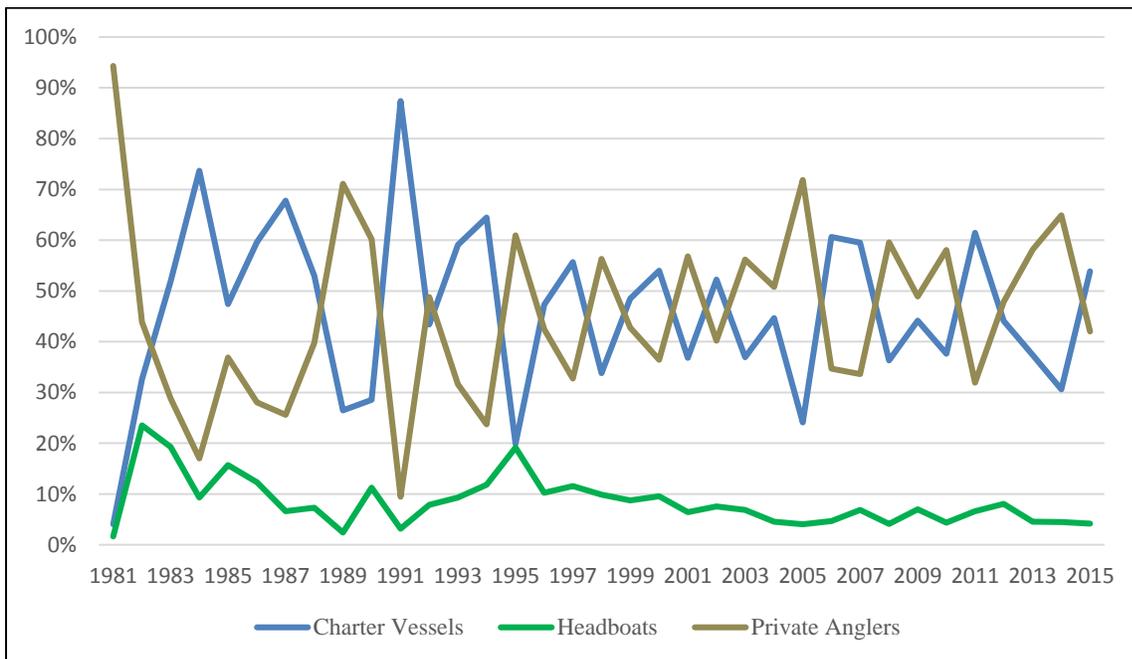


Figure 2.1.4. Percentage of recreational landings by component (charter vessels, headboats, and private anglers) for greater amberjack from 1981 to 2015. Source: The SEFSC ACL database accessed 1/5/17. Greater amberjack landings from MRIP.

2.2 Cyclical Redistribution

A Cyclical Catch Share (CCS) program is an allocation-based program designed to reclaim and redistribute a portion of the shares on a predetermined timescale. Cyclical redistribution examples, including management alternatives, are included in Tab B, No. 9b. There are three main components to a cyclical catch share program:

- Scheduled timetable of cycles
- Reclamation process
- Redistribution process

The cycles may be for a set length of time, progressively lengthening over time, or progressively lengthening until a set length is achieved (Figure 2.2.1). The cycles could also continue indefinitely or end after a certain number of cycles. At the end of each cycle, the reclamation process begins. This process reclaims a portion of every shareholder's shares and returns them to the National Marine Fisheries Service (NMFS).

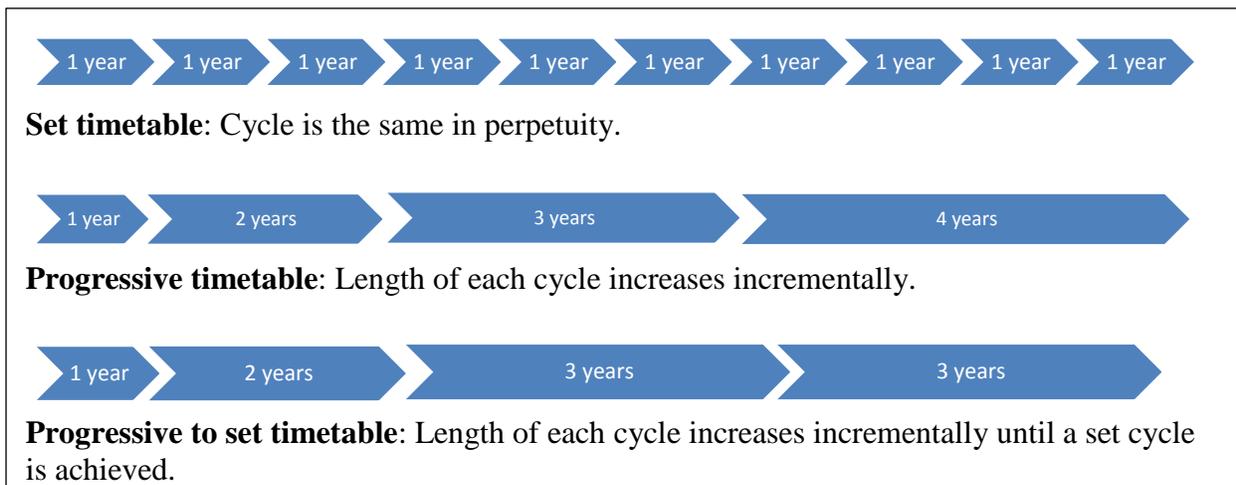


Figure 2.2.1. Cycle timetables.

The proportion of shares reclaimed each cycle can be fixed or progressive (Figure 2.2.2). Prior to the start of each cycle, the redistribution process occurs. During the redistribution process, the reclaimed shares are distributed to those accounts that had landings during the cycle. These redistributions can be distributed equally to all accounts with landings or distributed proportionally based on the amount of landings that occurred during the cycle. Variations on the reclamation and redistribution processes may increase the complexity and timetable for the program.

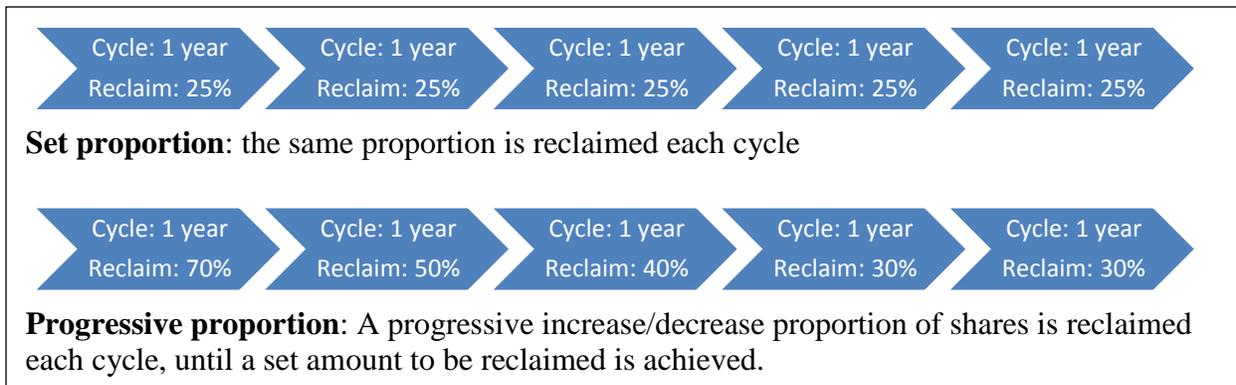


Figure 2.2.2. Reclamation Process.

As shown in Table 2.2.1, a CCS program differs from a traditional catch share program, in that the amount of shares assigned to a participant are fluid based upon harvesting activities. For instance, only those accounts with harvesting activities receive a proportion of the redistributed shares. This cyclical nature retains shares with stakeholders that are actively participating in the fishery, allows for new (replacement) entrants to secure shares through harvesting activity, and inhibits absentee ownership of shares. Depending on the design, a CCS program may be an appropriate choice when:

- individual landings histories are unknown,
- initial share distribution may not be a true representation of the fishery,
- the number of latent permits is unknown,
- absentee ownership is a concern, and
- reducing barriers to new/replacement fishermen is a program objective.

When designing a program where the catch history does not exist, other mechanisms must be considered for initial distribution of shares. For example, regional landings and/or passenger capacity may be considered proxies for landings history in the for-hire component of the fishery. While these proxies attempt to assign initial shares that represent the fishery, the lack of landings history or an unknown number of latent permits (zero landings over the course of the year) may mean that the initial distribution is not representative. Elements of a CCS program may be designed to address this issue.

Table 2.2.1. Comparison of share distribution and ownership between a traditional catch share program and a cyclical catch share program.

	Traditional Catch Share	Cyclical Catch Share
Share Distribution	One-time event	Initial distribution, followed by reclamation and redistribution processes
Share Ownership	Assigned at start of program, and then based on share transfers among participants, if allowed.	Assigned at the start of the program, but a portion is reclaimed and redistributed at pre-determined cycles. Redistribution is based on landings.

Cycle Length:

Choice of the cycle length may have impacts on the effectiveness of a CCS program. Using a set cycle length that is too short in duration may unduly affect fishermen who were unable to harvest during a particular year (e.g., medical reasons, vessel in dry-dock). In addition, short-term events such as hurricanes or red tide events may negatively affect one region more than another during a short cycle. Short cycles could also create difficulties for for-hire operators trying to plan for the future.

In contrast, too long of a cycle may disproportionately affect fishermen that have not been involved in the fishery for the entire length of the cycle. For example, with a proportional redistribution system, fishermen who join the fishery towards the end of a cycle may not benefit as strongly as those who were able to harvest throughout the cycle. Consideration of initial distribution and other factors may affect decisions regarding a set or progressive cycle. Progressive cycles may be more efficient in a fishery where the initial distribution may not have been representative of the fishery. In a progressive cycle approach, the cycle can be designed to be short in the early years of the program, but then begin to lengthen over time, or even end, as the fishery stabilizes.

Reclamation:

The reclamation process has two design components for consideration: the qualifications for accounts from which shares will be reclaimed and the proportion of shares to be reclaimed.

Latent reclamation refers to reclamation from shareholder accounts that did not report landings during that cycle. The goal is to reclaim and redistribute shares from accounts that are latent (no landings during the cycle, or not meeting some other landings threshold). The reclamation percentage is only applied to the shares in the accounts that did not report landings, not all accounts.

Comprehensive reclamation refers to reclamation from all shareholders, regardless of landings. The goal is to address some of the existing concerns about catch share programs, such as latent permit/activity, replacement fishermen ('new fishermen'), and one-time apportionment of shares, in order to make the share distribution more representative of the actual harvest of the fishery. The reclamation percentage is applied to all accounts, regardless of landings.

With regards to the proportion of shares to be reclaimed, if the proportion is too high, instability may result within the fishery. For instance, fishermen need to be able to plan out the next fishing year in advance. In the for-hire industry, the proportion reclaimed may directly relate to the ability to book trips and to have sufficient allocation available in advance of the fishing year. If the reclamation proportion is too high, then fishermen will be limited in their ability to predict trips for the next year. In contrast, a reclamation proportion that is too low may not supply enough shares for redistribution to address the objectives or goals of the CCS program. For example, in a fishery where the initial distribution was based on proxies, a low reclamation proportion would result in a longer time period until the share distribution becomes a better representation of the fishery. As with the cycle length, consideration of initial distributions and other factors may affect decisions regarding a set or progressive reclamation proportion.

Progressive cycles, when designed to reduce the reclaimed proportion over time, would be more effective in a fishery where the initial distribution was less representative of the fishery. In a more stabilized fishery, a set reclamation proportion may be more appropriate and used primarily to help new (replacement) fishermen, as existing fishermen exit or decrease their activity in the fishery.

A CCS program could be designed such that shares are reclaimed from all accounts, or shares could be reclaimed only from accounts not meeting certain qualifiers. Reclamation proportions that are not taken from each shareholder could represent concerns in relation to fair and equitable treatment. In addition, the calculation of which accounts should have shares reclaimed would likely have an influence on the timing of the reclamation and redistribution. For example, if reclamation only occurred from accounts that did not have landings of a specific species, the reclamation process could not be completed until all records of harvest were entered and a period for an appeals process had passed.

Redistribution:

Two options for the redistribution process of a CCS program are explored: equal and proportional. Equal redistribution takes the total amount of shares reclaimed and distributes them equally to all accounts that had landings. Proportional distribution would redistribute a greater proportion of shares to accounts with greater landings. For example, a participant that does not target the species of interest or is decreasing their effort due to an anticipated exit from the fishery would receive fewer shares in the redistribution than a fishermen who specifically targets the species of interest. In a multi-species fishery, where species are not encountered in all regions at the same rate, a proportional redistribution would increase shares to those who encountered the species at a higher rate than those that do not encounter the species. New (replacement) fishermen need allocation in order to harvest so that they can earn a portion of the redistributed shares. New (replacement) fishermen could obtain allocation through either share or allocation transfers. Share transfers do not result in immediate allocation, as allocation is distributed at the start of the year or for any in-year quota increase. In general, fishermen that obtained shares in mid-January of Cycle 1, would not receive allocation from those shares until the next January 1st. Allocation transfers allow immediate participation of new (replacement) fishermen. Through allocation transfers, these fishermen could obtain allocation and begin harvesting in the year they joined the program. These landings could then be used to determine any redistributed shares they would receive during the next cycle.

2.3 Trading Mechanisms

Alternative 1: No Action. Do not allow shares or allocation of different species to be traded.

Alternative 2: An account must have a Gulf charter vessel/headboat permit for reef fish and endorsement (if established) to receive transferred shares and/or allocation and can only be transferred to United States citizens or permanent resident aliens.

Option 2a: Allow transfer of shares

Option 2b: Allow transfer of allocation

Alternative 3: There are no restrictions on the transfer of shares or allocation for different species. Shares and allocation can only be transferred to United States citizens or permanent resident aliens.

Discussion:

Transferring allocation refers to the movement of allocation, which is the pounds or number of fish that someone is ensured the opportunity to possess or land in the calendar year, between accounts. Transferring shares refers to the movement of some percent of the quota the shareholder holds that results in allocation each year. Share and allocation transfers can be for a monetary value, bartered, a gift, or part of a package deal which may include other aspects such as the transfer of the permit, vessel, and/or shares. Allocation would be distributed to accounts at the beginning of each fishing year for an allocation-based system based on the shares held by that account. Regardless of the trading mechanism considered, a Gulf charter vessel/headboat permit for reef fish (federal for-hire permit) would still be required for landing any of species included in the for-hire management program.

Alternative 1 would be the most restrictive of the alternatives. If a traditional allocation based program is selected, shares would be distributed at the onset of the program and would not be allowed to be transferred thereafter. If a cyclical program is selected, shares would be distributed at the start of each cycle based on the distribution criteria and no transfers of shares would be allowed thereafter. For both traditional and cyclical programs, allocation would be distributed at the beginning of the year to accounts and no transfers of allocation would be allowed thereafter. Therefore, no account could ever obtain additional shares or allocation, except at the beginning of a cycle if a cyclical program is selected. Obtaining extra allocation during the year is often desirable if a participant uses all of their allocation before the end of the year and can affect discards and optimum yield. If the designated species were caught incidental to fishing for other species, allocation could not be obtained, and those fish would need to be discarded, which may increase discard mortality as fishermen would continue to fish for other species. Restricting the transfer of shares and allocation may also inhibit the achievement of optimum yield, if those pounds that may have been harvested by a different account holder would go unused. For example, allocation belonging to an account holder whose permit expires mid-year and is not renewed or whose vessel is in dry dock would remain unused for the year. For a cyclical program, if redistribution of shares was proportional based on the actual landings, then this alternative would not accommodate the regional differences or allow the distribution of

shares and allocation to balance across the regions. In addition, if allocation was not transferrable, then this would inhibit new entrants from earning shares through landings. Overall, **Alternative 1** would not fully support the purpose of a cyclical program (i.e., allows for new (replacement) entrants to secure shares through harvesting activity and thereby keeping shares with stakeholders that are actively participating in the fishery and allowing redistribution to regions where harvest occurs), because it prevents the trading of shares and allocation amongst the participants. **Alternative 1** would not offer program participants the flexibility to adjust their catch composition to reflect changes in the relative abundance of the species in the program or to adjust to temporary increases (or decreases) in demand for a given species or group of species in a particular region.

Alternatives 2 and 3 would require a system and protocol to handle the transfer of shares and allocation. The current commercial system could be adapted to handle this protocol, as it is similar to the protocols for each commercial IFQ program. Allowing the transfer of shares and allocation would be beneficial for participants who use all of their allocation before the end of the year to enable them to accommodate additional trips to harvest the designated species. Transferability of shares and/or allocation could allow fishermen to trade shares or allocation for species not common in their area with fishermen in different areas where the species is common. Particularly with a cyclical program, transferability could allow fishermen to have more landings of a species, and therefore, receive more shares at the beginning of the next cycle, depending on how the cyclical program is designed. Thus, over time, allowing transfers would help accommodate regional differences in species distribution.

Alternative 2 would require a participant receiving shares (**Option 2a**) and/or allocation (**Option 2b**) to have a Gulf charter/headboat permit for reef fish and endorsement (if established). This restriction would contribute to maintaining the shares and allocation in the control of charter vessel operators. The moratorium restricts the number of for-hire permits in the Gulf, and these permits can only be obtained from current permit holders. In Reef Fish Amendment 42, the Council is considering whether to separate the for-hire permits into separate charter and headboat permits, or add an endorsement to the for-hire permit for headboats. If the for-hire permits are separated, then the shares under these alternatives would likely be transferable to only charter permits due to the program restrictions. However, if an endorsement is added to the for-hire permit for headboats or the for-hire permit is not split by the programs, then any entity with a for-hire permit could receive shares unless additional restrictions were implemented.

With **Alternative 3**, any account could receive shares or allocation even without a for-hire permit. **Alternative 3** would be the least restrictive, because an account that no longer had a permit could still receive shares and, depending on eligibility requirements to obtain an account, any United States citizen or permanent resident alien could receive shares or allocation. While shares or allocation could be transferred to an account without a for-hire permit, the fish could not be legally harvested without procuring a for-hire permit. This is similar to the provision in the commercial IFQ programs that after the first five years of the program, allows any United States citizen or resident alien to obtain and transfer shares and allocation, although a commercial reef fish permit is still required to harvest and land IFQ species. For the first five years of the commercial IFQ programs (2007-2011 for red snapper and 2010-2015 for grouper-

tilefish), a federal commercial reef fish permit was needed to obtain an IFQ account and to receive shares and allocation. Currently the commercial IFQ programs do not have permit requirements for acquiring shares or allocation.

APPENDIX A. LANDINGS OF GRAY TRIGGERFISH

Table 1. Landings of gray triggerfish by private anglers, charter vessels, and headboats in pounds and as a percentage of total landings.

Year	Private Anglers		Charter Vessels		Headboats	
	Pounds	% of Total Landings	Pounds	% of Total Landings	Pounds	% of Total Landings
1981	567,226	82%	83,500	12%	38,641	6%
1982	702,209	9%	645,902	58%	365,601	33%
1983	668,174	42%	99,334	40%	45,640	18%
1984	157,989	15%	103,031	70%	23,062	16%
1985	576,591	61%	57,056	29%	20,411	10%
1986	386,010	10%	925,203	83%	89,306	8%
1987	195,701	30%	780,151	65%	63,366	5%
1988	269,642	38%	828,216	56%	90,108	6%
1989	152,526	49%	573,283	40%	151,513	11%
1990	198,887	30%	1,683,008	63%	198,796	7%
1991	222,257	14%	1,668,651	79%	153,049	7%
1992	230,432	43%	621,343	45%	170,053	12%
1993	241,811	28%	796,563	58%	183,066	13%
1994	168,952	17%	779,040	67%	186,036	16%
1995	321,771	22%	793,885	64%	171,741	14%
1996	455,960	26%	316,506	53%	124,892	21%
1997	502,784	29%	384,164	55%	109,031	16%
1998	236,195	42%	218,361	41%	88,623	17%
1999	229,724	48%	175,948	37%	69,481	15%
2000	215,358	52%	161,988	35%	61,995	13%
2001	190,624	37%	219,668	48%	67,528	15%
2002	280,642	47%	278,971	40%	90,952	13%
2003	182,073	57%	241,510	30%	104,409	13%
2004	220,962	53%	343,060	36%	100,066	11%
2005	205,066	41%	261,489	45%	84,130	14%
2006	337,762	51%	164,034	36%	58,178	13%
2007	168,507	51%	147,138	34%	62,685	15%
2008	84,521	46%	178,832	43%	48,584	12%
2009	219,474	70%	85,770	21%	34,615	9%
2010	567,226	62%	86,149	29%	25,756	9%
2011	702,209	48%	190,138	41%	50,449	11%
2012	668,174	73%	56,101	20%	18,706	7%
2013	157,989	74%	90,606	20%	27,119	6%
2014	576,591	79%	36,049	17%	8,693	4%
2015	386,010	90%	5,234	6%	4,112	4%

Data source: The SEFSC ACL database updated as of 1/5/17. Gray triggerfish utilized landings based on Marine Recreational Fisheries Statistics Survey (MRFSS) dataset.

APPENDIX B. LANDINGS OF GAG

Table 1. Landings of gag by private anglers, charter vessels, and headboats in pounds and as a percentage of total landings.

Year	Private Anglers		Charter Vessels		Headboats	
	Pounds	% of Total Landings	Pounds	% of Total Landings	Pounds	% of Total Landings
1981	881,434	85%	103,960	10%	62,488	6%
1982	2,056,768	83%	284,977	11%	146,334	6%
1983	3,398,881	84%	434,815	10%	291,483	6%
1984	1,593,800	82%	212,559	10%	188,965	9%
1985	3,046,832	60%	1,219,126	24%	809,913	16%
1986	2,244,831	66%	845,617	25%	314,929	9%
1987	1,689,249	65%	731,662	28%	173,424	7%
1988	4,122,010	85%	601,755	12%	133,064	3%
1989	2,355,648	82%	282,829	10%	237,736	8%
1990	1,082,545	75%	212,362	15%	140,173	10%
1991	1,728,740	91%	96,688	5%	78,068	4%
1992	1,321,324	75%	361,179	20%	85,233	5%
1993	1,597,023	67%	616,006	25%	193,614	8%
1994	1,499,304	77%	329,156	17%	130,902	7%
1995	1,838,600	70%	693,283	26%	110,269	4%
1996	1,461,139	72%	477,685	23%	84,692	4%
1997	1,886,995	70%	745,610	27%	84,038	3%
1998	2,157,447	64%	1,147,006	31%	197,004	5%
1999	2,619,854	71%	942,163	25%	161,619	4%
2000	3,718,421	73%	1,220,297	24%	194,414	4%
2001	3,058,129	72%	1,050,447	25%	113,393	3%
2002	3,199,482	78%	835,164	20%	77,618	2%
2003	2,693,620	75%	789,823	22%	106,705	3%
2004	4,036,002	76%	1,114,349	21%	164,688	3%
2005	2,668,549	71%	1,009,331	26%	109,305	3%
2006	1,810,165	72%	667,013	26%	47,862	2%
2007	1,770,850	81%	358,266	16%	72,155	3%
2008	2,318,570	74%	757,296	23%	72,718	2%
2009	1,057,665	71%	369,869	25%	65,378	4%
2010	1,146,108	71%	427,430	25%	70,718	4%
2011	604,499	80%	99,029	13%	48,834	6%
2012	587,662	58%	384,912	38%	44,249	4%
2013	1,327,811	87%	165,197	11%	34,117	2%
2014	772,357	85%	92,702	10%	40,728	4%
2015	648,564	79%	141,960	17%	35,546	4%

Data source: The SEFSC ACL database updated as of 1/5/17. Gag utilized landings based on the Marine Recreational Information Program (MRIP) dataset.

APPENDIX C. LANDINGS OF RED GROUPER

Table 1. Landings of red grouper by private anglers, charter vessels, and headboats in pounds and as a percentage of total landings.

Year	Private Anglers		Charter Vessels		Headboats	
	Pounds	% of Total Landings	Pounds	% of Total Landings	Pounds	% of Total Landings
1981	265,540	56%	128,891	27%	76,340	16%
1982	630,081	91%	39,956	6%	23,665	3%
1983	1,001,997	80%	140,023	11%	114,834	9%
1984	608,536	50%	521,442	38%	162,072	12%
1985	2,374,165	72%	550,765	17%	377,896	11%
1986	1,467,250	83%	189,638	11%	112,910	6%
1987	923,989	78%	171,895	15%	84,369	7%
1988	2,334,420	90%	172,268	7%	99,121	4%
1989	2,276,154	90%	116,571	5%	128,851	5%
1990	813,078	69%	291,961	24%	87,319	7%
1991	1,797,068	94%	63,034	3%	57,955	3%
1992	2,619,041	88%	315,437	10%	50,240	2%
1993	1,980,038	90%	146,070	6%	72,633	3%
1994	1,849,621	89%	178,053	9%	52,815	3%
1995	1,484,148	75%	396,409	20%	89,895	5%
1996	583,151	73%	135,810	17%	80,504	10%
1997	354,629	69%	136,193	26%	23,957	5%
1998	577,865	77%	147,558	20%	22,269	3%
1999	1,029,528	80%	211,921	16%	45,810	4%
2000	1,565,108	63%	858,847	35%	48,717	2%
2001	1,148,770	74%	383,817	25%	30,181	2%
2002	1,513,279	82%	319,602	17%	23,508	1%
2003	1,008,617	75%	290,613	22%	38,489	3%
2004	2,945,641	83%	519,181	15%	65,145	2%
2005	890,542	61%	503,727	34%	75,009	5%
2006	852,688	74%	273,767	24%	25,479	2%
2007	850,877	82%	161,280	16%	24,674	2%
2008	532,636	62%	292,064	34%	37,604	4%
2009	597,852	73%	194,796	24%	29,583	4%
2010	476,260	60%	290,772	37%	26,064	3%
2011	330,698	55%	234,257	39%	36,697	6%
2012	1,017,927	63%	511,193	32%	83,324	5%
2013	1,694,646	66%	797,330	31%	77,542	3%
2014	1,112,011	67%	505,484	30%	45,107	3%
2015	991,786	52%	882,219	46%	50,621	3%

Data source: The SEFSC ACL database updated as of 1/5/17. Red grouper utilized landings based on the Marine Recreational Information Program (MRIP) dataset.

APPENDIX D. LANDINGS OF GREATER AMBERJACK

Table 1. Landings of greater amberjack by private anglers, charter vessels, and headboats in pounds and as a percentage of total landings.

Year	Private Anglers		Charter Vessels		Headboats	
	Pounds	% of Total Landings	Pounds	% of Total Landings	Pounds	% of Total Landings
1981	895,590	94%	38,329	4%	15,646	2%
1982	1,645,597	44%	1,319,386	33%	951,210	24%
1983	722,640	29%	1,303,819	52%	483,232	19%
1984	71,767	17%	743,162	74%	94,146	9%
1985	801,701	37%	1,031,144	47%	341,216	16%
1986	1,707,377	28%	3,628,557	60%	750,632	12%
1987	1,420,627	26%	3,871,722	68%	378,888	7%
1988	920,677	40%	1,261,786	53%	173,613	7%
1989	3,711,592	71%	2,235,716	27%	204,289	2%
1990	416,518	60%	197,560	29%	77,654	11%
1991	194,685	9%	2,854,402	87%	102,687	3%
1992	651,209	49%	1,728,416	43%	312,152	8%
1993	693,319	32%	1,431,707	59%	225,868	9%
1994	427,551	24%	1,160,886	64%	213,119	12%
1995	458,692	61%	149,963	20%	143,994	19%
1996	577,927	42%	643,207	47%	139,588	10%
1997	354,634	33%	603,131	56%	125,349	12%
1998	233,220	56%	303,981	34%	88,595	10%
1999	351,489	43%	407,926	48%	73,508	9%
2000	313,854	36%	570,974	54%	100,732	10%
2001	791,315	57%	512,556	37%	89,436	6%
2002	857,969	40%	1,114,754	52%	160,636	8%
2003	1,630,455	56%	1,072,018	37%	199,347	7%
2004	1,214,647	51%	1,068,814	45%	108,769	5%
2005	1,089,981	72%	365,893	24%	61,281	4%
2006	589,351	35%	1,030,943	61%	79,892	5%
2007	291,797	34%	516,253	60%	59,436	7%
2008	785,504	60%	478,614	36%	54,544	4%
2009	723,964	49%	653,160	44%	103,191	7%
2010	711,282	58%	460,740	38%	53,203	4%
2011	303,351	32%	583,813	61%	62,835	7%
2012	592,952	48%	546,086	44%	99,680	8%
2013	941,655	58%	605,860	37%	73,246	5%
2014	596,100	65%	316,519	31%	46,435	4%
2015	591,711	42%	759,017	54%	58,513	4%

Data source: The SEFSC ACL database updated as of 1/5/17. Greater amberjack utilized landings based on the Marine Recreational Information Program (MRIP) dataset.