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Gulf of Mexico Red Snapper Recreational Data Calibration and Recreational Catch Limits

Draft Framework Action to the Fishery Management Plan for Reef Fish Resources in the Gulf of Mexico

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FRAMEWORK ACTION COVER SHEET

Framework Action to the Fishery Management Plan for Reef Fish Resources of the Gulf of Mexico: Modification of Gulf of Mexico Red Snapper Recreational Data Calibration and Recreational Catch Limits, including Environmental Assessment, Regulatory Impact Review and Regulatory Flexibility Act Analysis.

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ABBREVIATIONS USED IN THIS DOCUMENT

ACL	annual catch limit
AM	accountability measure
AP	Advisory Panel
ATCA	Atlantic Tunas Convention Act
Atlantic HMS	Atlantic Highly Migratory Species Management Division
bandit	electric hook-and-line gear
BiOp	biological opinion
CFR	code of federal regulations
CMP	coastal migratory pelagic
Council	Gulf of Mexico Fishery Management Council
DLMToolkit	Data Limited Methods Toolkit
DPS	distinct population segment
DWG	Deepwater grouper
EA	environmental assessment
EEZ	exclusive economic zone
EFH	essential fish habitat
EJ	environmental justice
E.O.	executive order
ELB	electronic logbook
ESA	Endangered Species Act
FHS	for-hire survey
FMP	Fishery Management Plan
FWC	Florida Fish and Wildlife Commission
Gulf	Gulf of Mexico
gw	gutted weight
HAPC	habitat area of particular concern
HMS	highly migratory species
ICCAT	International Commission for the Conservation of Atlantic Tunas
IFQ	individual fishing quota
IPCC	Intergovernmental Panel on Climate Change
KM	king mackerel
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MMPA	Marine Mammal Protection Act
mp	million pounds
MPA	marine protected area
MRIP	Marine Recreational Information Program
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OY	optimum yield
PAH	polycyclic aromatic hydrocarbons
Reef Fish FMP	Fishery Management Plan for Reef Fish Resources in the Gulf of Mexico
RFA	Regulatory Flexibility Act
RFFA	reasonably foreseeable future actions

RIR	regulatory impact review
RQ	regional quotient
SA	South Atlantic
SAFE	Stock Assessment and Fishery Evaluation
Secretary	Secretary of Commerce
SEDAR	Southeast Data and Review
SEFSC	Southeast Fisheries Science Center
SERO	Southeast Regional Office
SM	Spanish mackerel
SBREFA	Small Business Regulatory Enforcement Fairness Act
SPGM	Gulf of Mexico Shrimp Commercial Fishing Permit
SRHS	Southeast Region Headboat Survey
SSC	Scientific and Statistical Committee
SWG	shallow water grouper
tpy	tons per year
VOC	volatile organic compounds
VMS	vessel monitoring system

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CHAPTER 1. INTRODUCTION

1.1 Background

The Gulf of Mexico (Gulf) red snapper stock is currently under a rebuilding plan. Consistent with this rebuilding plan, both commercial and recreational catch limits have been allowed to increase as the stock has recovered. Since the action considered in this document focuses on the recreational fishing sector, this section will not discuss the commercial fishing sector.

From 1996 – 2014, the recreational fishing season for red snapper in Gulf federal waters became progressively shorter. Despite regular increases in the recreational annual catch limit (ACL) since 2010, shorter federal seasons continued as the catch limit was caught more quickly and inconsistent (longer) state water seasons were enacted. In 2015, the recreational sector was divided into a private angling component and a federal for-hire component (GMFMC 2014a), which receive 57.7% and 42.3% of the total recreational ACL, respectively. The federal for-hire component consists of fishermen fishing from vessels with a federal charter/headboat permit for Gulf reef fish and are unaffected by the actions considered in this framework action. The private angling component consists of fishermen fishing from privately owned and rented vessels, and for-hire vessels (charter boats and headboats) without a federal permit (i.e., state-licensed for-hire vessels). For-hire vessels without federal permits are restricted to fishing for red snapper in state waters.[1]

In large part due to the decreased duration of red snapper recreational fishing seasons, fishermen from different areas of the Gulf requested more regional flexibility in private recreational red snapper management so that regulations could allow for greater socioeconomic benefits to their particular regions. In response, each of the five Gulf states requested and were issued exempted fishing permits (EFPs) for the 2018 and 2019 fishing years. The EFPs authorized the marine resource management agencies from each Gulf state to allow recreational red snapper harvest by the private angling component within certain time periods that were determined by the respective states. The purpose of the EFPs was to allow the states to demonstrate the effectiveness of state management of recreationally caught red snapper and data collection methods through the 2-year pilot programs. In these pilot programs, each Gulf state managed its fishermen under a state-specific ACL. The states tracked their red snapper landings using their own respective

[1] Federal waters refer to the area extending from the seaward boundaries of the Gulf States of Alabama, Florida, Louisiana, Mississippi, and Texas, as those boundaries have been defined by law, out to 200 nautical miles (nm) from shore. State waters refer to the area from shore out to the seaward boundary of each state. The seaward boundary of Florida on the Gulf coast and Texas is 9 nm from shore. The seaward boundary of Alabama, Mississippi, and Louisiana is generally 3 nm from shore. However, the 2016 Department of Commerce Appropriations Act extended the seaward boundary of Alabama, Mississippi, and Louisiana to 9 nm from shore for purposes of management activities under the Fishery Management Plan for Reef Fish Resources of the Gulf of Mexico (Reef Fish FMP) (GMFMC 1981), which includes the management of red snapper. Therefore, for the purpose of this action, state waters extend 9 nm from shore for all five Gulf states.

monitoring programs and reported their landings to the National Marine Fisheries Service (NMFS).

Red Snapper Recreational Data and Recalibration

NMFS created the Marine Recreational Fisheries Statistics Survey (MRFSS) in 1979. In the Gulf, MRFSS collected recreational data on catch and effort, including for red snapper, since 1981. MRFSS included both offsite telephone surveys and onsite interviews at marinas and other access points where recreational anglers fish. In 2008, the Marine Recreational Information Program (MRIP) replaced MRFSS to meet increasing demand for more precise, accurate, and timely recreational catch estimates. Until 2013, recreational catch, effort, and participation were estimated through a suite of independent but complementary surveys: telephone surveys of households and for-hire vessel operators that collected information about recreational fishing activity; and an angler intercept survey that collected information about the fish that were caught.

The MRIP Access Point Angler Intercept Survey (APAIS) began incorporating a new survey design in 2013. This new design addressed concerns regarding the validity of the survey approach; specifically, that trips recorded during a given time period are representative of trips for a full day (Foster et al. 2018). The more complete temporal coverage with the new survey design provides for consistent increases or decreases in APAIS angler catch rate statistics, which are used in stock assessments and management, for at least some species (NOAA Fisheries 2019).

MRIP also transitioned from the legacy Coastal Household Telephone Survey (CHTS) to a new mail survey (Fishing Effort Survey [FES]) beginning in 2015, and in 2018, the FES replaced the CHTS. Both survey methods 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. The CHTS used random-digit dialing of homes in coastal counties to contact fishermen. The new mail-based FES uses fishing license and registration information as one way to identify and contact fishermen (supplemented with data from the U.S. Postal Service). NMFS conducted side-by-side testing of CHTS and FES from 2015 to 2017 to develop a calibration model for transitioning between the two data currencies. Because federal red snapper in the Gulf are currently managed under the MRIP-CHTS currency, but collected using MRIP-FES, landings estimates must be back-calibrated from MRIP-FES to MRIP-CHTS for quota monitoring purposes.

Reef Fish Amendments 50(A-F)

In 2017, the Gulf of Mexico Fishery Management Council (Council) began working on amendments to create a state management program for red snapper that would build off of the state pilot programs. This comprehensive process included the development of six amendments for the Fishery Management Plan for Reef Fish Resources in the Gulf (Reef Fish FMP), including a Program Amendment (GMFMC 2019a) and five Individual State Amendments, one for each Gulf state (GMFMC 2019b-e).

The Individual State Amendments (GMFMC 2019b-e) established a structure to delegate some management authority for recreational fishing of red snapper by private anglers in federal waters to the Gulf states. In the Program Amendment, each state was allocated a portion of the red snapper private angling ACL (Table 1.1.1.) and was given authority to set the private angling fishing season, bag limit, and minimum size limit (between 14-18 inches total length [TL]). Each Individual State Amendment also included accountability measures (AMs) that require any overage of a state's ACL be deducted in the following year; this is known as a payback provision.

Table 1.1.1. Percentage of total private angling ACL (quota) and the 2020 ACL for each Gulf state (GMFMC 2019a).

State	**LA**	**MS**	**AL**	**FL**	**TX**
Percentage of Total Private Angling ACL	19.120	3.550	26.298	48.222	6.210
2020 State ACL (pounds)	816,233	151,550	1,122,662	1,913,451	265,105

State Fishery-Dependent Reporting Programs

During the EFP years and upon implementation of Reef Fish Amendments 50A-F on February 6, 2020, NMFS has used MRIP data in concert with the landings and effort data collected from some Gulf state data collection programs to monitor private recreational red snapper. However, the varied sampling approaches used by the state programs produce landings estimates that differ from estimates generated by MRIP. The state programs aim to collect timelier and more accurate fishery-dependent data for red snapper, and increasingly, other species also. However, the implementation dates, species collected, and methodologies vary among states. The survey designs used in Louisiana, Mississippi, Alabama, and Florida have also been certified by MRIP. However, this certification does not mean that the estimates produced by the state surveys are equivalent to the MRIP estimates, since each survey design is subject to various methodological assumptions and methods that could affect estimates of catch and effort.

Florida: State Reef Fish Survey

Florida implemented the multispecies Gulf Reef Fish Survey (GRFS) in May of 2015, which became the State Reef Fish Survey (SRFS) in July of 2020. GRFS received its MRIP certification in December of 2018. Information is collected from private recreational anglers and includes thirteen reef fish species: red snapper, greater and lesser amberjack, almaco jack, banded rudderfish, gray triggerfish, mutton snapper, yellowtail snapper, vermilion snapper, gag, red and black grouper, and hogfish. The survey is voluntary but Florida-licensed saltwater fishermen that intend to fish for or harvest certain reef fish from a private vessel are required to get a free angler endorsement for the program, which acts to identify the sample universe. Similarly designed to the MRIP survey, the SRFS runs side-by-side with MRIP using angler interview data from both surveys; SRFS requests catch data through random angler intercepts and gathers effort data through a statistically designed mail survey.

Alabama: Snapper Check

Alabama's Department of Conservation and Natural Resources (ALDCNR) implemented Snapper Check in 2014 to collect red snapper data from private recreational anglers and state and

federal for-hire captains to provide more precise estimates of Alabama red snapper harvest. Snapper Check requires anglers to provide in-season catch and effort data on red snapper once they return from their fishing trips. The program will be expanding to request catch data on greater amberjack and gray triggerfish in 2021. For the 2020 fishing season, anglers were required to purchase a Reef Fish Endorsement prior to targeting certain Gulf reef fish species, including red snapper. Anglers report to the program through the Outdoor Alabama mobile application (app) or online. Biological sampling is conducted by ALDCNR staff through dockside intercepts. Snapper Check completed the MRIP certification process in June of 2018.

Mississippi: Tails n' Scales

The Mississippi Department of Marine Resources' (MDMR) Tails n' Scales (TNS) program began mandatory reporting in 2015 for all private recreational anglers and state and federal for-hire captains landing red snapper in Mississippi. Anglers report through the TNS app, online, or by calling a toll-free number. All anglers must have a TNS authorization number prior to fishing for red snapper, and must provide trip-specific information such as number of red snapper harvested and number released in order to obtain their next trip authorization number. MDMR staff gather biological information and validate angler-reported data through random dockside intercepts at public launch sites. MDMR recently began requesting information from anglers on greater amberjack. TNS received MRIP certification in June of 2018.

Louisiana: LA Creel Survey

Louisiana's Department of Wildlife and Fisheries (LDWF) LA Creel survey began in 2014, replacing the MRIP data collection program in Louisiana, in an effort to gain more precise, localized data to better manage their fisheries. LDWF biologists complete dockside interviews, asking state and federal charter captains and private recreational anglers about their fishing activities on all saltwater finfish species. Anglers and charter captains are also called weekly and emailed to interview them about their fishing activities from the previous week. Together, these data provide information to calculate landings and effort estimates. The program design has been tailored to fit Louisiana's fisheries and coastal areas. Survey sites have been stratified to account for inshore versus offshore fishing activities. Offshore fishermen are also required to possess an Offshore Landing Permit prior to fishing for certain offshore species, including red snapper. LA Creel provides data on area-specific harvest to customize management of fisheries within basins. Since the end of 2015, LA Creel has been the only recreational catch and effort survey in Louisiana, effectively replacing MRIP. LA Creel was certified by MRIP in December of 2017.

Texas: Texas Parks and Wildlife Department's (TPWD) Marine Sport-Harvest Monitoring Program

The Texas Parks and Wildlife Department (TPWD) has been operating its own creel surveys for saltwater anglers since 1974. Survey methods were adjusted to the current format, which was adopted in 1983. Surveys are conducted seasonally throughout the year based on a high-use (May 15 – November 20) and low-use season (November 21 – May 14). Information is collected from private recreational and for-hire fishermen through dockside intercepts that provide data to estimate landings and effort. TPWD also counts empty boat slips and boat trailers at public access points to estimate the number of fishing trips being taken; trips originating from and/or returning to private access points are not accounted for. TPWD partners

with the Harte Research Institute to supplement its creel data with catch and effort data supplied from the iSnapper program. iSnapper requests private anglers and charter captains to electronically report information through an app or website after every trip. TPWD asks shore-based coastal anglers to provide information on their catch and fishing effort. These surveys are done periodically based on previous months' angler count data to determine if the proportion of landings from shore and vessel remain the same. Texas has never sought MRIP certification for its creel surveys.

Why is calibration (common currency) needed?
Catch and effort surveys and associated estimates of catch must meet both stock assessment and management needs. Annual trend information for catch over the range of a fish stock is desirable for a meaningful evaluation of the status of the entire stock, and is available for Gulf red snapper through MRIP. However, using MRIP for in-season monitoring at the state level is challenging because MRIP is a general survey designed to produce catch estimates for a large number of species over a large area. The need for a consistent time series that accounts for changes in survey methods is critical to a meaningful interpretation of catch trends and indices of abundance derived from survey estimates, and is necessary to manage landings to the ACL. The purpose of calibration is simply to allow estimates produced using one method to be expressed in the units of a different method. In the case of the Gulf red snapper, calibrations facilitate conversion of ACLs derived from CHTS to the state survey units, in which the CHTS-based ACLs are monitored. Calibration facilitates conversion of estimates produced using different methods in each state to a common standard, which facilitates the determination of a representative Gulf-wide estimate of harvest.

Red Snapper Calibration Workshops
Over the past several years, multiple workshops have been hosted by the Gulf States Marine Fisheries Commission and the National Oceanic and Atmospheric Administration (NOAA) Office of Science and Technology (OST) to improve recreational fisheries data. In 2018, a workshop was held to determine how to make use of the state specific surveys, how to maintain a comparable long-term time series of landings, how to generate comparable catch estimates among states (i.e., common data currency), and how to develop and implement a process to accomplish these goals. On August 5, 2020, a subsequent workshop was held to clarify the processes and methodologies used to establish calibration ratios to allow state survey data to be converted to MRIP-CHTS, making those data comparable to the ACLs that were developed and established using the most recent red snapper stock assessment (SEDAR 52 2016). At this workshop, NMFS staff presented draft calibration results based on NOAA statistical consultants' input.

On August 11, 2020, the Council's Scientific and Statistical Committee (SSC) was convened to review the recommendations from the August 5, 2020, NOAA OST red snapper calibration workshop and make recommendations to the Council about the appropriateness of the proposed calibration ratios. The state-specific surveys generate catch and effort data in their native data currencies, which need to be calibrated to the MRIP-CHTS currency for quota monitoring and stock assessment purposes. No ratio adjustment is available for Texas because TPWD catch info is used in the stock assessment without modification, since no viable comparison between TPWD creel surveys and NMFS surveys exists. It was necessary for the four other Gulf states to

develop ratios to calibrate their data to MRIP-CHTS, with these ratios being reviewed during the August 5th workshop. At that workshop, Florida, Alabama, Mississippi, and Louisiana presented their revised methods for calculating their respective state-specific ACLs. Alabama preferred calibrating the Snapper Check survey directly to MRIP-CHTS. Mississippi recommended using a weighting procedure to calibrate its TNS survey; this procedure was ultimately not supported by the consultants, and an approach similar to that used for Florida was applied until Mississippi presents an alternative method. Louisiana clarified that their proposed calibration ratio used landings data from all six MRIP waves in 2015, and did not exclude any waves as was written in the NMFS consultant evaluation; the original NMFS consultant report was corrected for this error. Both estimates for Florida and Mississippi used a combination of ratios from the respective state survey to MRIP-FES landings and the MRIP-FES to MRIP-CHTS landings.

Calibration Recommendations

Alabama's Snapper Check to MRIP-CHTS ratio was calculated from the ratio of the means of the 2018-2019 landings in pounds, and was equal to 0.4875, which would reduce the state's ACL from 1,122,662 pounds (lbs) whole weight (ww) in MRIP-CHTS currency to 550,104 lbs ww in Snapper Check currency. Louisiana's LA Creel ratio to MRIP-CHTS was equal to 1.06, which would increase Louisiana's ACL from 816,223 lbs ww in MRIP-CHTS currency to 865,207 lbs ww in LA Creel currency.

For Florida and Mississippi, two ratios were used to convert from the state surveys to MRIP-CHTS. Both Florida and Mississippi used the mean of a three-year (i.e., 2015-2017) time series of MRIP-FES to MRIP-CHTS red snapper private mode landings. For Florida, private mode red snapper landings from May 2015 through December 2019 were used to estimate a GRFS (now SRFS) to MRIP-FES ratio. When the Florida ratios were combined, the result was a ratio of 1.0602 between GRFS and MRIP-CHTS, and a resultant ACL increase from 1,913,451 lbs ww (MRIP-CHTS) to 2,028,641 lbs ww (GRFS [SRFS]). The Mississippi TNS to MRIP-FES ratio was based on the mean red snapper landings from 2018 and 2019. When the two ratios were combined, the result was a TNS to MRIP-CHTS ratio of 0.3840. Mississippi's ACL calibrated to this ratio would result in a decrease from 151,550 lbs ww (MRIP-CHTS) to 58,189 lbs ww (TNS).

The SSC concluded that the methods used to generate conversion ratios between Gulf state surveys and MRIP data are appropriate for monitoring of the red snapper state-specific ACLs. Those ratios are shown in Table 1.1.2.

Table 1.1.2. Calibration ratios recommended by the SSC to convert state landings data collected in their respective state-specific data collection program to MRIP-CHTS currency for monitoring the state ACLs.

State	Ratio of state landings to MRIP- CHTS landings
Florida	1.0602
Alabama	0.4875
Mississippi	0.3840
Louisiana	1.06
Texas	1*

*No calibration adjustment is made to Texas' data.

1.2 Purpose and Need

The purpose of this action is to reduce the likelihood of exceeding the red snapper private angling component ACL by adjusting the state catch limits to account for the monitoring programs used by each Gulf state.

The need for this action is use the best scientific information available to prevent overfishing while achieving optimum yield, consistent with the red snapper rebuilding plan.

1.3 History of Management

This history of management covers events pertinent to recreational red snapper and the Council's consideration of state management for the recreational harvest of red snapper. A complete history of management for the Reef Fish Fishery Management Plan (FMP) is available on the Council's website.[2]

Prior to 1997, the recreational red snapper season was open year-round. Catch levels were controlled through minimum size limits and bag limits. The Sustainable Fisheries Act of 1996 required the establishment of quotas for recreational and commercial red snapper that, when reached, result in a prohibition on the retention of fish caught by each sector, respectively, for the remainder of the fishing year. From 1997 through 1999, NMFS implemented the recreational quota requirement through an in-season monitoring process that projected closing dates a few weeks in advance. For the years 1997 through 1999, the recreational red snapper season was closed earlier each year. In 1999, an emergency rule temporarily raised the recreational red snapper minimum size limit from 15 to 18 inches TL towards the end of the season from June 4 through August 29 in an attempt to slow down the retained harvest rate [64 FR 30445]. Without this emergency rule, the season would have closed on August 5. However, the rule resulted in a large increase in dead discards and the size limit was allowed to revert back to 15 inches TL the following year. Additional details regarding the seasons and regulation changes for red snapper are presented in Hood et al. (2007).

A February 2000 regulatory amendment (GMFMC 2000) replaced the system of in-season monitoring and closure projections with a fixed season based on a pre-season projection of when the recreational quota would be reached. The season for 2000 and beyond was initially set at April 15 through October 31, with a 16-inch TL minimum size limit, 4-fish bag limit, and zero bag limit of red snapper by the captain and crew of for-hire vessels. Shortly before the regulatory amendment was submitted to NMFS, the Council, at the request of representatives of the for-hire industry, withdrew the zero bag limit proposal for captain and crew. NMFS recalculated the season length under the revised proposal, and as a result, implemented the

[2] http://www.gulfcouncil.org/fishery_management_plans/reef_fish_management.php

regulatory amendment with a recreational fishing season of April 21 through October 31. This recreational fishing season remained in effect through 2007.

In 2008, Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007) revised the rebuilding plan for red snapper. For the recreational sector, the rule implemented a June 1 through September 30 fishing season, 16-inch TL minimum size limit, 2-fish bag limit, and zero bag limit for captain and crew of for-hire vessels. The implementing regulations for this amendment created a June 1 through September 30 fishing season by establishing fixed closed seasons of January 1 through May 31, and October 1 through December 31.

The amendment also addressed differences in shrimp and red snapper fishing effort between the western and eastern Gulf, and the impacts of fishing on the red snapper rebuilding plan. The Council considered options for modifying recreational red snapper fishing effort, including different season opening dates and weekend only or consecutive seasons, for the following regions: Texas and the rest of the Gulf; east and west of the Mississippi River; and Gulf-wide regulations. The Council ultimately opted to maintain consistent Gulf-wide regulations, with a recreational season from June 1 through September 15.

The Southeast Data Assessment and Review (SEDAR) 7 red snapper assessment provided an option to set two regional total allowable catches with the Mississippi River as the dividing line (SEDAR 7 2005; SEDAR 7 Update 2009). These assessments assumed there were two sub-units of the red snapper stock within the Gulf, separated commercially at the Mississippi River (shrimp statistical grids 12 and 13) and recreationally at the Mississippi/Louisiana state line.

When Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007) was submitted to NMFS, the Council requested that the five Gulf states adopt compatible regulations in state waters. Florida adopted a compatible 2-fish bag limit, but maintained its state red snapper fishing season of April 15 through October 31, 78 days longer than the federal fishing season. Texas also maintained its four-fish bag limit and year-round fishing season in its state waters. Prior to the start of the 2008 season, NMFS recalculated its projections for the recreational red snapper season in light of the state regulations, and projected that there would be a 75% probability that the recreational quota would not be exceeded if the season closed on August 5. As a result, NMFS set the 2008 season to be June 1 through August 4 [73 FR 15674]. In 2009, NMFS again recalculated its projections for the season length prior to the start of the recreational season and announced that the recreational season would be June 1 to August 15 [74 FR 21558].

A February 2010 regulatory amendment (GMFMC 2010) increased the total allowable catch, which increased the recreational quota. However, NMFS estimated that in 2009, the recreational sector overharvested its quota by approximately 75%. In recalculating the number of days needed to fill the recreational quota, even with the quota increase, NMFS projected that the 2010 season would need to be shortened to June 1 through July 24, and published notice of those dates prior to the start of the recreational fishing season [75 FR 23186].

In April 2010, the *Deepwater Horizon* MC252 deep-sea drilling rig exploded and sank off the coast of Louisiana. Because of the resulting oil spill, approximately one-third of the Gulf was closed to fishing for much of the summer months. The direct loss of fishing opportunities due to

the closure, plus the reduction in tourism throughout the coastal Gulf, resulted in a much lower catch than had been projected. After the recreational season closed on July 24, NMFS estimated that 68% of the recreational quota remained unharvested (NMFS 2010). However, due to the fixed October 1 through December 31 closed season, NMFS could not reopen the recreational season without an emergency rule to suspend the closure. Consequently, the Council requested an emergency rule to provide the NMFS Regional Administrator with the authority to reopen the recreational red snapper season. After considering various reopening scenarios, the Council requested that the season be reopened for eight consecutive weekends (Friday, Saturday and Sunday) from October 1 through November 21 (24 fishing days) [75 FR 58334].

A January 2011 regulatory amendment (GMFMC 2011) increased the red snapper total allowable catch. The resulting final rule established a 48-day recreational red snapper season, running June 1 through July 19 [76 FR 23911]. On August 12, 2011, NMFS published an emergency rule that, in part, increased the recreational red snapper quota for the 2011 fishing year and provided the agency with the authority to reopen the recreational red snapper season later in the year, if the recreational quota had not been filled by the July 19 closing date. However, based on available recreational landings data through June, NMFS calculated that 80% of the recreational quota had been caught. With the addition of July landings data plus Texas Parks and Wildlife Department survey data, NMFS estimated that total recreational landings were well above the quota. Thus, no unused quota was available to reopen the recreational fishing season.

A March 2012 regulatory amendment (GMFMC 2012) increased the commercial and recreational quotas and removed the fixed recreational season closure date of October 1. The recreational season opened June 1 through July 11. However, the north-central Gulf experienced extended severe weather during the first 26 days of the 2012 recreational red snapper fishing season, including Tropical Storm Debby. Because of the severe weather, NMFS extended the season by 6 days and closed on July 17 [77 FR 39647].

A March 2013 framework action (GMFMC 2013a) increased the commercial and recreational red snapper quotas. This was the result of new rebuilding projections based on the 2009 update assessment (SEDAR 7 Update 2009) that were revised to account for additional landings during 2009-2012. On March 25, 2013, an emergency rule gave NMFS the authority to set the closure date of the red snapper recreational season in federal waters off individual Gulf states [78 FR 17882]. The closure dates were dependent on whether state regulations were consistent with federal regulations for the red snapper recreational season length or bag limit. On May 31, 2013, the U.S. District Court in Brownsville, Texas, set aside that emergency rule.

As a result of the Court decision on the emergency rule, on June 10, 2013, the federal red snapper recreational season was adjusted to be the same in federal waters off all five Gulf states. Considering the catches expected later in the year during the extended state-water seasons off Texas, Louisiana, and Florida, NMFS projected the Gulf-wide federal red snapper recreational season could be 28 days long [78 FR 34586].

In July 2013, the Council reviewed a new benchmark assessment (SEDAR 31 2013) which showed that the red snapper stock was rebuilding faster than projected, partly due to strong recruitment in some recent years. Combined with a new method for calculating the acceptable

biological catch (ABC), the Council's SSC increased the ABC for 2013, but warned that the catch levels would have to be reduced in future years if recruitment returned to average levels.

After incorporating a buffer to the ACL to reduce the possibility of having to later reduce the quota, the Council further increased the 2013 commercial and recreational quotas (GMFMC 2013b). This increase occurred too late to extend the June recreational season, so the Council requested that NMFS reopen the recreational season. NMFS announced a supplemental season of October 1 through 14, 2013 [78 FR 57313].

In 2014, NMFS initially announced a 40-day recreational season [78 FR 76758]. However, in March 2014, as a result of a legal challenge, the U.S. District Court for the District of Columbia found that there was not an adequate system of accountability measure (AMs) in place to prevent the recreational red snapper sector from exceeding its quota and that NMFS did not use the best scientific information available. To address the Court's decision and reduce the probability that the recreational sector would exceed its quota, the projected season length for 2014 needed to be revised to incorporate MRIP) landings, and additional AMs needed to be implemented. NMFS determined that including the 2013 MRIP landings data resulted in a 15-day federal season. During the April 2014 meeting, the Council requested that NMFS implement an emergency rule establishing an annual catch target (ACT) determined by applying a 20% buffer to the recreational quota (which is equivalent to the recreational ACL), to take into account uncertainty in recreational landings estimates. Shortly after the April 2014 meeting, Louisiana declared the state's red snapper season would be open through December 31, 2014. Using the ACT selected by the Council and taking into account the extended Louisiana fishing season, NMFS set a 2014 federal red snapper season of 9 days [79 FR 27768].
An October 2014 framework action (GMFMC 2014a) implemented permanent AMs that 1) established an ACT that is 20% lower than the quota (equal to the ACL) and set the recreational season length based on the ACT, and 2) established an overage adjustment to be applied while the red snapper stock is overfished that mitigates the effects of a quota overage by reducing the ACL in the following year.

Amendment 40 (GMFMC 2014b) formally adopted the designation of component ACLs for red snapper, established private angling and federal for-hire component ACTs for the years 2015-2017, and established separate in-season closure provisions for each component. 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.

The Council approved a framework action in April 2015 (GMFMC 2015a) that increased the red snapper stock quota for the years 2015-2017. NMFS estimated the recreational red snapper fishing season length in federal waters for each component and established a 10-day season for the private angling component and a 44-day season for the federal for-hire component [80 FR 24832].

Implemented in May 2016, Amendment 28 (GMFMC 2015b) revised the commercial and recreational sector allocations of the red snapper ACLs 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. For 2016, NMFS estimated the recreational red snapper fishing season length in federal waters for each component and established an 11-day season for the private angling component and a 46-day season for the federal for-hire component.

On March 3, 2017, a U.S. district court vacated Amendment 28 and subsequently ordered that the sector quotas for 2017 be set consistent with the previous sector allocations of 51% commercial and 49% recreational. For 2017, NMFS initially established a 3-day fishing season for the private angling component and a 49-day season for the federal for-hire component [FR 82 21140]. The short private angling season in 2017 was due in part to a quota overage in 2016, which required an overage adjustment to the 2017 quota because the stock was overfished. The short season was also due to landings projected to occur in state waters while federal waters were closed. Shortly after the private angling season ended, NMFS reopened the private angling fishing season for an additional 39 days. During this time, the fishing season was open Fridays through Sundays, plus July 3-4 and September 4 [82 FR 27777].

Amendment 44 (GMFMC 2017a) changed the minimum stock size threshold for seven species in the Reef Fish FMP, including red snapper. After the approval of Amendment 44, the Gulf red snapper stock was reclassified as not overfished but rebuilding, because the biomass for the stock is currently estimated to be greater than the minimum stock size threshold but still below the rebuilding target.

For 2018, NMFS established a 51-day red snapper fishing season for the federal for-hire component [83 FR 17623]. For the private angling component, the 2018 and 2019 red snapper fishing seasons were set by the individual states through EFPs approved by NMFS.

The Council recently approved two framework actions that affect recreational red snapper management, which became effective on April 4, 2019. Modification of Gulf of Mexico Red Snapper and West Florida Hogfish Annual Catch Limits (GMFMC 2018a) would increase the private angling and federal for-hire component ACLs and ACTs beginning in 2019. Modification to the Recreational Red Snapper Annual Catch Target Buffers (GMFMC 2018b) reduces the federal for-hire buffer by setting the ACT at 9% below the component's ACL for the 2019 fishing season only.

Reef Fish Amendments 50A-F: At its April 2019 meeting, the Council approved Amendments 50A-F to the Reef Fish FMP (GMFMC 2019) which became effective February 6, 2020. Amendments 50A-F established a state management program for the private angling component's harvest of red snapper. Under Amendments 50A-F, each Gulf state is responsible for managing its annual allocation of the red snapper private angling component ACL, using size limits, bag limits, and seasonal closures. If a state exceeds its allocation in a given fishing year, then the amount of the overage would be deducted from that state's quota for the following fishing year. The individual Gulf states are responsible for their own quota monitoring, and each has a data collection program in place to monitor that state's private angling landings. The individual states would determine if additional catch limit buffers (e.g., an ACT set lower than an ACL, with the fishing season based on the ACT) are necessary to successfully manage that

state's allocated quota. The federal for-hire component's harvest of red snapper will continue to be federally managed.

Based on information provided by TPWD, NMFS determined that landings of red snapper off Texas for the private angling component, which includes landings for charter vessels, in 2019 were 375,616 lb (170,377 kg), which is 110,526 lb (50,134 kg) greater than 2019 Texas allocation of the private angling component ACL. Accordingly, NMFS issued a temporary rule on August 24, 2020 (85 FR 52055) for the 2020 fishing year and reduced the Texas regional management area private angling component ACL for Gulf red snapper by the ACL overage amount of 110,526 lb (50,134 kg), which resulted in a revised private angling ACL for Texas of 154,579 lb (70,116 kg). Consistent with the reduction in the Texas regional management area private angling component ACL, NMFS also reduced the 2020 total recreational sector ACL to 7,288,474 lb (3,305,996 kg) and the total private angling component ACL to 4,158,474 lb (1,886,252 kg). Therefore, on August 24, 2020, NMFS reduced the 2020 private angling component ACL of Gulf red snapper for the Texas regional management area and that reduction remains in effect through the remainder of the current fishing year on December 31, 2020.

CHAPTER 2. MANAGEMENT ALTERNATIVES

2.1 Action 1: Modification of Gulf of Mexico (Gulf) State-specific Red Snapper Private Angling Component Annual Catch Limits

Alternative 1: No Action – Retain the state-specific red snapper private angling component annual catch limits (ACL) established in Amendment 50A for the Fishery Management Plan (FMP) for Reef Fish Resources in the Gulf (Reef Fish FMP). The state specific allocation percentages and ACLs are as follows:

State	Allocation	ACL (in MRIP-CHTS)
Alabama	26.298%	1,122,662
Florida	44.822%	1,913,451
Louisiana	19.120%	816,233
Mississippi	3.550%	151,550
Texas	6.210%	265,105

ACLs are in pounds (lbs) whole weight (ww).

Alternative 2: Modify the state-specific red snapper private angling component ACLs using the ratio corrections developed by the National Oceanic and Atmospheric Administration's (NOAA) Office of Science and Technology (OST) and the respective Gulf states. These ratios and the resulting ACLs in each state's currency are as follows:

State	Ratio	ACL (in State Currency)
Alabama	0.4875	547,298
Florida	1.0602	2,028,641
Louisiana	1.06	865,207
Mississippi	0.3840	58,195
Texas	1.00	265,105

ACLs are in pounds (lbs) whole weight (ww).

Alternative 3: Modify the state-specific red snapper private angling component ACLs by establishing a "State Management ACL" that is 23% below the private angling component quota and applying the allocation percentages established in Amendment 50A of the Reef Fish FMP. The resulting state ACLs are as follows:

State	Adjusted ACL (in State Currency)
Alabama	864,450
Florida	1,473,357
Louisiana	628,499
Mississippi	116,694
Texas	204,131

ACLs are in pounds (lbs) whole weight (ww).

Discussion:

In this action, the Gulf of Mexico Fishery Management Council (Council) would establish a structure to ensure that the combined private angling component ACLs for Gulf states will not exceed the total private component ACL established by the National Marine Fisheries Service (NMFS) and the Council.

Amendments 50A-F to the Reef Fish FMP established state management of the private angling component of the red snapper recreational sector. Under **Alternative 1**, each Gulf state would continue to manage its private angling component ACL as established in Amendment 50A, which are a percentage of the total private angling component ACL and are in the Marine Recreational Information Program's Coastal Household Telephone Survey (MRIP-CHTS) data currency. The state allocations and ACLs established in Amendment 50A are: Alabama, 26.298% (1,122,662 lbs ww); Florida, 44.822% (1,913,451 lbs ww); Louisiana, 19.120% (816,233 lbs ww); Mississippi, 3.550% (151,550 lbs ww); and Texas, 6.210% (265,105 lbs ww).

Alternative 1 would allow each state to continue to monitor and estimate landings using their own data collection program. Some of the estimates generated by these state programs differ from estimates generated using MRIP-CHTS, which were used in the most recent stock assessment to generate the current ACLs. For 2018 and 2019, estimates of total state landings in MRIP-CHTS units exceed the total private angling component ACL. As a result, **Alternative 1** would continue to allow the monitoring of some state's landings in a currency that is not directly comparable to the ACLs, and may continue to result in total landings of red snapper exceeding the ACLs for those states and the total private angling component ACL. This is inconsistent with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act, meaning that **Alternative 1** is not a viable alternative.

Alternative 2 would modify the state-specific red snapper private angling component ACLs using the conversion ratios developed by NOAA OST and the Gulf states, and recommended by

the Council's Scientific and Statistical Committee (SSC). The ratios and corresponding limits (based on 2020 ACLs in MRIP-CHTS currency) are defined in Table 2.1.

Table 2.1. Gulf state-specific private angling component ACLs in lbs ww for the 2020 fishing season, and in state survey-specific data currency as adjusted by each calibration ratio.

State	Current State ACL (in MRIP-CHTS)	Conversion Ratio	Converted ACL (in State Currency)
Alabama	1,122,662	0.4875	547,298
Florida	1,913,451	1.0602	2,028,641
Louisiana	816,233	1.06	865,207
Mississippi	151,550	0.3840	58,195
Texas	265,105	1.00	265,105
Total	**4,269,001**	**—**	**3,764,446**

Alternative 2 would implement a ratio-based conversion of MRIP-CHTS catch limits to state ACLs that would reduce the likelihood of the total private angling component ACL being exceeded based on discrepancies in the currencies of the various data collection programs. The methods and techniques used to generate estimates vary in each state (as do state estimates versus MRIP-CHTS), and thus estimates of catch also vary. **Alternative 2** would affect each state differently depending on the state conversion ratio. Florida and Louisiana would benefit from the application of their calibration ratios in **Alternative 2** (approximately 6% increases in the ACLs for those states); Texas would remain unaffected (no change to ACL as compared to **Alternative 1**); and, the ACLs for Alabama and Mississippi would be reduced (decreases of approximately 52% and 62%, respectively). **Alternative 2** would likely result in shorter season durations and reductions in fishing effort in Alabama and Mississippi, and longer season durations in Florida and Louisiana.

Alternative 3 would establish and set a "State Management ACL" that is 23% below the total private angling component ACL[3], and would apply the allocation percentages from Amendment 50A to set the state-specific ACLs (see Table 2.1). The resultant catch limits under **Alternative 3** for each state are defined in Table 2.2. The 23% buffer was determined iteratively to be the smallest buffer where the predicted state landings in Table 2.2 did not exceed the total recreational private angling component ACL. Percent buffers below 23% were insufficient to reduce the sum of predicted state landings below the total recreational private angling component ACL.

[3] In this instance, "ACL" is being used in place of "quota"; however, the regulations specify a total private angling component quota. This value serves the same purpose that might be served by an ACL, and so the former term is used for interpretive purposes.

Table 2.2. Gulf state-specific private angling component ACLs and ACTs as adjusted by the application of the 23% buffer in lbs ww for the 2020 fishing season. The predicted landings (using MRIP-CHTS data currency) by state are also provided.

	Total Private Angling Component ACL	State Management ACL	Total Predicted * Landings
Federal Catch Limits	4,269,001	3,287,131	4,263,872
State	**Current State ACL**	**State ACL**	**Predicted Landings* (in MRIP-CHTS)**
Alabama	1,122,662	864,450	1,773,231
Florida	1,913,451	1,473,358	1,389,698
Louisiana	816,233	628,499	592,924
Mississippi	151,550	116,693	303,888
Texas	265,105	204,131	204,131

*Based on current calibration ratios; assumes each state catches its exact ACL. MRIP-CHTS currency is predicted for Alabama, Florida, Louisiana, and Mississippi predictions since that was the data used in SEDAR 52. State landings currency are used for Texas.

Under **Alternative 3**, a "State Management ACL" of 3,287,131 lbs ww would be established for the Gulf red snapper private angling component. Each state would receive the proportion of the ACL as specified in Amendment 50A. In contrast to **Alternative 2**, **Alternative 3** would not require ratio adjustments but would continue to allow each Gulf state to monitor landings in their own state currency. Similar to **Alternative 2**, **Alternative 3** is expected to reduce the likelihood of exceeding the total private angling component ACL relative to **Alternative 1** as long as the states constrain landings to their respective revised state ACLs.

In comparison to **Alternative 2**, **Alternative 3** would result in higher ACLs for Alabama and Mississippi, and lower ACLs for Florida, Louisiana, and Texas. Because the state programs estimate recreational landings differently both from each other and from NMFS, there is disparity in how this alternative would affect the states. When using MRIP-CHTS as a common currency for comparison, both Mississippi (101% increase) and Alabama (58% increase) would effectively receive a large increase in their respective ACLs, while Florida (27% decrease), Louisiana (27% decrease), and Texas (23% decrease) would have their respective ACLs reduced.

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