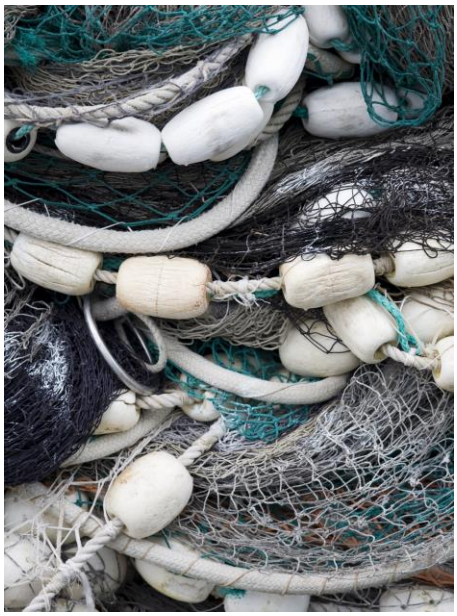
Modifications to Commercial King Mackerel Gillnet Trip Limits, Accountability Measures, and Electronic Reporting Requirements, and Elimination of Latent Gillnet Permits in the Gulf of Mexico



Final
Framework Amendment 3
to the Fishery Management Plan for
Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic

Including Environmental Assessment, Regulatory Impact Review, and Regulatory Flexibility Act Analysis

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Framework Amendment 3 to Modify Commercial King Mackerel Gillnet Trip Limits, Accountability Measures, and Electronic Reporting Requirements; and Elimination of Latent Gillnet Permits in the Gulf of Mexico

Including Environmental Assessment, Regulatory Impact Review, and Regulatory Flexibility Act Analysis

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ABBREVIATIONS USED IN THIS DOCUMENT

ABC	acceptable biological catch
ACL	annual catch limit
ACT	annual catch target
AM	accountability measure
CFR	Code of Federal Regulations
CMP	coastal migratory pelagics
Council	Gulf of Mexico Fishery Management Council
EA	environmental assessment
EEZ	exclusive economic zone
EFH	essential fish habitat
EIS	environmental impact statement
EJ	environmental justice
ESA	Endangered Species Act
FMP	fishery management plan
GMFMC	Gulf of Mexico Fishery Management Council
GSMFC	Gulf States Marine Fisheries Commission
Gulf	Gulf of Mexico
HAPC	habitat area of particular concern
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MMPA	Marine Mammal Protection Act
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Agency
NS	National Standard
RA	Regional Administrator
RFA	Regulatory Flexibility Act
RFAA	Regulatory Flexibility Act analysis
RIR	Regulatory Impact Review
SAFMC	South Atlantic Fishery Management Council
Secretary	Secretary of Commerce
SEDAR	Southeast Data, Assessment, and Review
SEFSC	NMFS Southeast Fishery Science Center
SERO	NMFS Southeast Regional Office
USCG	United States Coast Guard

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CHAPTER 1. INTRODUCTION

Gulf of Mexico Fishery Management Council

- Responsible for conservation and management of fish stocks
- Consists of 17 voting members, 11 of whom are appointed by the Secretary of Commerce, the National Marine Fisheries Service Regional Administrator, and 1 representative from each of the 5 Gulf states marine resource agencies
- Responsible for developing fishery management plans and amendments, and recommends actions to National Marine Fisheries Service for implementation

National Marine Fisheries Service

- Responsible for conservation and management of fish stocks
- Approves, disapproves, or partially approves Council recommendations
- Implements regulations

1.1 Background

Fishing for species managed in the Fishery Management Plan (FMP) for Coastal Migratory Pelagic (CMP) Resources in the Gulf of Mexico (Gulf) and Atlantic Region are governed by fishery specific regulations (50 CFR 622.369 et seq.).

Run-around gillnets are allowed for harvesting king mackerel in the Gulf only in the Florida West Coast Southern Subzone, which includes waters off Collier County, Florida, year-round, and off Monroe County, Florida, November 1- March 30. Currently, there are 21 vessels with valid or renewable gillnet permits; four of these vessels have had no landings since 2001. To use gillnets for king mackerel, vessels must also have the standard commercial king mackerel permit, although a vessel with a gillnet permit is prohibited from fishing for mackerel by hook and line.

Changes to the Trip Limit

Representatives from the gillnet component of the CMP fishery have requested raising the trip limit. The current trip limit is 25,000 lbs landed weight per vessel per day. Further conversations with several permit holders suggested that the desire to change the trip limit may not be universal among participants. However, at following Fishery Management Council meetings, the desire to see the trip limit increased was shared by all permit holders.

In most years, the fishing season has lasted for two weeks or less (Table 1.1.1). Assuming each vessel would harvest its capacity, the season could be shorter with a higher trip limit. Additionally, gillnet permits can be transferred to another vessel owned by the same entity or to

an immediate family member. Therefore, if the trip limit is removed or increased, permit holders could transfer their permit to a larger vessel, increasing the total landing capacity of the fleet.

The weight of landings caught in a gillnet "strike" (*strike: a deployment of run-around gillnet fishing gear*) is more difficult to judge than other types of gear because of the nature of the gear. For these reasons, vessel operators sometimes do not realize they have fish in excess of the trip limit until they land their catch.

If a strike exceeds the trip limit, only two options exist to keep from incurring a violation and a fine. First, fishermen can release excess fish. Because of the nature of gillnet fishing, discard mortality is high and most released fish do not survive. Second, fishermen can cut the net and leave the section with excess fish in the water and another vessel can then retrieve the partial net, if that vessel has not yet met its trip limit. This second choice is better for the resource as it eliminates waste, but obviously damages gear, which takes time and money to repair. As discarding a net at sea is prohibited, fishermen cannot employ this second option unless another vessel is nearby to pick up the surrendered portion of the net. Providing alternative(s) to the aforementioned options helps address current gaps in management efficiency.

Changes to Accountability Measures (AMs)

The gillnet component of the fishery has an annual catch limit (ACL) separate from the hook-and-line component that is used as the Florida West Coast Southern Subzone gillnet quota. If the quota is reached or projected to be reached, the National Marine Fisheries Service (NMFS) publishes a notice prohibiting further harvest by the gillnet component of the fishery until the following year. Industry representatives have worked closely with NMFS over the last several years to track the landings on a daily basis and voluntarily cease fishing when the quota is expected to be met. However, in the past 10 years, landings have exceeded the ACL five times (**Table 1.1.1**). Under the National Standard 1 (NS1) guidelines, if a stock catch exceeds the ACL more than once in a four-year period, the system of ACLs and accountability measures (AMs) should be re-evaluated and modified, if necessary, to improve performance and effectiveness.

Table 1.1.1. Days and landings (pounds) of king mackerel by gillnet in the Florida West Coast Southern Subzone. Total landings and quota are in pounds.

Fishing Year	# Days Open	# Days Fished	# Vessels	Total Landings	Quota	% of Quota	% Over/Under (-) Quota
2006/07	10	7	14	513,935	520,312	98.77	-1.23
2007/08	15	6	16	497,452	520,312	95.61	-4.39
2008/09	10	3	16	614,843	520,312	118.17	18.17
2009/10	5	5	17	881,466	520,312	169.41	69.41
2010/11	15	3	15	664,053	520,312	127.63	27.63
2011/12	4	3	14	545,995	520,312	104.94	4.94
2012/13	No closure	6	15	457,113	607,614	75.23	-24.77
2013/14	8	4	15	515,954	551,448	93.56	-6.44
2014/15	32	5		532,614	551,448	96.58	-3.42

Note: The fishing season begins the day after the Dr. Martin Luther King, Jr. holiday.
Source: SEFSC ALS database.

Changes to Electronic Reporting
The Generic Dealer Reporting Amendment (GMFMC and SAFMC 2014) became effective August 7, 2014. The rule created a single dealer permit for the southeast region and established weekly electronic reporting requirements. An exception was made for dealers buying king mackerel landed by the gillnet component in the Florida West Coast Southern Subzone, who are required to submit reporting forms daily.

The 2014/2015 fishing season was the first time daily electronic reporting was required for king mackerel gillnet dealers. Dealers were compliant; however, because of timing of landing and quality control measures, landings data did not reach managers as quickly as was necessary. Although dealers began voluntarily reporting directly to managers, a more formal and timely method is needed.

Changes to Permit Requirements
Industry representatives have suggested removing latent gillnet permits. The Gulf and South Atlantic Fishery Management Councils considered removing latent king mackerel permits in Amendment 20A (GMFMC and SAFMC 2013) and decided they did not want to revoke any permits; however, the Gulf Fishery Management Council is reconsidering this decision for gillnet permits. Fishermen have indicated concern about the possibility of other fishermen with latent permits re-entering the fishery, thereby potentially reducing the average portion of the current Florida West Coast Southern Subzone gillnet ACL available per vessel.

1.2 Purpose and Need

The purpose of this proposed action is to modify trip limits, accountability measures, electronic reporting requirements, and gillnet permits for commercial king mackerel landed by gillnet in the Gulf of Mexico. The need for this proposed action is to increase efficiency, stability, and accountability, and reduce the potential for regulatory discards in the commercial king mackerel gillnet component of the fishery.

1.3 History of Management

The CMP FMP, with Environmental Impact Statement (EIS), was approved in 1982 and implemented by regulations effective in February 1983 (GMFMC and SAFMC 1982). The management unit included king mackerel, Spanish mackerel, and cobia. The FMP treated king and Spanish mackerel as unit stocks in the Atlantic and Gulf. The FMP established allocations for the recreational (68%) and commercial (32%) sectors harvesting these stocks, and the commercial allocations were divided between net and hook-and-line fishermen. The following is a list of management changes relevant to this amendment. A full history of CMP management can be found in Amendment 18 (GMFMC and SAFMC 2011), and is incorporated here by reference.

Amendment 1, with EIS, implemented in September 1985, recognized separate Atlantic and Gulf migratory groups of king mackerel. The Gulf commercial allocation for king mackerel was

divided into Eastern and Western Zones for the purpose of regional allocation, with 69% of the allocation provided to the Eastern Zone and 31% to the Western Zone.

Amendment 2, with environmental assessment (EA), implemented in July 1987, established allocations of total allowable catch for the commercial and recreational sectors, and set commercial quotas and recreational bag limits.

Amendment 5, with EA, implemented in August 1990, specified that Gulf migratory group king mackerel may be taken only by hook-and-line and run-around gillnets.

Amendment 7, with EA, implemented in September 1994, equally divided the Gulf commercial allocation in the Eastern Zone at the Dade-Monroe County line in Florida. The sub-allocation for the area from Monroe County through Western Florida is equally divided between commercial hook-and-line and net gear users, and gillnet permits were established.

1994 Regulatory Amendment, with EA, implemented in November 1994, proposed a 25,000-lb trip limit for the gillnet component of the fishery until 90% of their allocation was taken, then 15,000 lbs per trip. NMFS rejected the step down and commercial gillnet boats were limited to 25,000 lbs per trip.

Amendment 8, with EA, implemented in March 1998, clarified ambiguity about allowable gear specifications for Gulf migratory group king mackerel by allowing only hook-and-line and run-around gillnets.

Amendment 9, with EA, implemented in April 2000, established a moratorium on the issuance of commercial king mackerel gillnet permits.

Amendment 18, with EA, implemented in January 2012, established ACLs and AMs for Gulf migratory group of king mackerel, including separate ACLs for the commercial hook and line and gillnet components.

Amendment 20B, with EA, implemented March 1, 2015, established transit provisions through areas closed to king mackerel fishing for vessels possessing king mackerel that were legally harvested in federal waters open to king mackerel fishing.

CHAPTER 2. MANAGEMENT ALTERNATIVES

2.1 Action 1: Modify the Commercial King Mackerel Gillnet Trip Limit

Alternative 1: No Action – Do not modify the commercial king mackerel gillnet trip limit of 25,000 lbs per day.

Alternative 2: Increase the trip limit to 35,000 lbs.

Preferred Alternative 3: Increase the trip limit to 45,000 lbs.

Alternative 4: Remove the trip limit for the commercial king mackerel gillnet component of the fishery.

Discussion

The current trip limit for king mackerel gillnet vessels is 25,000 lbs. Fishermen have voiced concern that estimating the pounds of fish in a gillnet is difficult because of the large volume, increasing the probability of exceeding the current trip limit and incurring a fine. Fishermen argue that increasing the trip limit will reduce their risk of landing more than the trip limit in a single gillnet set. Presently, if fishermen think they have more fish in their gillnet than the trip limit allows, they must cut their net and float it to another vessel. King mackerel landed in gillnets experience very high discard mortality, making releasing fish in excess of the trip limit wasteful and impractical. Additionally, discarding the net (or a piece thereof) at sea, regardless of whether fish are present in the net, is prohibited.

Removing or increasing the trip limit may make it easier to exceed the annual catch limit (ACL). In 2014, 13 vessels reported landings on a single day, accounting for 45% of the ACL, although not all vessels landed the trip limit. If all vessels caught the current 25,000-lb trip limit and fished every day, the ACL would be met in less than two days. With an increased trip limit, vessels could leave port on the first day and the ACL could be reached before all vessels returned. However, in reality, few vessels catch the trip limit and/or fish every day.

Any increase in the current trip limit would generally be expected to result in the Florida West Coast Subzone gillnet quota being landed more quickly than the status quo. The days fished for the king mackerel gillnet component of the fishery for 2007-2015 are shown in Table 1.1.1. Determining changes in season length which could result from an increase in the trip limit is difficult for several reasons. The two largest factors influencing whether the gillnet fleet goes fishing are the market price for king mackerel and weather. Fishermen will often abstain from fishing until the price for king mackerel reaches a desirable level, which is often influenced by whether the hook-and-line component is still open. Weather plays an important factor for two reasons: the gillnet vessels usually must travel far offshore to find the fish, and spotter planes are necessary to coordinate gillnet strikes. Foul weather can create hazardous conditions for both

vessel captains and airplane pilots. Other factors that may influence the number of days fished include gear maintenance and repair, and participation in other fisheries occurring during the gillnet season.

Alternative 1 would retain the current trip limit of 25,000 lbs per vessel, per day. Fishermen have voiced that the current trip limit increases their probability of being fined, as they claim it is very common to land more than 25,000 lbs of king mackerel in a single gillnet strike. Because the size of a school of king mackerel can be difficult to estimate precisely, fishermen claim that it is very difficult to know how many fish are in the net until after the net is closed and the retrieval process begins.

Alternative 2 would increase the trip limit to 35,000 lbs, **Preferred Alternative 3** would increase the trip limit to 45,000 lbs, and **Alternative 4** would eliminate the trip limit for commercial king mackerel gillnet fishermen. Increases in the trip limit are not expected to have measurable negative biological impacts, as long as the Florida West Coast Southern Subzone gillnet ACL for king mackerel is not exceeded. Although the ACL was exceeded regularly in the past, landings have been below the ACL in the last three years due to cooperation between fishermen, dealers, and NMFS.

Fishermen claim that more than 90% of gillnet strikes yield less than 45,000 lbs of fish; however, it is possible to land more than 45,000 lbs with the current allowable gear. Removing the current trip limit would eliminate the fines for exceeding the trip limit- a main grievance of the industry. However, with no trip limit in place, the National Marine Fisheries Service (NMFS) will have less effective mechanisms to project the pace of landings to close the gillnet component of the fishery before its ACL is exceeded. Because it can take up to 48 hours for verified landings and dealer reports to come to NMFS from the Southeast Fisheries Science Center (SEFSC), the absence of a trip limit will result in less predictability in the pace of landings, making the timely closure of the gillnet component more difficult (see Action 3 for changes in electronic reporting).

2.2 Action 2: Modify Accountability Measures for the Gillnet Component of the Commercial King Mackerel Fishery

Alternative 1: No Action – Do not modify accountability measures (AMs) for the gillnet component of the commercial king mackerel fishery. Currently, the gillnet component of the Florida West Coast Subzone commercial king mackerel fishery is closed when the quota is met or projected to be met.

Alternative 2: Establish an annual catch target (ACT) for the gillnet component of the commercial king mackerel fishery that is below the ACL and will be the quota. The gillnet component of the commercial king mackerel fishery will be closed when the ACT is met or projected to be met.

Option a: ACT is equal to 95% of the ACL
Option b: ACT is equal to 90% of the ACL
Option c: ACT is equal to 80% of the ACL
Option d: ACT is based on the Gulf of Mexico Fishery Management Council's ACL/ACT Control Rule
Option e: If the king mackerel gillnet component of the commercial fishery does not land its quota (ACT) in a given year, then the amount of any landings under the quota will be added to the following year's quota, up to but not exceeding the ACL. This quota "carry-over" will be reduced to account for the natural mortality rate according to the best scientific information available.

Preferred Alternative 3: If the Florida West Coast Southern Subzone gillnet ACL is exceeded in a year, NMFS would reduce the Florida West Coast Southern Subzone gillnet ACL in the following year by the amount of the overage. The ACT (if established) will also be adjusted to reflect the previously established percent buffer.

Preferred Option a: Payback regardless of stock status
Option b: Payback only if the Gulf migratory group king mackerel stock is overfished

Note: *Currently, the ACL = acceptable biological catch (ABC) for Gulf migratory group king mackerel. Establishing an ACT in Alternative 2 provides a buffer between the quota and the ACL/ABC, making Alternative 2, Option e a possibility. Alternative 2, Option e is not feasible without selecting one of Options a-d.*

Discussion

The National Standard (NS) 1 guidelines describe two types of AMs: in-season AMs that prevent overages during the current fishing season and post-season AMs to mitigate overages that may occur. The current in-season closure may not be sufficient to constrain catch within the ACL for this component of the fishery, and the accelerated pace of landings make implementing in-season AMs difficult. An AM that could be used for the Florida West Coast Southern Subzone gillnet sector is an ACT. The in-season quota closure would be based on the ACT. The buffer between the ACL and the ACT would need to be set at a percentage that takes into account expected quota overages to reduce the probability that the ACL is exceeded. The

average overage for the past 10 years is 9% over the gillnet ACL, with large variability (Table 1.1.1). The use of an ACT could also allow for rollover of an underage of the quota to the following year. The quota cannot be set higher than the acceptable biological catch (ABC) and currently the ACL is equal to the ABC. Therefore, an underage in one year cannot currently be carried over to the next year because that next year's quota would be the ACL plus the underage and exceed the ABC. If an ACT is set below the ACL, then an underage in one year could be carried over to the next year if the ACT plus the underage does not exceed the ABC.

A post-season AM, such as a payback, may also be appropriate. In this case, in the year following an overage, the Florida West Coast Southern Subzone gillnet quota could be reduced by the amount the quota was exceeded by the gillnet fleet. A post-season payback provision could also only apply if the ACL is exceeded by a certain percentage.

Fishermen in the king mackerel gillnet component of the commercial CMP fishery have requested more stringent AMs to go along with any potential increase in the gillnet trip limit. Currently, if the quota for a zone, subzone, or gear is reached or projected to be reached within a fishing year, the NMFS closes that zone, subzone, or gear for the remainder of the fishing year. **Alternative 1** would maintain this current regulatory structure for AMs for the gillnet component of the commercial king mackerel fishery.

Alternative 2 would establish an ACT for the king mackerel gillnet component of the fishery which would act as the quota and provides a buffer less than the ACL. The king mackerel gillnet component of the fishery would be closed when the ACT is met or projected to be met. Presently, there is no ACT in place for any gear or zone in the Gulf commercial king mackerel component of the fishery. Establishing an ACT in effect establishes a buffer under the ACL, reducing the likelihood of the ACL being exceeded. An ACT requires fishermen to potentially forgo catch (in the amount of the buffer) each year.

The ACT could be set equal to 95% of the ACL (**Option a,**), 90% of the ACL (**Option b**), or 80% of the ACL (**Option c**). **Option d** would establish an ACT for the gillnet component based on the Gulf of Mexico Fishery Management Council's (Council's) ACL/ACT Control Rule. Based on the yield projections from the most recent stock assessment for Gulf migratory group king mackerel, and landings in the Gulf between 2009-2013, the Council's ACL/ACT Control Rule recommends a 5% buffer between the ACL and the ACT for the gillnet component of the commercial king mackerel fishery. The 5% buffer resulting from the application of the Council's ACL/ACT Control Rule is the same as **Alternative 2, Option a** with one key exception. Any ACT established using the Council's ACL/ACT Control Rule accounts for uncertainty, which may change with time. A subsequent stock assessment may recommend projected fishery yields which account for more uncertainty than before, which could impact subsequent applications of the Council's ACL/ACT Control Rule (**Alternative 2, Option d**). The defined reduction in **Alternative 2, Option a** would be fixed, and would not vary based on changes in uncertainty.

Table 2.2.1 shows the effect of implementing an ACT for the gillnet component of the commercial king mackerel fishery using the 2014/2015 quota to demonstrate the changes possible in **Alternative 2**.

Table 2.2.1. Comparison of resultant ACTs (pounds) from **Alternative 2**.

Method	2014/15 ACL	ACT	% Reduction from ACL	Difference in Pounds	Difference in # of Gillnet sets[1]
Alt 2, Opt a	551,448	523,876	5%	27,572	1+
Alt 2, Opt b	551,448	496,303	10%	55,145	2+
Alt 2, Opt c	551,448	441,158	20%	110,290	4+
Alt 2, Opt d	551,448	523,876	5%[2]	27,572	1+

[1]Determined by dividing the "Difference in Pounds" column by the current trip limit of 25,000 lbs.
[2]May change with changes in uncertainty expressed in subsequent stock assessments.

Alternative 2, Option e stipulates that if the king mackerel gillnet component does not land its quota in a given year, then the amount of any landings under the quota will be added to the following year's quota, up to but not exceeding the ACL. This quota "carry-over" would work in tandem with, and is not possible without, also selecting one of **Options a-d**. **Option e** would allow fishermen the opportunity to catch some of the fish not caught during the previous year in the following year. Any carry-over allowed in **Option e** would be reduced by the natural mortality rate according to the best scientific information for Gulf migratory group king mackerel. According to SEDAR 38 (2014), the current value for natural mortality averaged across all ages is 0.17. For example, a carry-over of 10,000 lbs would be reduced by 17% to account for natural mortality, with the actual amount of quota carried over to the following year being 8,300 lbs.

Preferred Alternative 3 would reduce the ACL in the year following an overage of the ACL by the amount of the overage in the previous year. If established, the ACT would also be reduced by the amount needed to maintain the percent buffer previously established between the ACL and the ACT. Without this adjustment to the ACT, the buffer between the ACL and ACT would be reduced, which would increase the likelihood of exceeding the reduced ACL.

The ACL and ACT reduction would only remain in effect for one year, provided the newly adjusted ACL is not exceeded in the following year. If the ACL is not exceeded for a second time, then in subsequent years the ACL and ACT would return to the original levels. However, if the adjusted ACL is exceeded in the following year, then the ACL and ACT will be further adjusted in accordance with the alternative. Under the NS 1 guidelines, if catch exceeds the ACL for a given stock or stock complex more than once in four years, the system of ACLs and AMs should be re-evaluated, and modified if necessary, to improve its performance and effectiveness.

2.3 Action 3: Modify Electronic Reporting Requirements for Dealers Receiving King Mackerel Harvested by Gillnet in the Florida West Coast Southern Subzone

Alternative 1: No Action – Do not modify electronic reporting requirements for commercial king mackerel gillnet dealers. Dealers reporting purchases of king mackerel landed by the gillnet sector for the Florida West Coast Southern Subzone must submit forms daily to the electronic reporting system supported by the SEFSC by 6:00 a.m. local time. Until the commercial quota for the run-around gillnet component for Gulf migratory group king mackerel is reached, if no king mackerel were received, an electronic report so stating must be submitted for that day.

Alternative 2: Remove the requirement for *daily* electronic reporting by commercial king mackerel gillnet dealers. Dealers reporting purchases of king mackerel landed by the gillnet sector for the Florida West Coast Southern Subzone must submit forms *weekly* for trips landing between Sunday and Saturday to the electronic reporting system supported by the SEFSC by 11:59 p.m. local time on the following Tuesday. If no fish were received during a week, an electronic report so stating must be submitted for that reporting week.

Preferred Alternative 3: Remove the requirement for *daily electronic* reporting by commercial king mackerel gillnet dealers and replace that requirement with an alternative form of daily reporting. During the open fishing season, dealers reporting purchases of king mackerel landed by the gillnet sector for the Florida West Coast Southern Subzone must report *daily via the port agents, telephone, internet, or other similar means determined by NMFS. Prior to the beginning of each commercial king mackerel gillnet season, NMFS will provided written notice to king mackerel gillnet dealers if the reporting method and deadline change from the previous year, and will also post this information on the Southeast Regional Office Website.* In addition, dealers reporting purchases of king mackerel landed by the gillnet sector for the Florida West Coast Southern Subzone must submit forms *weekly* from trips landing between Sunday and Saturday to the electronic reporting system supported by the SEFSC by 11:59 p.m. local time on the following Tuesday. If no fish were received during a reporting week, an electronic report so stating must be submitted for that reporting week.

Discussion

Gillnet vessels have a large trip limit (see Action 1), which could allow the current ACL (quota) to be harvested within two days if all vessels with permits fished and caught the trip limit. Since the 2006/2007 fishing season, the number of fishing days has ranged 3-8 days (Table 1.1.1). From the 2011/2012 fishing season through the 2013/2014 fishing season, dealers reported king mackerel gillnet landings to NMFS port agents each day after vessels offloaded in the early morning. The port agents would share the compiled landings data with managers responsible for monitoring quotas within 24 hours of the time that the fish were harvested. This timely reporting allowed the king mackerel gillnet component to be closed quickly as the quota was neared. Recently, fishermen holding gillnet permits have agreed to cooperatively monitor landings and voluntarily cease fishing when landings near the quota.

The Dealer Reporting Amendment (GMFMC and SAFMC 2014) became effective August 7, 2014. The rule implementing this amendment created a single dealer permit for all species managed by the Gulf and South Atlantic Councils and established weekly electronic reporting requirements for dealers receiving those species. An exception was made for dealers reporting purchases of king mackerel landed by the gillnet component for the Florida West Coast Southern Subzone, who are required to submit electronic forms daily during the gillnet fishing season. The 2014/2015 fishing season was the first time daily electronic reporting was required for king mackerel gillnet dealers. Because of vessels landing after midnight and long offloading times, some gillnet landings were not reported before 6:00 a.m. Any landings submitted to the electronic monitoring system after 6:00 a.m. would not be processed until the following day at 6:00 a.m. Further, the electronic monitoring system involves processing and quality control time before the data could be passed to managers. The result of these situations was that some landings did not reach managers until nearly two days after they were harvested.

To compensate for the slower landings reports, during the 2014/2015 fishing season, dealers buying king mackerel caught by gillnets voluntarily cooperated with NMFS by providing landings to managers directly, as quickly as possible after offloading. Dealers also continued to report through the electronic monitoring system. This concurrent monitoring was effective in keeping managers informed as to when landings were nearing the quota and implementing the closure in a timely manner, but more burdensome on the dealers.

Alternative 1 would maintain the current requirement for daily reporting of gillnet-caught king mackerel through the electronic monitoring system. Although this system supplies landings data to managers more quickly than the weekly reporting required for other species, it is still slower than other methods of reporting that could be used. In addition, NMFS has no legal authority to require dealers to report directly to managers, as was done voluntarily in the 2014/2015 fishing season. In addition, the Generic Dealer Amendment removed the authority for port agents to be able to request landings.

Alternative 2 would remove the requirement for daily reporting and require the same weekly reporting as for other species in the Gulf and South Atlantic. Although this would ease the reporting burden for those dealers who receive king mackerel caught by gillnets, it would make effective monitoring of the Florida West Coast Southern Subzone gillnet quota difficult. Currently the fishermen cooperate and voluntarily stop fishing when they reach the quota; however, NMFS cannot rely solely on this voluntary reporting and fishing behavior to constrain harvest to the ACL.

Preferred Alternative 3 would remove the daily reporting requirement to the electronic monitoring system, but continue to require daily reporting by some other means as developed by NMFS. This could involve reverting to the port agent reports or some more direct method of reporting to managers. NMFS would work with dealers to establish a system that minimizes the burden to the dealers as well as the time for landings to reach managers and notify those dealers in writing if the method or deadlines are changed. Dealers would still be required to report king mackerel gillnet landings through the electronic monitoring system weekly, when they report other species. The weekly reporting would ensure the king mackerel reports are included in the

Commercial Landings Monitoring database maintained by the SEFSC. In the 2014/2015 fishing season, all dealers who reported king mackerel gillnet purchases also reported purchase of other species; therefore, **Alternative 3** would not be anticipated to create an additional reporting burden.

2.4 Action 4: Elimination of Inactive Commercial King Mackerel Gillnet Permits

Alternative 1: No Action – Maintain all current requirements for renewing commercial king mackerel gillnet permits.

Alternative 2: Allow commercial king mackerel gillnet permits to be renewed only if *average landings* during 2006-2015 were greater than one of the options listed below. Gillnet permits that do not qualify will be non-renewable and non-transferable.

Option a: 1 pound
Option b: 10,000 lbs
Option c: 25,000 lbs

Preferred Alternative 3: Allow commercial king mackerel gillnet permits to be renewed only if *landings for a single year* during 2006-2015 were greater than one of the options listed below. Gillnet permits that do not qualify will be non-renewable and non-transferable.

Preferred Option a: 1 pound
Option b: 10,000 lbs
Option c: 25,000 lbs

Alternative 4: Allow commercial king mackerel gillnet permits to be renewed only if *average landings* during 2011-2015 were greater than one of the options listed below. Gillnet permits that do not qualify will be non-renewable and non-transferable.

Option a: 1 pound
Option b: 10,000 lbs
Option c: 25,000 lbs

Alternative 5: Allow commercial king mackerel gillnet permits to be renewed only if *landings for a single year* during 2011-2015 were greater than one of the options listed below. Gillnet permits that do not qualify will be non-renewable and non-transferable.

Option a: 1 pound
Option b: 10,000 lbs
Option c: 25,000 lbs

Discussion

Both a commercial king mackerel permit and a king mackerel gillnet permit are required to use run-around gillnets in the Florida West Coast Southern Subzone. Gillnet permits can only be transferred to another vessel owned by the same entity or to an immediate family member. Consequently, the number of gillnet permits has decreased over time and now stands at 21 valid or renewable permits. Some of these vessels holding gillnet permits have not had landings in recent years.

Alternative 1 would allow permit holders who have not been fishing for king mackerel with gillnets to begin fishing with gillnets again. It is unclear if any of those fishermen intend to do

so, but their practice of renewing the permit each year indicates they may anticipate king mackerel fishing at some point in the future. Some active gillnet fishermen are concerned that permit holders who have not been fishing regularly or have been fishing at low levels may begin participating more fully. More vessels fishing under the same quota could mean lower catches for each vessel. Elimination of latent king mackerel gillnet permits would protect the interests of the current active participants.

Alternatives 2 and **4** would base the status of a permit on the average landings meeting the landings threshold (**Options a-c**) over a set time period. Average landings take into account the sustained participation of permit holders through the years. Table 2.4.1 has estimates of the number of permits that would not meet various potential landings thresholds. In general, the higher the average pounds necessary to qualify, the more gillnet permits that would be designated as inactive and eliminated.

Alternatives 3 and **5** would base the status of a permit on landings meeting the threshold (**Options a-c**) in only one of the years in the time period. Due to the short nature of the gillnet season, a vessel may miss the short window in which to participate for a variety of reasons, including family, illness, mechanical trouble, financial trouble, and others. These extraneous factors, and not an unwillingness to participate, could cause some gillnet permits to not meet the landings threshold criteria for determining if a permit is valid to be renewed (**Options a-c**). Table 2.4.1 has estimates of the number of permits that would not meet the potential landings thresholds for any one year in the time period. The Council preferred **Alternative 3**, **Option a**, which will allow commercial king mackerel gillnet permits to be renewed only if landings for a single year during 2006-2015 were greater than one pound.

Table 2.4.1. Estimated number of gillnet permits not qualifying under various potential landings thresholds for **Alternatives 2-5**. Gillnet permits are those valid or renewable as of February 20, 2015. The actual number and percentage of gillnet permits that would be affected would depend on the number of valid and renewable gillnet permits on the effective date of the rule.

		Number of Permits Eliminated			
Option	**Landings Threshold (lbs)**	**Alternative 2** average landings 2006-2015	**Alternative 3** landings in any one year 2006-2015	**Alternative 4** average landings 2011-2015	**Alternative 5** landings in any one year 2011-2015
a	1	4	4	6	6
b	10,000	7	4	7	6
c	25,000	10	6	9	7

Source: SEFSC logbooks and Southeast Regional Office (SERO) Permits database.

Appeals

With **Alternatives 2-5**, an appeals process would be established to provide a procedure for resolving disputes regarding eligibility to retain king mackerel gillnet endorsements. The only item subject to appeal is the accuracy of landings data used to determine whether the permit is

eligible for renewal. Appeals based on hardship factors will not be considered. Landings data for appeals would be based on logbooks submitted to and received by the Southeast Fisheries Science Center for the years chosen in the preferred alternative. If logbooks are not available, state landings records may be used.

The Southeast Regional Administrator (RA) will mail each king mackerel gillnet permit holder a letter advising whether the permit is eligible for renewal. A permit holder who is advised that the permit is not renewable based on the RA's determination of eligibility and who disagrees with that determination may appeal that determination. Appeals will be processed by the NOAA Fisheries National Appeals Office and will be governed by the regulations and policy of the National Appeals Office at 15 CFR Part 906. Appeals must be submitted to the National Appeals Office no later than 90 days after the date the initial determination in issued.

CHAPTER 3. AFFECTED ENVIRONMENT

3.1 Description of the Fishery

A detailed description of the coastal migratory pelagic (CMP) fishery was included in Amendment 18 to the Fishery Management Plan for Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region (FMP) (GMFMC and SAFMC 2011) and can be found at http://www.gulfcouncil.org/docs/amendments/Final%20CMP%20Amendment%2018%20092311%20w-o%20appendices.pdf. The gillnet component of the commercial sector is further described below.

King Mackerel

A federal king mackerel commercial vessel permit is required to retain king mackerel in excess of the bag limit in federal waters of the Gulf of Mexico (Gulf) and Atlantic. These permits are limited access. In addition, a limited-access gillnet permit is required to use gillnets in the Florida West Coast Southern Subzone. As of April 21, 2015, there were 1,342 valid or renewable federal commercial king mackerel permits, and 21 valid or renewable gillnet permits.

For the commercial sector, the area occupied by Gulf migratory group king mackerel is divided into four areas within the Gulf: the Western Zone, Florida West Coast Northern Subzone, Florida West Coast Southern Subzone, and the Florida East Coast Subzone. The Western Zone extends from the southern border of Texas to the Alabama/Florida state line, and the fishing year for this zone is July 1 – June 30. The Florida West Coast Northern Subzone includes waters from the Alabama/Florida state line to the Lee/Collier county line, with a fishing year from October 1 – September 30. The Florida West Coast Southern Subzone includes waters from the Lee/Collier county line to the Collier/Monroe county line from April 1 – October 31, and from the Lee/Collier county line to the Monroe/Dade County line from November 1 – March 31 (revisions to the Florida West Coast Southern Subzone boundaries are currently being considered in Amendment 26). The fishing year for the Florida West Coast Southern Subzone is from July 1 – June 30; however, the gillnet component of the commercial king mackerel fishing sector is closed from July 1 until the day after the Martin Luther King, Jr. holiday. Gillnet fishing is allowed during the first weekend thereafter, but not on subsequent weekends. The Florida East Coast Subzone only exists November through March each year, and is managed by the South Atlantic Fishery Management Council.

The gillnet component of the commercial king mackerel fishing sector has a long history in south Florida, particularly the Florida Keys. The primary fishing area has historically been in waters northwest of Key West, Florida and south of Lee County, Florida. However, the use of this gear has been restricted under state and federal regulations, particularly Amendment 9 (GMFMC 2000). Gillnets used for king mackerel have nylon mesh with a center band of monofilament mesh commonly 4-3/4 inches stretched, which is also the minimum size allowed. Nets can fish effectively in waters 55 to 60 feet in depth. Gillnet vessels use power rollers for net retrieval, and aircraft are used to spot schools of king mackerel before the nets are struck or set. Bycatch of other species is rare for this fishery, because the spotter planes direct the gillnet deployment efforts of the fishing vessels around schooling king mackerel on the water's surface.

In the Florida West Coast Southern Subzone, the gillnet quota is equal to the hook-and-line quota at 551,448 lbs, and has a trip limit of 25,000 lbs. The fishing year ends June 30, but the quota is usually reached within one to two weeks after opening. Vessels with a commercial king mackerel permit and a commercial king mackerel gillnet permit may not harvest king mackerel with gear other than a run-around gillnet; therefore, the gillnet component cannot also harvest fish using hook-and-line gear after the gillnet season is closed. Recent landings of king mackerel by gillnet are shown in Table 1.1.1.

3.2 Description of the Physical Environment

The Gulf has a total area of approximately 600,000 square miles (1.5 million km^2), including state waters (Gore 1992). It is a semi-enclosed, oceanic basin connected to the Atlantic Ocean by the Straits of Florida and to the Caribbean Sea by the Yucatan Channel. Oceanographic conditions are affected by the Loop Current, discharge of freshwater into the northern Gulf, and a semi-permanent, anti-cyclonic gyre in the western Gulf. The Gulf includes both temperate and tropical waters (McEachran and Fechhelm 2005). Mean annual sea surface temperatures ranged from 73 through 83º F (23-28º C) including bays and bayous (Figure 3.2.1) between 1982 and 2009, according to satellite-derived measurements (NODC 2012: http://accession.nodc.noaa.gov/0072888). In general, mean sea surface temperature increases from north to south with large seasonal variations in shallow waters.

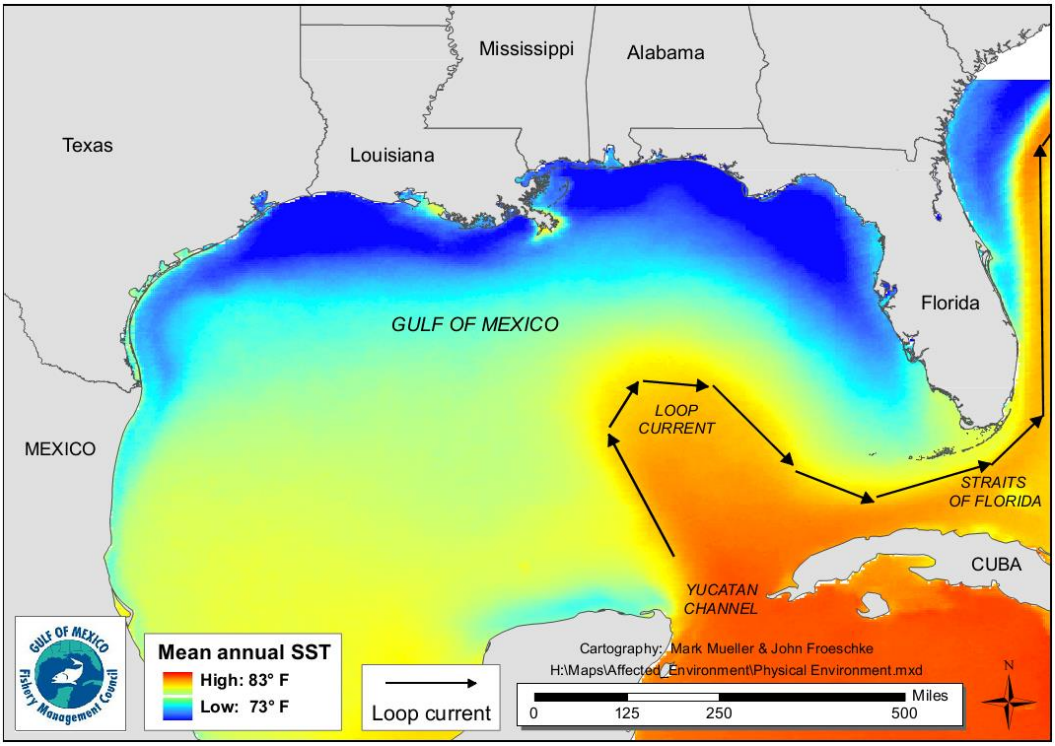

Figure 3.2.1. Mean annual sea surface temperature derived from the Advanced Very High Resolution Radiometer Pathfinder Version 5 sea surface temperature data set (http://pathfinder.nodc.noaa.gov).

The physical environment is detailed in the Environmental Impact Statement for the Generic Essential Fish Habitat (EFH) Amendment (GMFMC 2005) and the Generic Annual Catch Limits (ACLs)/Accountability Measures (AMs) Amendment (GMFMC 2011) which are hereby incorporated by reference and updated below.

In the Gulf, the U.S.S. Hatteras, located in federal waters off Texas, is listed in the National Register of Historic Places. Fishing activity already occurs in the vicinity of this site, but the proposed action would have no additional adverse impacts on listed historic resources, nor would they alter any regulations intended to protect them. Historical research indicates that over 2,000 ships sank on the federal outer continental shelf between 1625 and 1951; thousands more sank closer to shore in state waters during the same period. Only a handful of these have been scientifically excavated by archaeologists for the benefit of generations to come. Further information can be found at: http://www.boem.gov/Environmental-Stewardship/Archaeology/Shipwrecks.aspx

Habitat Areas of Particular Concern (HAPC)

Generic Amendment 3 (GMFMC 2005) for addressing EFH, HAPC, and adverse effects of fishing in the following fishery management plans of the Gulf Reef Fish, Red Drum, and CMPs is hereby incorporated by reference.

Environmental Sites of Special Interest Relevant to Coastal Migratory Pelagic Species (Figure 3.2.2)

Tortugas North and South Marine Reserves – No-take marine reserves (185 nm^2) cooperatively implemented by the state of Florida, National Ocean Service, the Gulf of Mexico Fishery Management Council (Council), and the National Park Service in Generic Amendment 2 Establishing the Tortugas Marine Reserves (GMFMC 2001).

Reef and bank areas designated as HAPCs in the northwestern Gulf include – East and West Flower Garden Banks, Stetson Bank, Sonnier Bank, MacNeil Bank, 29 Fathom, Rankin Bright Bank, Geyer Bank, McGrail Bank, Bouma Bank, Rezak Sidner Bank, Alderice Bank, and Jakkula Bank – pristine coral areas protected by preventing the use of some fishing gear that interacts with the bottom and prohibited use of anchors (totaling 263.2 nm^2 or 487.4 km^2). Subsequently, three of these areas were established as marine sanctuaries (i.e., East and West Flower Garden Banks and Stetson Bank). Bottom anchoring and the use of trawling gear, bottom longlines, buoy gear, and all traps/pots on coral reefs are prohibited in the East and West Flower Garden Banks, McGrail Bank, and on significant coral resources on Stetson Bank (GMFMC 2005). A weak link in the tickler chain of bottom trawls on all habitats throughout the exclusive economic zone (EEZ) is required. A weak link is defined as a length or section of the tickler chain that has a breaking strength less than the chain itself and is easily seen as such when visually inspected. An education program for the protection of coral reefs when using various fishing gears in coral reef areas for recreational and commercial fishermen was also developed.

Pulley Ridge HAPC - A portion of the HAPC (2,300 nm^2 or 4,259 km^2) where deepwater hermatypic coral reefs are found is closed to anchoring and the use of trawling gear, bottom longlines, buoy gear, and all traps/pots (GMFMC 2005).

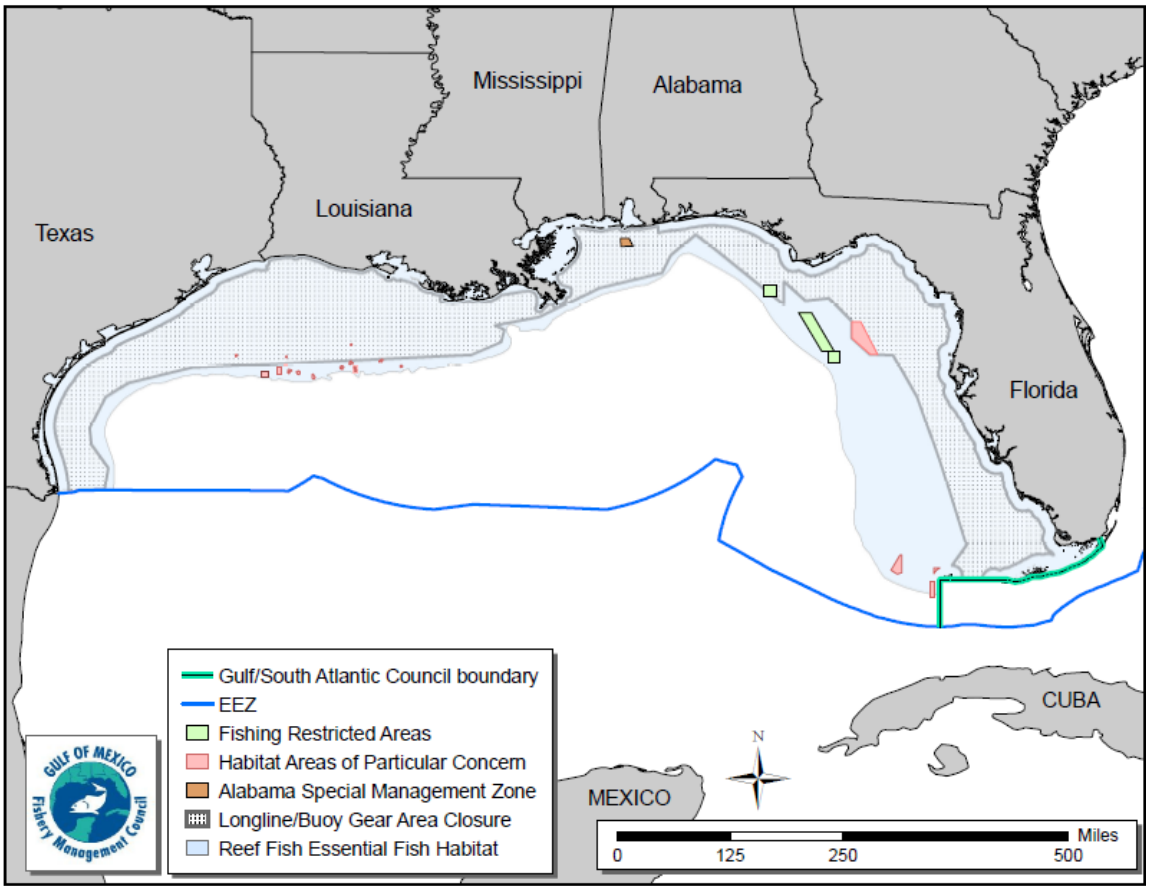

Figure 3.2.2. Map of most fishery management closed areas in the Gulf.

3.3 Description of the Biological Environment

A detailed description of the biological environment for CMP species is provided in Amendment 18 (GMFMC and SAFMC 2011), and is incorporated herein by reference and summarized below.

3.3.1 King Mackerel

King mackerel is a marine pelagic species that is found throughout the western Atlantic from the Gulf of Maine to Brazil, including the Gulf and Caribbean Sea, and from the shore to 200 m depths. The habitat of adults is the coastal waters out to the edge of the continental shelf. Within the area, the occurrence of king mackerel is governed by temperature and salinity. They are seldom found in water temperatures less than 20°C; salinity preference varies, but they generally prefer high salinity, less than 36 parts per thousand (ppt).

Adults are migratory, and the CMP FMP recognizes two migratory groups (Gulf and Atlantic). Typically, adult king mackerel are found in the southern climates (south Florida and extreme south Texas/Mexico) in the winter and farther north in the summer; however some king mackerel overwinter in deeper waters off the mouth of the Mississippi River, and off the coast of North

Carolina. Food availability and water temperature are likely causes of these migratory patterns. King mackerel have longevities of 24 to 26 years for females and 23 years for males (GMFMC and SAFMC 1985; MSAP 1996; Brooks and Ortiz 2004).

Adults are known to spawn in areas of low turbidity, with salinity and temperatures of approximately 30 ppt and 27°C, respectively. There are major spawning areas off Louisiana and Texas in the Gulf (McEachran and Finucane 1979); and off the Carolinas, Cape Canaveral, and Miami in the western Atlantic (Wollam 1970; Schekter 1971; Mayo 1973). Spawning occurs generally from May through October with peak spawning in September (McEachran and Finucane 1979). Eggs are believed to be released and fertilized continuously during these months. Females may mature first when they are 450 to 499 mm (17.7 to 19.6 inches) in length and most are mature by the time they are 800 mm (35.4 inches) in length, or by about age 4. Males are usually sexually mature at age 3, at a length of 718 mm (28.3 inches). Females in U.S. waters, between the sizes of 446-1,489 mm (17.6 to 58.6 inches) release 69,000-12,200,000 eggs.

Larvae of king mackerel have been found in waters with temperatures between 26-31° C (79-88° F). This larval developmental stage has a short duration. King mackerel can grow up to 0.54-1.33 mm (0.02 to 0.05 inches) per day. This shortened larval stage decreases the vulnerability of the larvae, and is related to the increased metabolism of this fast-swimming species. Juveniles are generally found closer to shore than adults and occasionally in estuaries.

3.3.2 Protected Species

Species in the Gulf protected under the Endangered Species Act (ESA) include: seven marine mammal species (blue, sei, fin, humpback, sperm, North Atlantic right whales and manatees); five sea turtle species (Kemp's ridley, loggerhead, green, leatherback, and hawksbill); two fish species (Gulf sturgeon, and smalltooth sawfish); and seven coral species (elkhorn, staghorn, lobed star, knobby star, mountainous star, pillar, and rough cactus). Twelve species of fish and invertebrates in the Gulf are currently listed as species of concern.

In a 2015 biological opinion, NMFS determined CMP fishing in the Southeastern United States was not likely to be jeopardized the continued existence of endangered sea turtles, Atlantic sturgeon, or smalltooth sawfish (NMFS 2015). Other listed species are not likely to be adversely affected, including ESA-listed whales, Gulf sturgeon, and *Acropora* corals. In addition, the CMP fishery is not likely to adversely affect designated critical habitats for elkhorn and staghorn corals or loggerhead sea turtles, and will have no effect on designated critical habitat for North Atlantic right whale.

The Gulf and South Atlantic CMP gillnet fishery is classified as Category II fishery in the 2015 Marine Mammals Protection Act List of Fisheries (79 FR 77919). This classification indicates an occasional incidental mortality or serious injury of a marine mammal stock resulting from the fishery (1-50% annually of the potential biological removal). The fishery has no documented interaction with marine mammals; NMFS classifies this fishery as Category II based on analogy (i.e., similar risk to marine mammals) with other gillnet fisheries.

3.4 Description of the Economic Environment

An economic description of the commercial sector for the CMP species is contained in Vondruska (2010) and is incorporated herein by reference. Updated select summary statistics are contained in Amendment 20B (GMFMC/SAFMC 2014) for king mackerel, and are incorporated herein by reference. Because this proposed framework amendment would only change the management of the gillnet component of the commercial king mackerel sector of the CMP fishery, this assessment mainly focuses on this specific sector. Information on the recreational sector is not relevant and is therefore not provided in this assessment.

Permits

The commercial king mackerel permit is a limited access permit that can be transferred or sold, subject to certain conditions. From 2008 through 2014, the number of commercial king mackerel permits decreased from 1,619 to 1,478, with an average of 1,534 during this period (NMFS SERO Permits Data, retrieved April, 2015). As of April 30, 2015, there were 1,342 valid or renewable commercial king mackerel permits. The king mackerel gillnet permit, which is a permit attached to a commercial king mackerel permit, is also a limited access permit. Its transferability is more restrictive than that for the commercial king mackerel permit. Specifically, it may be transferred only to another vessel owned by the same entity or to an immediate family member. From 2008 through 2014, there were an average of 23 king mackerel gillnet permits (NMFS SERO Permits Data, retrieved April, 2015). At present, there are 21 valid or renewable king mackerel gillnet permits. Beginning in 2014, a federal dealer permit has been required to purchase king mackerel (among other species) harvested in the Gulf or South Atlantic. This dealer permit is an open access permit, and as of May 4, 2015, there were 325 such dealer permits.

Number of Vessels and Ex-vessel Revenues

There are 21 valid or renewable king mackerel gillnet permits and transferability is subject to relatively strict conditions. Over time, some permit holders transferred their permits from one vessel to another owned by the same permit holder. These transfers were tracked and landings were accordingly assigned to permit holders using information from logbook records. Gillnet fishing for king mackerel usually lasts less than one month, with even fewer actual fishing days (see Table 1.1.1). When not fishing for king mackerel, vessels with gillnet permits fish for other species, such as other CMP species, reef fish, spiny lobster, and stone crabs, although they cannot fish for king mackerel with hook and line. A summary of king mackerel and other species landings and revenues of the 21 “vessels” with permits from 2006 through 2014 (calendar year) is presented in Table 3.4.1. Other species listed in this table do not include spiny lobster, stone crabs, and other species not generally covered by the federal logbook system. It is reported that some of these vessels are heavily engaged in the spiny lobster or stone crab fisheries, so estimates in Table 3.4.1 may be underestimates. Not all vessels harvested king mackerel or other species in some years, and some vessels that did not catch king mackerel landed other species. Revenues per vessel are averaged across all 21 vessels. All dollar values are converted to 2014 dollars.

Of the 21 vessels with king mackerel gillnet permits, 11 to 15 vessels landed king mackerel in 2006-2014, or an average of 13 vessels landed king mackerel annually (Table 3.4.1). These vessels generated a combined average of $544,981 in total annual ex-vessel revenues. These vessels, together with those that had gillnet permits but did not catch king mackerel, generated average annual revenues of $427,258 from other species during 2006-2014. Averaging total revenues across all 21 vessels, the average total revenue per vessel was $46,297.

Table 3.4.1. Landings and revenues by 21 vessels with king mackerel gillnet permits, 2006-2014.

Year	Number of Vessels	King Mackerel Landings (lbs)	Other Species Landed [1] (lbs gw)	Revenue from King Mackerel (2014 $)	Revenue from Other Species (2014 $)	Total Revenue (2014 $)	Total Revenue per Vessel (2014 $)
2006	21(11)	386,198	657,695	$442,978	$606,257	$1,049,235	$49,964
2007	21(12)	442,234	445,221	$467,760	$469,152	$936,912	$44,615
2008	21(13)	433,483	409,429	$476,520	$674,178	$1,150,698	$54,795
2009	21(13)	587,724	858,401	$588,918	$750,104	$1,339,022	$63,763
2010	21(13)	517,460	381,014	$566,345	$426,474	$992,819	$47,277
2011	21(12)	451,292	319,002	$577,189	$368,545	$945,734	$45,035
2012	21(14)	439,248	279,391	$524,233	$310,874	$835,107	$39,767
2013	21(15)	486,478	216,885	$629,953	$188,168	$818,121	$38,958
2014	21(15)	610,873	50,320	$630,936	$51,569	$682,505	$32,500
Avg.	21(13)	483,888	401,929	$544,981	$427,258	$972,239	$46,297

1 Other species caught by these vessels do not include spiny lobster, stone crabs, and other species not generally covered by the federal logbook system.
Note: Vessels in parentheses are those that landed king mackerel. Not all 21 vessels landed king mackerel in all years and some vessels that did not catch king mackerel landed other species. Revenues per vessel are total revenues averaged across 21 vessels. In 2015, 13 vessels with king mackerel gillnet permits landed a total of 547,298 pounds of king mackerel.
Source: NMFS SEFSC Logbook and ALS data.

Dealers

As noted, a federal dealer permit had not been required to purchase king mackerel caught in the Gulf or South Atlantic until 2014, and as of May 4, 2015, 325 such dealer permits were issued. However, only a few dealers have been purchasing king mackerel landed by gillnet fishermen. This was true even in those years before a federal dealer permit was required to purchase king mackerel. All dealers that purchased king mackerel from gillnet fishermen are located in Monroe, Hernando, and Orange counties of Florida. From 2008 through 2015, the number of dealers that purchased king mackerel from gillnet fishermen ranged from 4 to 6, with an average of 5. On average (2008-2015), these dealers purchased approximately $570,105 (2014 dollars) worth of king mackerel from gillnet fishermen per year, or an average of $114,021 per dealer.

Business Activity

The commercial harvest and subsequent sale and consumption of fish generates business activity as fishermen expend funds to harvest the fish and consumers spend money on goods and services, such as king mackerel purchased at a local fish market and served during restaurant visits. These expenditures spur additional business activity in the region(s) where the harvest and purchases are made, such as jobs in local fish markets, grocers, restaurants, and fishing supply establishments. In the absence of the availability of a given species for purchase, consumers would spend their money on substitute goods and services. As a result, the analysis presented below represents a distributional analysis only; that is, it only shows how economic effects may be distributed through regional markets. In addition, the focus of the distributional analysis is king mackerel landings by vessels with king mackerel gillnet permit as well as all species landed by the 21 vessels with king mackerel gillnet permits.

Estimates of the average annual business activity associated with the commercial harvest of king mackerel by 21 vessels with a king mackerel gillnet permit and all species harvested by these vessels were derived using the model developed for and applied in NMFS (2011) and are provided in Table 3.4.2. This business activity is characterized as full-time equivalent jobs, income impacts (wages, salaries, and self-employed income), and output (sales) impacts (gross business sales). Income impacts should not be added to output (sales) impacts because this would result in double counting.

Table 3.4.2. Average annual business activity associated with the commercial harvest of king mackerel and other species by the 21 vessels with king mackerel gillnet permits. All monetary estimates are in 2014 dollars.

Species	Average Ex-vessel Value (millions)	Total Jobs	Harvester Jobs	Output (Sales) Impacts (millions)	Income Impacts (millions)
King Mackerel	$0.509	92	12	$6.71	$2.86
All Species	$0.898	162	21	$11.83	$5.04

3.5 Description of the Social Environment

The king mackerel gillnet fishery is prosecuted primarily along the southwest coast of Florida by a small number of participants. The number of vessels with permits to fish using this particular gear is quite small, with only 21 valid or renewable permits as of April 21, 2015. Since 2001, only 17 vessels have recorded landings and those vessels have a homeport on Florida's west coast or in the Keys (Figure 3.5.1).

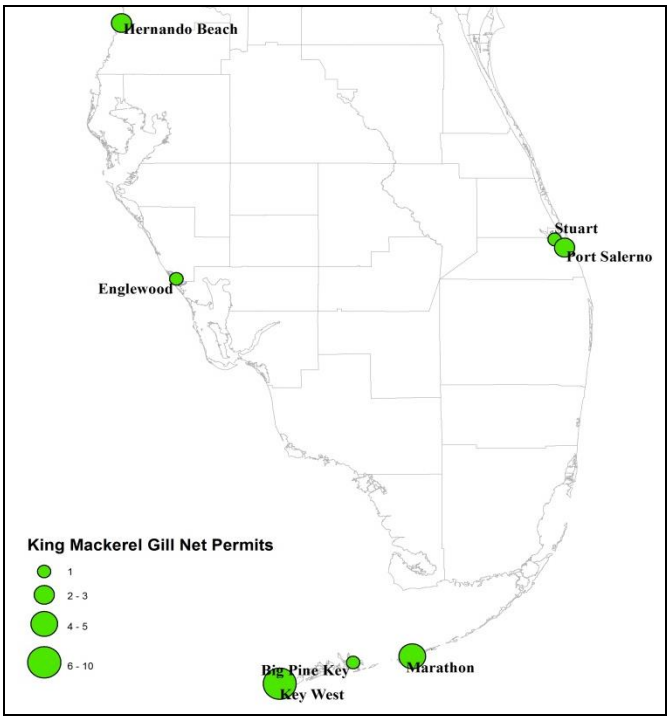

Figure 3.5.1. King mackerel gillnet permit holders location by designated homeport.
Source: Southeast Regional Office (SERO) Permits 2015.

Fishing vessels are guided to schools of fish by pilots who fly over Gulf waters and locate the fish. Vessels may cooperate among themselves to determine who will make sets prior to running their nets around a school of fish. This may help ensure the fish are caught but that the trip limit is not exceeded by a particular vessel. In some cases where a vessel has made a set that will obviously exceed the trip limit, others may agree to transfer part of the fish laden net to their vessel to allow those with too many fish in their net to avoid overages and not contribute significantly to bycatch. As the quota closure nears, the gillnetters may also cooperate in designating which vessels will fish on the remaining quota, so as to limit quota overages.

The gillnet fishing for king mackerel has been prosecuted by a small number of vessels who have also cooperated with NMFS over the past three years by reporting landings daily while the fishing season is open. This cooperation has helped vessels to harvest close to, without exceeding, the quota. Since 2005 the quota has been exceeded several times, in some cases substantially, although in the last three years the quota has not been exceeded. The season is often short and can last from a few days to a few weeks. In most recent year, fishing was open less than 10 days, although there was no closure in 2013.

Most vessels with gillnet permits have a capacity to hold more fish per trip than the current trip limit. Catching more fish per trip would likely shorten the open season, but would also allow for an earlier transition to other gear types and fisheries. A recent industry initiated survey showed a majority of participants would support a larger trip limit, although those with a smaller hold capacity would be at a disadvantage and might have to make more trips to compensate for the advantage their competitors may have with larger holds. Fines for exceeding the trip limit can be

substantial, and estimating the amount of fish present within a gillnet is always a guess, although fishermen are often very adept at knowing and gauging the capacity of their gear.

Fishermen have expressed their preference to avoid trip limit infractions by adopting a higher trip limit which should lessen that possibility. To that end, recent actions by the gillnet fleet including the industry-initiated survey, cooperation in harvesting, and self-reporting of landings to NMFS demonstrates characteristics of co-management or adaptive co-management (Armitage et al. 2009). Although not a formal management regime, this participation in self-management illustrates some benefits of cooperative management systems, as long as all participants are willing to take part. However, a breakdown in the informal agreements could result in overages and create some disparity among permit holders, which may, in turn, contribute to further disintegration of cooperative behavior.

Many vessels with king mackerel gillnet permits participate in other fisheries throughout the year with many participating in lobster and stone crab fishing. Time devoted to king mackerel gillnet fishing, in terms of the percentage of annual income from all fishing is rather minor in comparison to time spent in other fisheries, yet the revenues gained could be an important contribution to their overall business revenues.

The number of vessels with permits within most communities is small and in some cases may be the sole king mackerel gillnet vessel homeported within a community. To examine the extent and importance of fishing to relevant communities, measures of fishing engagement and reliance are shown in Figure 3.5.2 for the homeports reported for the vessels holding king mackerel gillnet permits.

The engagement and reliance indices are composed of existing permit and landings data that were created to provide a more empirical measure of fishing dependence (Jepson and Colburn 2013; Jacob et al. 2012). Fishing engagement uses the absolute numbers of permits, landings, and value, while fishing reliance includes many of the same variables as engagement, but divides them by population to give an indication of the per capita impact of this activity.

Using a principal component and single solution factor analysis each community receives a factor score for each index to compare to other communities. Factor scores are represented by colored bars and are standardized, therefore the mean is zero. Two thresholds of 1 and ½ standard deviation above the mean are plotted onto the graphs to help determine thresholds for significance. Because the factor scores are standardized, a score above 1 is also above one standard deviation.

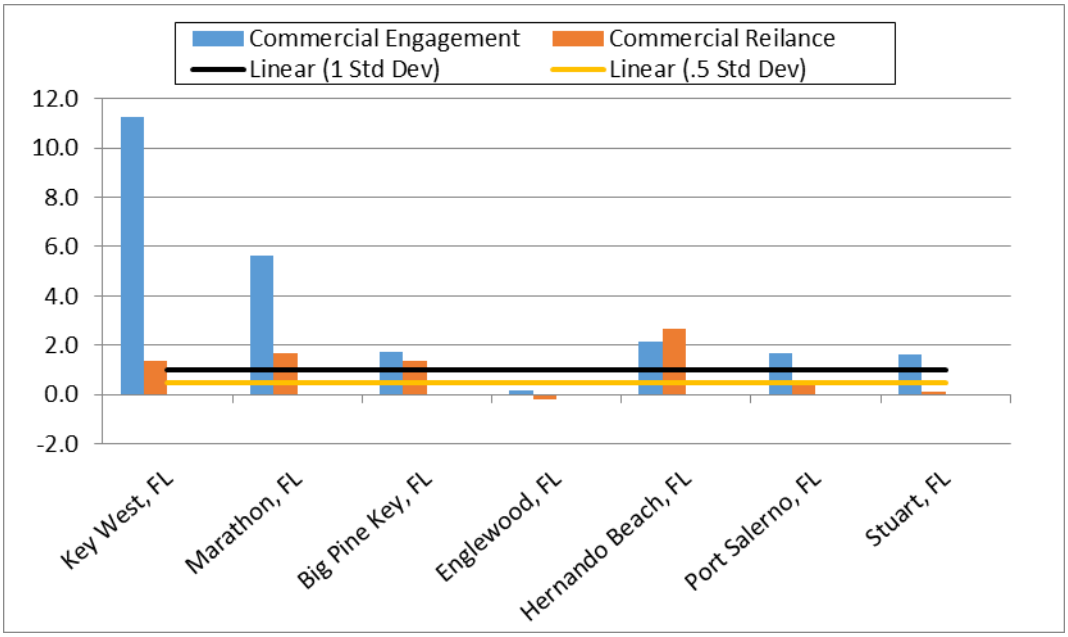

Figure 3.5.2. Top king mackerel gillnet fishing homeport communities' commercial engagement and reliance.
Source: Southeast Regional Office, social indicators database (2012).

All of the communities in Figure 3.5.2, except for Englewood, are substantially engaged and most are reliant upon commercial fishing. These communities would be considered to depend on fishing for an important part of their economy. The contribution of the mackerel gillnet component to the overall economy is unknown. However, because these vessels participate in other fisheries, it is likely that they are important contributors to the fishing economy of these listed communities.

3.5.1 Environmental Justice (EJ) Considerations

To assess whether a community may be experiencing EJ issues, a suite of indices created to examine the social vulnerability of coastal communities (Jepson and Colburn 2013; Jacob et al. 2012) is presented in Figure 3.4.3. The three indices are poverty, population composition, and personal disruptions. The variables included in each of these indices have been identified through the literature as being important components that contribute to a community's vulnerability. Indicators such as increased poverty rates for different groups, more single female-headed households and children under the age of 5, disruptions such as higher separation rates, higher crime rates, and unemployment all are signs of vulnerable populations. These indicators are closely aligned to previously used measures of EJ which used thresholds for the number of minorities and those in poverty, but are more comprehensive in their assessment. Again, for those communities that exceed the threshold it would be expected they would exhibit vulnerabilities to sudden changes or social disruption that might accrue from regulatory change. It should be noted that some communities may not appear in these figures as there are no census data available to create the indices.

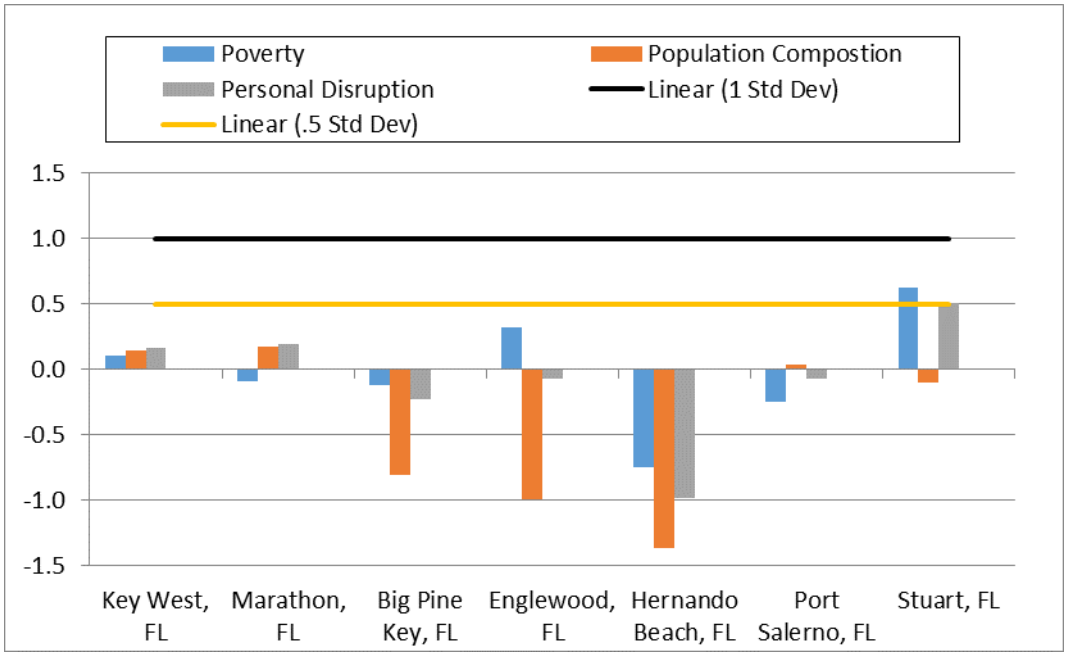

Figure 3.5.3. Social vulnerability indices for king mackerel gillnet commercial fishing communities.
Source: Southeast Regional Office, social indicators database (2012).

Only one community in Figure 3.5.3 demonstrates social vulnerabilities. Stuart, Florida has two of its social vulnerability indices at or slightly above a ½ standard deviation. This implies that the community may be experiencing some social vulnerability through higher than normal rates of poverty and personal disruption. Yet, because they are below 1 standard deviation the vulnerabilities are likely to be nominal. Given the results in Figure 3.5.3, it is unlikely that any environmental justices issues would arise as a result of this amendment. Furthermore, the actions within this amendment are not expected to impose undue hardships on minorities or those in poverty or to affect these populations differently than the general public.

Finally, the participatory process used in the development of fishery management measures (e.g., scoping meetings and public hearings) is expected to provide sufficient opportunity for meaningful involvement by potentially affected individuals and have their concerns factored into the decision process. Public input from individuals who participate in the fishery has been considered and incorporated into management decisions throughout development of the amendment.

3.6 Description of the Administrative Environment

3.6.1 Federal Fishery Management

Federal fishery management is conducted under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (16 U.S.C. 1801 *et seq*.), originally enacted in 1976 as the Fishery Conservation and Management Act. The Magnuson-Stevens Act claims sovereign rights and exclusive fishery management authority over most fishery resources within the EEZ, an area extending 200 nautical miles from the seaward boundary of each of the coastal states, and authority over U.S. anadromous species and continental shelf resources that occur beyond the EEZ.

Responsibility for federal fishery management decision-making is divided between the U.S. Secretary of Commerce (Secretary) and eight regional fishery management councils that represent the expertise and interests of constituent states. Regional councils are responsible for preparing, monitoring, and revising management plans for fisheries needing management within their jurisdiction. The Secretary is responsible for collecting and providing the data necessary for the councils to prepare fishery management plans and for promulgating regulations to implement proposed plans and amendments after ensuring that management measures are consistent with the Magnuson-Stevens Act and with other applicable laws. In most cases, the Secretary has delegated this authority to NMFS.

The Council is responsible for fishery resources in federal waters of the Gulf. These waters extend to 200 nautical miles offshore from the nine-mile seaward boundary of the states of Florida and Texas, and the three-mile seaward boundary of the states of Alabama, Mississippi, and Louisiana. The Council consists of 17 voting members, 11 of whom are appointed by the Secretary, the NMFS Regional Administrator, and one each from each of five Gulf States marine resource agencies. Non-voting members include representatives of the U.S. Fish and Wildlife Service, U.S. Coast Guard (USCG), U.S. Department of State, and Gulf States Marine Fisheries Commission (GSMFC).

The Council uses their Scientific and Statistical Committee to review data and science used in assessments and fishery management plans/amendments. Regulations contained within FMPs are enforced through actions of the NMFS' Office for Law Enforcement, the USCG, and various state authorities.

The public is involved in the fishery management process through participation at public meetings, on advisory panels, and through council meetings that, with few exceptions for discussing personnel or legal matters, are open to the public. The regulatory process is in accordance with the Administrative Procedures Act, in the form of "notice and comment" rulemaking, which provides extensive opportunity for public scrutiny and comment, and requires consideration of and response to those comments.

3.6.2 State Fishery Management

The purpose of state representation at the Council level is to ensure state participation in federal fishery management decision-making and to promote the development of compatible regulations in state and federal waters. The state governments have the authority to manage their respective state fisheries including enforcement of fishing regulations. Each of the five states exercises legislative and regulatory authority over their states' natural resources through discrete administrative units. Although each agency listed below is the primary administrative body with respect to the state's natural resources, all states cooperate with numerous state and federal regulatory agencies when managing marine resources.

The states are also involved through the GSMFC in management of marine fisheries. This commission was created to coordinate state regulations and develop management plans for interstate fisheries.

NMFS' State-Federal Fisheries Division is responsible for building cooperative partnerships to strengthen marine fisheries management and conservation at the state, inter-regional, and national levels. This division implements and oversees the distribution of grants for two national (Inter-jurisdictional Fisheries Act and Anadromous Fish Conservation Act) and two regional (Atlantic Coastal Fisheries Cooperative Management Act and Atlantic Striped Bass Conservation Act) programs. Additionally, it works with the GSMFC to develop and implement cooperative State-Federal fisheries regulations.

More information about these agencies can be found from the following web pages:
Texas Parks & Wildlife Department - http://www.tpwd.state.tx.us
Louisiana Department of Wildlife and Fisheries http://www.wlf.state.la.us/
Mississippi Department of Marine Resources http://www.dmr.state.ms.us/
Alabama Department of Conservation and Natural Resources http://www.dcnr.state.al.us/
Florida Fish and Wildlife Conservation Commission http://www.myfwc.com

CHAPTER 4: ENVIRONMENTAL CONSEQUENCES

4.1 Action 1: Modify the Commercial King Mackerel Gillnet Trip Limit

Alternative 1: No Action – Do not modify the commercial king mackerel gillnet trip limit of 25,000 lbs. per day.

Alternative 2: Increase the trip limit to 35,000 lbs.

Preferred Alternative 3: Increase the trip limit to 45,000 lbs.

Alternative 4: Remove the trip limit for the commercial king mackerel gillnet component of the fishery.

4.1.1 Direct and Indirect Effects on the Physical/Biological Environments

King mackerel are typically caught at the ocean surface and therefore gillnet gear does not generally come in contact with bottom habitat. However, gillnets have the potential to snag and entangle bottom structures and cause tear-offs or abrasions (Barnette 2001). If gear is lost or improperly disposed of, it can entangle marine life. Entangled gear often becomes fouled with algal growth. If fouled gear becomes entangled on corals, the algae may eventually overgrow and kill the coral.

Management actions that affect the physical/biological environments mostly relate to the impacts of fishing on a species' population size, life history, and the role of the species within its habitat. Removal of fish from the population through fishing can reduce the overall population size if harvest is not maintained at sustainable levels. Based on Table 3.1.1.1, the quota for the gillnet component of the Florida West Coast Southern Subzone would still be reached before the end of the fishing year regardless of the trip limit. Higher trip limits may, however, result in fewer gillnet gear deployments, thereby reducing discards and would have a positive effect on the biological environment. Fewer gear deployments could have a positive effect on the physical environment, in that there would be less risk of gear becoming fouled on bottom structure.

The potential for exceeding the gillnet component's annual catch limit (ACL) exists regardless of the trip limit, with the greatest risk assumed under **Alternative 4**, followed by **Preferred Alternative 3**, **Alternative 2**, and **Alternative 1**. This risk stems from the amount of time between when landings are reported by National Marine Fisheries Service (NMFS) port agents and federally permitted seafood dealers to the Southeast Fisheries Science Center (SEFSC) for quality control and quality assurance, and then finally to the NMFS Southeast Regional Office (SERO) for quota monitoring and closure of the fishing season. Improvements in accountability measures to reduce the risk of exceeding the gillnet component's quota are presented and

discussed further in Action 3. Changes to bycatch rates per gillnet set are not expected, since the method by which harvest is currently conducted is not expected to change.

4.1.2 Direct and Indirect Effects on the Economic Environment

This action considers increases in the daily trip limit for the gillnet component of the commercial king mackerel fishery. Proposed increases would either establish trip limits of 35,000 lbs (**Alternative 2**), 45,000 lbs (**Preferred Alternative 3**), or remove the trip limit for the commercial king mackerel gillnet component (**Alternative 4**). **Alternative 1**, the no action alternative, would not affect the commercial harvests of king mackerel using gillnets and would therefore not be expected to result in economic effects.

Increases in the daily trip limit would be expected to result in greater king mackerel harvests per vessel per trip. This would directly translate into increased ex-vessel revenues from king mackerel per trip and possibly profits, assuming relatively stable operating costs per trip. However, trip limit increases would be expected to decrease the already limited number of fishing days currently needed to harvest the gillnet portion of the king mackerel quota. Relative to status quo, fewer fishing days would concentrate the same amount of king mackerel over a smaller time interval, possibly depressing the ex-vessel price for king mackerel and canceling out some of the revenue increases expected to result from higher trip limits. Net economic effects expected to result from increases in king mackerel gillnet trip limits would be determined by the relative magnitude of the potential increases in ex-vessel revenues and possible decreases in ex-vessel prices discussed in this section. These economic effects cannot be quantified at this time due to data limitations. Although data relative to average total ex-vessel revenues per vessel are available, data on current operating costs and the changes in operating costs due to trip limit increases are not available.

4.1.3 Direct and Indirect Effects on the Social Environment

Additional effects would not be expected from retaining the gillnet trip limit of 25,000 lbs per day (**Alternative 1**). By not modifying the trip limit (retaining **Alternative 1)**, vessels with gillnet permits will still have a viable fishery, but may continue to experience a high risk of exceeding the trip limit. Most vessels have a hold capacity that is greater than the current trip limit and could accommodate a higher amount of landings as allowed under **Alternative 2** or **Preferred Alternative 3**, although these alternatives would likely shorten the season considerably. Removing the trip limit completely (**Alternative 4**) would eliminate all possibility of infractions for exceeding the trip limit, but likely would increase the possibility for quota overages. The potential for exceeding the quota also becomes an increasing possibility with a higher trip limit, especially if the cooperative behavior and self-regulation that has been part of this component of the fishery does not continue. For any increase to the trip limit (**Alternative 2** or **Preferred Alternative 3**) or removal of the trip limit (**Alternative 4**), broad social benefits would be expected as the mackerel gillnet fishermen are able to refit their vessels sooner for other fisheries as they would be expected to reach the quota faster.

The increase in the trip limit between **Alternative 2** to **Preferred Alternative 3** would be expected to reduce the likelihood of any penalty from exceeding the trip limit. Although

Alterative 4 would be expected to eliminate the occurrence of incurring fines for exceeding the trip limit and provide the gillnet fleet with the greatest amount of local autonomy to control landings, it would require the gillnet fishermen to monitor their landings and account for fish that were caught over the quota. That the industry expressed acceptance of an overage adjustment in the event the quota is exceeded (see Action 2), provides support for the fleet's confidence in the ability to constrain landings among the small group of participants.

4.1.4 Direct and Indirect Effects on the Administrative Environment

If any one of **Alternatives 2-4** are chosen as preferred, the burden on the administrative environment would be increased relative to **Alternative 1** because the trip limit for the gillnet component of the Florida West Coast Southern Subzone would be increased. Increasing the trip limit may have an inverse relationship to the number of days during which fishing occurs, which would make it more difficult for NMFS to close the fishery under the current landings reporting system (see Section 4.4 for more information on how to resolve this issue). A faster pace of landings may require a greater presence by NMFS port agents to ensure that trip limit violations are recorded and quota overruns are prevented. Additionally, improvements in the reporting system to provide landings information in a more timely fashion to NMFS would reduce the likelihood of delays in closing the gillnet season resulting in quota overruns.

4.2 Action 2: Modify Accountability Measures for the Gillnet Component of the Commercial King Mackerel Fishery

Alternative 1: No Action – Do not modify accountability measures (AMs) for the gillnet component of the commercial king mackerel fishery. Currently, the gillnet component of the Florida West Coast Subzone commercial king mackerel fishery is closed when the quota is met or projected to be met.

Alternative 2: Establish an annual catch target (ACT) for the gillnet component of the commercial king mackerel fishery that is below the ACL and will be the quota. The gillnet component of the commercial king mackerel fishery will be closed when the ACT is met or projected to be met.

Option a: ACT is equal to 95% of the ACL
Option b: ACT is equal to 90% of the ACL
Option c: ACT is equal to 80% of the ACL
Option d: ACT is based on the Gulf of Mexico Fishery Management Council's ACL/ACT Control Rule
Option e: If the king mackerel gillnet component of the commercial fishery does not land its quota (ACT) in a given year, then the amount of any landings under the quota will be added to the following year's quota, up to but not exceeding the ACL. This quota "carry-over" will be reduced to account for the natural mortality rate according to the best scientific information available.

Preferred Alternative 3: If the Florida West Coast Southern Subzone gillnet ACL is exceeded in a year, NMFS would reduce the Florida West Coast Southern Subzone gillnet ACL in the following year by the amount of the overage. The ACT (if established) will also be adjusted to reflect the previously established percent buffer.

Preferred Option a: Payback regardless of stock status
Option b: Payback only if the Gulf migratory group king mackerel stock is overfished

4.2.1 Direct and Indirect Effects on the Physical/Biological Environments

The proposed AMs in **Alternative 2** and **Preferred Alternative 3** are not expected to alter the manner in which fishermen harvest king mackerel with gillnets; however, closing the fishing season based on an ACT set lower than the ACL could result in fewer gillnet gear deployments, thereby reducing discards and would have a positive effect on the biological environment. Fewer gear deployments could have a positive effect on the physical environment, in that there would be less of a risk of gear becoming fouled on bottom structure. Though the potential for positive effects exists, the degree to which the number of gear deployments would be reduced based upon **Options a-d** in **Alternative 2** may be minimal when compared to **Alternative 1** (see Table 2.1.1).

Indirect positive physical effects could be expected through decreased fishing pressure under **Alternative 2**, with this indirect effect being directly correlated to the difference between the ACL and the ACT (see **Options a-d**). Positive indirect effects from **Options a-d** could be

negated depending on the amount of any carry-over (**Option e**), up to a point such that there would be no difference in effects to the physical environment from **Alternative 1**.

Establishing an ACT at some level below the gillnet component's ACL would result in the fishery being closed when the ACT is met or projected to be met, as opposed to the ACL (**Alternative 2**, **Options a-d**). This would result in a direct positive biological effect for the stock, as more biomass would be left in the water as opposed to being harvested or falling out of the nets. This type of AM provides biological protection and prevents overfishing. **Alternative 2**, **Option e**, however, would allow any remaining amount of the ACT not harvested in the current fishing year to be carried over to the following fishing year, up to but not to exceed that year's ACL for the gillnet component. If such a carry-over were to occur, it would permit the harvest of additional biomass from the fishery. However, so long as the ACL is not exceeded and overfishing does not occur, any biological effects would be negligibly different from those in **Alternative 1**.

Preferred Alternative 3 would establish a payback provision where any landings in excess of the Florida West Coast Southern Subzone gillnet component's ACL in the current fishing year would be deducted from the following year's ACL, either regardless of stock status (**Preferred Option a**) or only if Gulf migratory group king mackerel are overfished (**Option b**). Under **Preferred Option a**, a payback would be implemented any time the Florida West Coast Southern Subzone gillnet ACL is exceeded, thereby providing the best annual insurance against negative biological impacts from ACL overages. Under **Option b**, any ACL overage by the gillnet component will not be balanced by an equivalent reduction in the subsequent fishing year's ACL unless Gulf migratory group king mackerel are overfished. By not having ACL overages balanced by paybacks, additional biomass beyond that which has been determined to be acceptable using the best scientific information available will be harvested, and could drive the stock's biomass lower over time. Depending on the severity of any ACL overages, the resultant potential negative biological impact, if left unchecked, could eventually have negative consequences for the stock status of Gulf migratory group king mackerel.

Since king mackerel are directly targeted by gillnets in this fishery, negative biological effects in the form of discards are likely to be minimal for **Alternative 2** and **Preferred Alternative 3**, since fishermen do not typically discard king mackerel landed in gillnet gear. No data are available to analyze the number of fish that may fall out of the nets after being caught; therefore, the biological impact of this form of discard mortality cannot be characterized.

4.2.2 Direct and Indirect Effects on the Economic Environment

Alternative 1, no action, would continue to close the king mackerel gillnet component of the fishery when the gillnet ACL is projected to be met and would not affect the harvest or customary uses of king mackerel. Therefore, direct economic effects would not be expected to result from **Alternative 1**. However, should the absence of additional AMs lead to harvest overages, and if these overages negatively affect king mackerel stocks, indirect adverse economic effects would be expected to occur. The magnitude of these potential indirect economic effects would be determined by the severity of the adverse effects to the stocks.

Alternative 2 would set an ACT by applying a buffer ranging from 5% to 20% (**Options a-d**) to the king mackerel gillnet ACL. A larger buffer would result in proportionately lower ACT, reduced number of fishing days, and less ex-vessel revenues than a smaller buffer. From this perspective, the proposed options could be ranked from the least economic losses to the most economic losses according to the amount of ACT provided. Compared to **Alternative 1**, **Option c** of **Alternative 2** would be expected to result in the greatest economic losses. These economic losses are expected to be short-term. However, appreciable short-term economic losses could be expected to adversely impact the survival of commercial gillnet enterprises beyond the current year. Economic effects associated with improved resource health would be another factor to consider in the long term. If the proposed buffers and corresponding ACTs consistently prevent king mackerel harvest overages, long term improvements to the health of king mackerel stocks and associated positive economic effects would be expected to result from the implementation of ACTs.

Alternative 2, Option e, which would establish a carry-over provision for the unused portion of the king mackerel quota, would be expected to result in positive economic effects due to additional ex-vessel revenues derived from the amount of king mackerel carried over. However, a carry-over provision would also reduce the buffer between the ACL and ACT, thereby potentially increasing the likelihood of overages. However, overall landings of king mackerel are well below the stock ACL, so overages in the gillnet component would not be expected to significantly affect the status of the stock.

Preferred Alternative 3 would require king mackerel harvests in excess of the Florida West Coast Subzone commercial gillnet quota to be deducted in full from quota in the following season and adjust the ACT to reflect the buffer selected in **Alternative 2**. **Preferred Option a** and **Option b** would deduct the overages regardless of stock status and only if king mackerel are overfished, respectively. Economic effects that would be expected to result from a reduction in quota in response to overages would be determined by the probability of observing overages, the magnitude of the overage and reduction in quota during the following year, and resulting decreases in fishing opportunities and associated losses in ex-vessel revenues. Although the probabilities of observing overages associated with the range of buffers in **Alternative 2** are not known, it can be noted that greater buffers would be associated with a smaller likelihood of observing overages and would be expected to result in lower expected values of economic losses due to overage paybacks.

4.2.3 Direct and Indirect Effects on the Social Environment

Additional effects would not be expected from retaining the current AM for the gillnet fleet (**Alternative 1**), which consists of an in-season closure when the quota is reached or projected to be reached. Although the quota has not been exceeded in the last three years, the quota was exceeded once in the last four years (2011/-12 – 2014/-15), and, ignoring the most recent year, twice during the preceding four years (2010/-11 – 2013/-14; Table 1.1.1). To be consistent with National Standard (NS) 1 guidelines, AMs are being re-evaluated for the gillnet fleet to improve the likelihood of not exceeding the quota in the future. Furthermore, the gillnet fishermen themselves have requested more stringent AMs be adopted to accompany any trip limit increase (Action 1), which is supported by the fleet.

Currently, there is not a post-season quota overage adjustment in place, therefore there are no direct effects on fishermen from exceeding the quota, under **Alternative 1**. However, should the quota continue to be exceeded, more restrictive AMs may need to be evaluated to prevent further overages and to be consistent with NS1 guidelines. Establishing an ACT (**Alternative 2**) would be expected to reduce the likelihood of exceeding the ACL in-season, as the season would be closed when the ACT is reached or projected to be reached, rather than the ACL **(Alternative 1**).

Several options are provided for setting the ACT in **Alternative 2**. The smaller the ACT, the greater the buffer is between the ACT and ACL, and the less likely it would be for the ACL to be exceeded; under status quo, negative direct effects would not be expected as there is currently no quota overage adjustment, although negative indirect effects could result if the health of the stock is negatively affected by a quota overage, impacting the long-term stability of the stock. However, overall landings of king mackerel are well below the stock ACL, so overages in the gillnet component would not be expected to significantly affect the status of the stock. Conversely, selecting too large of a buffer could result in an in-season closure occurring too soon before the quota is met resulting in some negative effects to fishermen. The ACL would be less likely to be exceeded with each successive increase in the buffer from **Options a, b,** and **c,** respectively. At the same time, with each successive increase in the buffer, it would be less likely that the entire ACL is met. Because the quota has been exceeded once in the last four years, but not in the most recent three seasons, a smaller buffer, such as under **Option a**, could provide some additional protection to avoid a quota overage, while not requiring the season to close too early. **Option b** would increase the buffer by 5% compared with **Option a**, and **Option c** would increase the buffer 15% compared with **Option a**, resulting in an ACT that would be set at 20% below the ACL.

The effects of selecting **Option d** would be most similar to **Option a**, as both options would reduce the quota by 5%, although the proportional reduction from the ACL under **Option d** could change, depending on the uncertainty expressed in the future stock assessments. As it is unknown how uncertainty could change in the future, including the direction of any such change, the fixed 5% buffer (**Option a)** would be expected to be more beneficial for the social environment by remaining constant unless changed through subsequent rulemaking.

Should the quota not be met in a given year, **Alternative 2**, **Option e** would add the amount of uncaught quota to the following year's quota, up to the ACL. Direct social benefits would be expected to result from **Option e**, as lost opportunities to harvest fish in one year are added to the next year's quota. **Option e** may only be selected if one of **Alternative 2**, **Options a-d** is also selected as preferred. Thus, if the buffer selected among **Options 2a-2d** proves to be too large and the season is closed early (preventing the achievement of optimum yield), **Option 2e** would help mitigate these negative effects by increasing fishing opportunities in the following year

Preferred Alternative 3 proposes a quota overage adjustment, such that the ACL and ACT (if selected) would be reduced in the year following a quota overage, by the amount of the overage. Should a quota overage occur and the following year's ACL be reduced, some beneficial effects would be expected for the stock which would be expected to translate into indirect, long-term social benefits. If a quota overage is large, negative short-term social effects could result from

the overage adjustment and would be relative to the amount of quota that is subtracted. With **Preferred Option a**, the overage adjustment would be applied regardless of stock status and may have more negative social effects in the short-term, but potential benefits in the long-term if stock status is improved as a result. However, if the overage adjustment is made while the stock is healthy and the stock status is not improved as a result of the overage adjustment, then only negative social effects would be expected from the overage adjustment under **Preferred Option a**. Applying an overage adjustment only when the stock is overfished (**Option b)** would be expected to result in equivalent negative effects in the short term, compared with **Preferred Option a**, but these effects would be mitigated in the long-term by lowering the harvest limit when the stock is overfished.

4.2.4 Direct and Indirect Effects on the Administrative Environment

The monitoring and documentation needed to track landings for the gillnet component of the Florida West Coast Southern Subzone exist within current NMFS electronic reporting systems; however, improvements to these systems are being considered under Action 4 (Section 4.4). Currently, seafood dealers who purchase king mackerel are required to report electronically every day, regardless of whether they actually purchased king mackerel landed using gillnets on a given day. Due to quality controls in place to validate landings, NMFS may not receive validated landings from the gillnet component until up to 48 hours after those fish were landed at the dock. Because **Alternative 1** would not require additional rulemaking, it would have no effect on the administrative environment.

Alternative 2 and its associated options would establish an ACT at some level less than the ACL for the gillnet component of the Florida West Coast Southern Subzone. If an ACT was established in one of **Options a-d** of **Alternative 2,** any reduction which would be made for the ACL would concurrently be made for the ACT, thereby not causing any significant administrative burden. However, under **Alternative 2**, **Option c,** a direct effect on the administrative environment would be observed each time the ACT was adjusted to account for the carry-over of the previous year's remaining quota.

In the event that the Florida West Coast Southern Subzone gillnet ACL is exceeded, a reduction of the subsequent year's ACL by the amount of the overage would be implemented under **Preferred Alternative 3**. This overage adjustment would be implemented either regardless of stock status (**Preferred Option a**) or only if Gulf migratory group king mackerel have been declared overfished by NMFS (**Option b**). Adjusting for an overage of the quota would have direct negative effects on the administrative environment through additional rulemaking and recalculating the subsequent year's ACL. The act of adjusting the ACL and ACT (if implemented) for the gillnet component under **Preferred Alternative 3** would need to occur each time the ACL for the gillnet component is exceeded. Therefore, these alternatives would trigger an additional administrative burden to the Gulf of Mexico Fishery Management Council (Council) and NMFS to set the revised ACL (and ACT, under **Alternative 2**).

4.3 Action 3: Modify Electronic Reporting Requirements for Dealers Receiving King Mackerel Harvested by Gillnet in the Florida West Coast Southern Subzone

Alternative 1: No Action – Do not modify electronic reporting requirements for commercial king mackerel gillnet dealers. Dealers reporting purchases of king mackerel landed by the gillnet sector for the Florida West Coast Southern Subzone must submit forms daily to the electronic reporting system supported by the SEFSC by 6:00 a.m. local time. Until the commercial quota for the run-around gillnet component for Gulf migratory group king mackerel is reached, if no king mackerel were received, an electronic report so stating must be submitted for that day.

Alternative 2: Remove the requirement for *daily* electronic reporting by commercial king mackerel gillnet dealers. Dealers reporting purchases of king mackerel landed by the gillnet sector for the Florida West Coast Southern Subzone must submit forms *weekly* for trips landing between Sunday and Saturday to the electronic reporting system supported by the SEFSC by 11:59 p.m. local time on the following Tuesday. If no fish were received during a week, an electronic report so stating must be submitted for that reporting week.

Preferred Alternative 3: Remove the requirement for *daily electronic* reporting by commercial king mackerel gillnet dealers and replace that requirement with an alternative form of daily reporting. During the open fishing season, dealers reporting purchases of king mackerel landed by the gillnet sector for the Florida West Coast Southern Subzone must report *daily via the port agents, telephone, internet, or other similar means determined by NMFS. Prior to the beginning of each commercial king mackerel gillnet season, NMFS will provided written notice to king mackerel gillnet dealers if the reporting method and deadline change from the previous year, and will also post this information on the Southeast Regional Office website.* In addition, dealers reporting purchases of king mackerel landed by the gillnet sector for the Florida West Coast Southern Subzone must submit forms *weekly* from trips landing between Sunday and Saturday to the electronic reporting system supported by the SEFSC by 11:59 p.m. local time on the following Tuesday. If no fish were received during a reporting week, an electronic report so stating must be submitted for that reporting week.

4.3.1 Direct and Indirect Effects on the Physical and Biological Environments

Changing reporting requirements is an administrative action that should have no direct impact on the physical or biological environments. More timely quota monitoring through daily reporting may help to keep harvest within the ACL for the gillnet component of the coastal migratory pelagic (CMP) fishery. **Alternative 1** and **Preferred Alternative 3** retain the daily reporting requirement, and indirectly, would be slightly more beneficial to the biological environment than **Alternative 2**.

4.3.2 Direct and Indirect Effects on the Economic Environment

Alternative 1, no action, would continue to require the daily reporting of gillnet-caught king mackerel through the electronic monitoring system and would therefore not affect the harvest and customary uses of king mackerel. Consequently, **Alternative 1** would not be expected to result in direct economic effects. However, **Alternative 1** would continue to allow for a time lag in the transmittal of landings information to NMFS. If the time lags result in delaying needed management measures, e.g., a timely closure of the fishery, and adversely affects the king mackerel stocks, adverse indirect economic effects would be expected to result.

Alternative 2 would switch from daily to weekly electronic reporting but would not affect the harvest or other customary uses of king mackerel for gillnet fishermen. Therefore, **Alternative 2** would not be expected to result in direct economic effects. Although **Alternative 2** would be expected to ease the burden of dealers relative **Alternative 1**, it could exacerbate the delays in the transmittal of landings information to managers, potentially deferring the implementation of needed management measures such as closures and resulting in indirect adverse economic effects. **Preferred Alternative 3** would also switch from daily to weekly electronic reporting but would also establish a reporting system that would allow fishery managers to access gillnet-caught king mackerel data on a daily basis. **Preferred Alternative 3** would not affect the harvest or other customary uses of king mackerel for gillnet fishermen and would not be expected to result in direct economic effects. However, because it would facilitate the consistent and timely availability of landings data for gillnet-caught king mackerel, **Preferred Alternative 3** would be expected to result in indirect economic benefits stemming from the timely implementation of needed management measures such as season closures.

4.3.3 Direct and Indirect Effects on the Social Environment

Although additional effects would not be expected from retaining **Alternative 1,** the current requirement for daily submission of a landings report by 6:00 a.m. has been difficult for dealers to meet due to late night landings and long offloading times. This has led to delays in the processing of landings reports, making quota monitoring difficult. Given the very short season and daily harvest patterns of the king mackerel gillnet fleet, the problems with timely landings reporting under **Alternative 1** would be expected to continue, and the likelihood for a quota overage would persist.

Reducing the frequency of the reporting requirement for king mackerel gillnet dealers (**Alternative 2)** would make quota monitoring more difficult than at present (**Alternative 1**). Under **Alternative 2**, the likelihood of a quota overage would be expected to be greater than under **Alternative 1**, if not for the existing system of informal cooperation between gillnet dealers and NMFS to provide landings to managers directly.

Preferred Alternative 3 would continue to require a form of daily reporting, so dealers would not be negatively affected through increased requirements compared to **Alternative 1**, as dealers are currently required to report daily. Under **Preferred Alternative 3**, the daily reporting would be accomplished through similar means as the dealers are now providing informal landings reports to NFMS, a practice that began as a result of the delays experienced in the status quo

reporting system (**Alternative 1**). A weekly electronic report would be required, consistent with the current protocol for daily electronic reporting. Because dealers are currently employing both of these reporting methods (daily direct reports to NMFS and daily electronic reporting), no negative effects would be expected for dealers. Rather, the burden on dealers to report would be less than the burden currently undertaken by dealers, who at present, are both reporting daily landings directly to NMFS and submitting daily electronic reports.

4.3.4 Direct and Indirect Effects on the Administrative Environment

Daily reporting (**Alternative 1**) imposes a greater administrative burden than weekly reporting (**Alternative 2**), and daily and weekly combined (**Preferred Alternative 3**) is greater still. However, electronic reporting automates much of the data collection, easing the administrative burden. **Preferred Alternative 3** could include both electronic and manual data collection, but would provide the most timely and accurate way to monitor the ACL, and reduce the likelihood of overages. If a payback provision is established through Action 2, an overage would result in more of an administrative burden; therefore, **Preferred Alternative 3** could reduce the administrative impacts by reducing the chance of an overage. Because the gillnet season is very short, the administrative impacts of the three alternatives would actually be similar and minimal.

4.4 Action 4: Elimination of Inactive Commercial King Mackerel Gillnet Permits

Alternative 1: No Action – Maintain all current requirements for renewing commercial king mackerel gillnet permits.

Alternative 2: Allow commercial king mackerel gillnet permits to be renewed only if *average landings* during 2006-2015 were greater than one of the options listed below. Gillnet permits that do not qualify will be non-renewable and non-transferable.

Option a: 1 pound
Option b: 10,000 lbs
Option c: 25,000 lbs

Preferred Alternative 3: Allow commercial king mackerel gillnet permits to be renewed only if *landings for a single year* during 2006-2015 were greater than one of the options listed below. Gillnet permits that do not qualify will be non-renewable and non-transferable.

Preferred Option a: 1 pound
Option b: 10,000 lbs
Option c: 25,000 lbs

Alternative 4: Allow commercial king mackerel gillnet permits to be renewed only if *average landings* during 2011-2015 were greater than one of the options listed below. Gillnet permits that do not qualify will be non-renewable and non-transferable.

Option a: 1 pound
Option b: 10,000 lbs
Option c: 25,000 lbs

Alternative 5: Allow commercial king mackerel gillnet permits to be renewed only if *landings for a single year* during 2011-2015 were greater than one of the options listed below. Gillnet permits that do not qualify will be non-renewable and non-transferable.

Option a: 1 pound
Option b: 10,000 lbs
Option c: 25,000 lbs

4.4.1 Direct and Indirect Effects on the Physical and Biological Environments

This action would not directly affect the physical or biological environments. The indirect impacts would depend on the amount of effort attributable to the fishermen whose permits would be eliminated. The four permits that would be eliminated with **Option a** under **Alternative 2** or **Preferred Alternative 3**, or **Alternative 3, Option b**, have not been active for the last 10 years, and therefore no change in impacts to the physical and biological environments would be expected. The additional two permits that would be eliminated with **Option a** under **Alternative 4** or **5**, or **Alternative 5, Option b**, have not been active for the last five years, and therefore no change in impacts would be expected. If one of the other options is chosen, the fishermen affected likely harvested only minimal quantities of king mackerel with gillnets, and as such

their impact on the physical and biological environments would be minimal. The highest level of beneficial impacts would be expected with **Alternative 2, Option c,** which would eliminate the most permits. However, other participants may increase effort, negating those benefits.

4.4.2 Direct and Indirect Effects on the Economic Environment

Alternative 1, no action, would not affect commercial harvesters of king mackerel using gillnets and would not impact their ex-vessel revenues or operating costs. Therefore, **Alternative 1** would not be expected to result in economic effects. The remaining alternatives would establish eligibility criteria to retain gillnet king mackerel permits. Eligibility criteria under consideration are either based on minimum king mackerel landings in a single year (**Alternatives 3** and **5**) or on average landings during a given time interval (**Alternatives 2** and **4**). For each alternative, landings threshold of one pound (**Option a**), 10,000 lbs (**Option b**), and 25,000 lbs (**Option c**) are considered. The time intervals considered under **Alternatives 2-3** and under **Alternatives 4-5** are 2006 to 2015 and 2011 to 2015, respectively.

The elimination of inactive commercial king mackerel gillnet permits based on a landings threshold of one pound (**Option a** of **Alternatives 2-5**) would not be expected to result in economic effects other than the potential loss of opportunities to excluded permit holders, should they want to begin fishing with gillnets for king mackerel in the future. For a given time interval and a given eligibility landings threshold, alternatives based on average landings would be expected to be more restrictive, i.e., eliminate more permits, than alternatives based on average landings. For example, for the 2006-2015 time interval, a 10,000-lb landings threshold (**Option b**) would eliminate seven permits if eligibility is based on average landings (**Alternative 2**) but would only eliminate four permits based on a single year (**Preferred Alternative 3**). For the remaining vessels in the gillnet fleet, the elimination of some vessels based on a 10,000 or 25,000-lb landings threshold would result in additional ex-vessel revenues that would be derived from harvesting the portion of the king mackerel quota previously landed by the excluded vessels. It follows that comparable ex-vessel revenues would be lost by vessels excluded from the gillnet fishery. Greater amounts of king mackerel previously landed by excluded vessels would be expected to result in greater economic benefits to the remaining vessels (or losses to excluded vessels). From this perspective, **Option c** of **Alternative 2**, which would set the highest landings threshold and exclude the largest number of permit holders, would be expected to result in the greatest economic benefits to the remaining vessels (or losses to excluded vessels). However, vessels excluded from the gillnet fishery would be expected to make up for their ex-vessel revenue losses by increasing their harvests of other species; potentially resulting in undue pressure on other stocks. The added pressure on other stocks may cause adverse effects to these stocks and result in negative economic effects.

4.4.3 Direct and Indirect Effects on the Social Environment

Additional effects would not be expected from retaining **Alternative 1**, which would allow the 21 commercial king mackerel gillnet permits to remain active, renewable, and transferable under current requirements. Since the 2010/2011 fishing season, 14 or 15 vessels have actively fished for king mackerel with gillnets, leaving 6 or 7 vessels with gillnet permits inactive during these years. Although those gillnet permits were not used, the holders of the permits have continued to

renew them annually, suggesting the permit holder places value on retaining the permit. Although the specific circumstances and fishing practices of those permit holders who are not currently gillnetting for king mackerel is unknown, it is assumed that the holders of the latent permits may continue to renew their permits to maintain their access to re-enter the fishery at some point.

This action proposes to reduce the number of gillnet permits by only allowing their renewal if a specified threshold of landings (**Options a-c**) was made during a specified period of time (**Alternatives 2-5**). Depending on the selected alternative and option, a greater or lesser number of permits would be ineligible for renewal (Table 2.4.1).

Effects would differ depending on the permit holder's participation in king mackerel gillnet fishing. For those who renew but do not use their gillnet permit, direct effects would not be expected from prohibiting the renewal of latent permits as the permit holder is not actively engaged in king mackerel gillnet fishing. However, negative indirect effects would be expected for those who are unable to renew their permits but would have participated at a later time. Maintaining a limited access permit provides an alternate fishing strategy to the permit holder, by allowing them to maintain access and begin fishing should they need to switch between fishing activities and gear types due to regulatory changes or environmental conditions, for example. For active participants, eliminating latent permits would be expected to provide direct and indirect benefits, as their future participation in gillnet fishing and respective portion of the quota is made more secure. Thus, there is a tradeoff in effects where active gillnet participants would benefit from the removal of latent permits, while those holding but not using their permits would be negatively affected.

Generally, selecting the lowest threshold of landings (**Options a**, 1 lb) would affect renewal of the fewest permits, with more permits becoming ineligible for renewal under greater landings thresholds (**Options b** followed by **Options c**). Also in general, using landings from a single year (**Alternatives 3** and **5**) would affect renewal of fewer permits than using average landings over a series of years (**Alternatives 2** and **4**), which would eliminate a greater number of permits from renewal. Thus, for the proposed alternatives and options, **Option a** of **Alternative 2**, and **Preferred Option a** and **Option b** of **Alternative 3**,would render the fewest permits ineligible for renewal, while **Option c** of **Alternative 2** would affect the most permits (10 out of 21, or roughly 50%). The remaining alternatives and options would have intermediary effects, relative to the number of permits that become ineligible for renewal (Table 2.4.1).

4.4.4 Direct and Indirect Effects on the Administrative Environment

Eliminating permits as with **Alternatives 2-5** would slightly decrease the administrative burden relative to **Alternative 1** because fewer permit renewals would need to be processed each year. None of the alternatives should have any impact on the level of enforcement. For each alternative, the option with the most permits removed would be **Option c**, followed by **Option b**, and **Option c**. More eliminated permits would result in a lower administrative burden, but the difference in the number of permits eliminated among all alternatives is slight, so impacts would be minimal.

4.5 Cumulative Effects Analysis

As directed by the National Environmental Policy Act (NEPA), federal agencies are mandated to assess not only the indirect and direct effects, but cumulative effects of actions as well. NEPA defines cumulative effects as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). Cumulative effects can either be additive or synergistic. A synergistic effect occurs when the combined effects are greater than the sum of the individual effects. The following are some past, present, and future actions that could impact the environment in the area where the CMP fishery is prosecuted.

Past Actions

The Deepwater Horizon MC252 (DWH) oil spill in 2010 affected at least one-third of the Gulf from western Louisiana east to the Florida Panhandle and south to the Campeche Bank of Mexico. Millions of barrels of oil flowed from the ruptured wellhead (www.restorethegulf.gov). The impacts of the DWH oil spill on the physical environment may be significant and long-term. Oil was dispersed on the surface, and because of the heavy use of dispersants (both at the surface and at the wellhead), oil was also suspended within the water column (Camilli et al. 2010; Kujawinski et al. 2011). Floating and suspended oil washed onto coastlines in several areas of the Gulf along with non-floating tar balls. Suspended and floating oil degrades over time, but tar balls persist in the environment and can be transported hundreds of miles (Goodman 2003).

Surface or submerged oil during the DWH oil spill event could have restricted the normal processes of atmospheric oxygen mixing into and replenishing oxygen concentrations in the water column affecting the long-standing hypoxic zone located west of the Mississippi River on the Louisiana continental shelf (NOAA 2010). Microbial biodegradation of hydrocarbons in the water column may have occurred without substantial oxygen drawdown (Hazen et al. 2010). Residence time of hydrocarbons in sediments is also a concern. The indices developed for past oil spills (Harper 2003) and oil spill scenarios (Stjernholm et al. 2011) such as the "oil residence index" do not appear to have been used during the assessment of the DWH oil spill.

The cumulative effects from the DWH oil spill and response may not be known for several years. The highest concern is that the oil spill may have impacted the spawning success of species that spawn in the summer months, either by reducing spawning activity or by reducing survival of the eggs and larvae. The oil spill occurred during spawning months for every species in the CMP FMP; however, most species have a protracted spawning period that extends beyond the months of the oil spill. A 2014 study (Incardona et al 2014), embryos of bluefin tuna, yellowfin tuna, and amberjack exposed to environmentally realistic levels of hydrocarbons showed defects in heart function. Other studies of the effects of hydrocarbon are ongoing.

If eggs and larvae were affected, impacts on harvestable-size king mackerel will begin to be seen when the 2010 year class becomes large enough to enter the fishery and be retained. The impacts would be realized as reduced fishing success and reduced spawning potential. King

mackerel mature at age 3-4; therefore, a year class failure in 2010 could have been observed as early as 2013 or 2014. No data were available which demonstrated any such potential for year-class failure during the data scoping process for Southeast Data Assessment and Review (SEDAR) 38. Any new data generated since the completion of SEDAR 38 would need to be taken into consideration in the next SEDAR assessment update of king mackerel.

Participation in and the economic performance of the CMP fishery addressed in this document have been affected by a combination of regulatory, biological, social, and external economic factors. Regulatory measures have obviously affected the quantity and composition of harvests of king mackerel, through the various size limits, seasonal restrictions, trip or bag limits, and quotas. In addition to a complex boundary and quota system, the CMP fishery also exists under regulations on bag limits, size limits, trip limits, and gear restrictions.

Amendment 20B, implemented in March 2015, allowed transit of vessels with king mackerel through areas closed to king mackerel fishing. This will allow gillnet vessels docked north of the Florida West Coast Southern Subzone to land king mackerel at their homeport rather than transporting south to a more distant port in the Florida Keys. This should improve safety at sea, and increase efficiency for some king mackerel gillnet vessels.

The commercial king mackerel permit, king mackerel gillnet permit, and the Gulf Charter/Headboat CMP permit are all under limited entry permit systems. New participation in the king mackerel commercial fishery and the for-hire CMP sector in the Gulf require access to additional capital and an available permit to purchase, which may limit opportunities for new entrants. The gillnet permits can only be transferred to an immediate family member. Additionally, almost all fishermen or businesses with one of the limited entry permits also hold at least one (and usually multiple) additional commercial or for-hire permit to maintain the opportunity to participate in other fisheries. Commercial fishermen, for-hire vessel owners and crew, and private recreational anglers commonly participate in multiple fisheries throughout the year, and king mackerel gillnet fishermen rely on lobster, stone crab, or other species outside of the short gillnet season. Even within the CMP fishery, effort can shift from one species to another due to environmental, economic, or regulatory changes. Overall, changes in management of one species in the CMP fishery can impact effort and harvest of another species (in the CMP fishery or in another fishery) because of multi-fishery participation that is characteristic in the Gulf and South Atlantic regions, but particularly for king mackerel gillnetters.

Biological forces that either motivate certain regulations or simply influence the natural variability in fish stocks have likely played a role in determining the changing composition of the king mackerel gillnet component of the CMP fishery. Additional factors, such as changing career or lifestyle preferences, stagnant to declining prices due to imports, increased operating costs (gas, ice, insurance, dockage fees, etc.), and increased waterfront/coastal value leading to development pressure for other than fishery uses have impacted both the commercial and recreational fishing sectors. In general, the regulatory environment for all fisheries has become progressively more complex and burdensome, increasing the pressure on economic losses, business failure, occupational changes, and associated adverse pressures on associated families, communities, and businesses. Some reverse of this trend is possible and expected through management. However, certain pressures would remain, such as total effort and total harvest

considerations, increasing input costs, import induced price pressure, and competition for coastal access.

Present Actions

No actions are presently being implemented that would impact the CMP fishery.

Reasonably Foreseeable Future Actions

The following are regulatory actions affecting the CMP fishery that may be implemented within the next year. Amendment 26 will include actions to increase the ACLs for king mackerel, including the gillnet ACL. The amendment will also consider reallocation among Gulf zones and between sectors. These actions are based on results of an assessment of king mackerel completed in 2014 (SEDAR 38). The Council has begun development of an amendment to establish separate king mackerel permits for the Gulf and South Atlantic.

The Environmental Protection Agency's climate change webpage (http://www.epa.gov/climatechange/) provides basic background information on measured or anticipated effects from global climate change. A compilation of scientific information on climate change can be found in the United Nations Intergovernmental Panel on Climate Change's Fourth Assessment Report (Solomon et al. 2007). Those findings are incorporated here by reference and are summarized. Global climate change can affect marine ecosystems through ocean warming by increased thermal stratification, reduced upwelling, sea level rise, and through increases in wave height and frequency, loss of sea ice, and increased risk of diseases in marine biota. Decreases in surface ocean pH due to absorption of anthropogenic carbon dioxide emissions may impact a wide range of organisms and ecosystems. These influences could affect biological factors such as migration, range, larval and juvenile survival, prey availability, and susceptibility to predators. At this time, the level of impacts cannot be quantified, nor is the time frame known in which these impacts would occur. These climate changes could have significant effects on southeastern fisheries; however, the extent of these effects is not known at this time (IPCC 2014).

In the southeast, general impacts of climate change have been predicted through modeling, with few studies on specific effects to species. Warming sea temperature trends in the southeast have been documented, and animals must migrate to cooler waters, if possible, if water temperatures exceed survivable ranges (Needham et al. 2012). King mackerels are migratory, and may shift their distribution over time to account for the changing temperature regime. However, no studies have shown such a change yet. Higher water temperatures may also allow invasive species to establish communities in areas they may not have been able to survive previously. An area of low oxygen, known as the dead zone, forms in the northern Gulf each summer, and has been increasing in recent years. Climate change may contribute to this increase by increasing rainfall that in turn increases nutrient input from rivers. This increased nutrient load causes algal blooms that, when decomposing, reduce oxygen in the water (Needham et al. 2012; Kennedy et al. 2002). Other potential impacts of climate change in the southeast include increases in hurricanes, decreases in salinity, altered circulation patterns, and sea level rise. The combination of warmer water and expansion of salt marshes inland with sea-level rise may increase

productivity of estuarine-dependent species in the short term. However, in the long term, this increased productivity may be temporary because of loss of fishery habitats due to wetland loss (Kennedy et al. 2002). Actions from this amendment are not expected to significantly contribute to climate change through the increase or decrease in the carbon footprint from fishing.

Hurricane season is from June 1 to November 30, and accounts for 97% of all tropical activity affecting the Atlantic Basin. These storms, although unpredictable in their annual occurrence, can devastate areas when they occur. However, while these effects may be temporary, those fishing-related businesses whose profitability is marginal may go out of business if a hurricane strikes. King mackerel gillnet fishing occurs primarily in winter, and is unlikely to be affected by hurricanes; however, vessels may remain at ports in south Florida throughout the year.

The cumulative social and economic effects of past, present, and future amendments may be described as limiting fishing opportunities in the short-term, with some exceptions of actions that alleviate some negative social and economic impacts. The intent of these actions is to improve prospects for sustained participation in the respective fisheries over time and the proposed actions in this amendment are expected to result in some important long-term benefits to the commercial fishing fleet, as well as fishing communities and associated businesses. The proposed changes in management for CMP species will contribute to changes in the fishery within the context of the current economic and regulatory environment at the local and regional level.

Monitoring

The effects of the proposed action are, and will continue to be, monitored through collection of landings data by NMFS, stock assessments and stock assessment updates, life history studies, economic and social analyses, and other scientific observations. Commercial data are collected through trip ticket programs, port samplers, and logbook programs.

The proposed action relates to the harvest of an indigenous species in the Gulf and Atlantic, and the activity being altered does not itself introduce non-indigenous species, and is not reasonably expected to facilitate the spread of such species through depressing the populations of native species. Additionally, it does not propose any activity, such as increased ballast water discharge from foreign vessels, which is associated with the introduction or spread on non-indigenous species.

CHAPTER 5: REGULATORY IMPACT REVIEW

5.1 Introduction

The National Marine Fisheries Service (NMFS) requires a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest. The RIR does three things: 1) it provides a comprehensive review of the level and incidence of impacts associated with a proposed or final regulatory action; 2) it provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives that could be used to solve the problem; and, 3) it ensures that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost-effective way. The RIR also serves as the basis for determining whether the regulations are a "significant regulatory action" under the criteria provided in Executive Order (E.O.) 12866. This RIR analyzes the impacts this action would be expected to have on the Gulf of Mexico coastal migratory pelagic fishery.

5.2 Problems and Objectives

The problems and objectives addressed by this action are discussed in Section 1.2.

5.3 Description of Fisheries

A description of the coastal migratory pelagic fishery is provided in Sections 3.1 and 3.5.

5.4 Impacts of Management Measures

5.4.1 Modify the Commercial King Mackerel Gillnet Trip Limit

A detailed analysis of the economic effects expected to result from this action is provided in Section 4.1. The following discussion summarizes the key points of this analysis.

Preferred Alternative 3 would increase the daily trip limit for the gillnet component of the commercial king mackerel fishery to 45,000 lbs. Trip limit increases would be expected to result in greater king mackerel harvests per vessel per trip, resulting in increased ex-vessel revenues per trip from king mackerel and possibly profits. However, trip limit increases would be expected to decrease the number of fishing days currently needed to harvest the gillnet portion of the king mackerel quota. Fewer fishing days would concentrate the same amount of king mackerel over a smaller time interval, possibly depressing the ex-vessel price for king mackerel and canceling out some of the revenue increases expected from higher trip limits. Net economic effects expected to result from **Preferred Alternative 3** would be determined by the relative magnitude of the potential increases in ex-vessel revenues and possible decreases in ex-vessel prices discussed in this section. These economic effects cannot be quantified at this time due to data limitations.

5.4.2 Modify Accountability Measures for the Gillnet Component of the Commercial King Mackerel Fishery

A detailed analysis of the economic effects expected to result from this action is provided in Section 4.2. The following discussion summarizes the key points of this analysis. **Preferred Alternative 3, Preferred Option a** would require king mackerel harvests in excess of the Florida West Coast Subzone commercial gillnet quota to be deducted in full from quota in the following season, regardless of stock status. The expected value of economic effects that would result from a reduction in quota in response to overages would be determined by the probability of observing overages, the magnitude of the overage and the reduction in quota during the following year, and resulting decreases in fishing opportunities and associated losses in ex-vessel revenues. The overages in one year may have a positive effect, but the quota reduction in the next year could have a negative effect.

5.4.3 Modify Electronic Reporting Requirements for Dealers Receiving King Mackerel Harvested by Gillnet in the Florida West Coast Southern Subzone

A detailed analysis of the economic effects expected to result from this action is provided in Section 4.3. The following discussion summarizes the key points of this analysis. **Preferred Alternative 3** would switch from daily electronic to weekly electronic reporting but would modify the daily reporting system that would allow fishery managers to access gillnet-caught king mackerel data on a daily basis. **Preferred Alternative 3** would not affect the harvest or other customary uses of king mackerel for gillnet fishermen or most of the practices of king mackerel dealers, and would not be expected to result in direct economic effects. However, because it would facilitate the consistent and timely availability of landings data for gillnet-caught king mackerel, **Preferred Alternative 3** would be expected to result in indirect economic benefits stemming from the timely implementation of needed management measures such as season closures.

5.4.4 Elimination of Inactive Commercial King Mackerel Gillnet Permits

A detailed analysis of the economic effects expected to result from this action is provided in Section 4.4. The following discussion summarizes the key points of this analysis.
To retain a gillnet mackerel permit, **Preferred Alternative 3, Preferred Option a** would require minimum king mackerel landings of one pound in a single year between 2006 and 2015.
The elimination of inactive commercial king mackerel gillnet permits based on a landings threshold of one pound would not be expected to result in economic effects other than the potential loss of opportunities to excluded permit holders, should they want to enter the gillnet king mackerel fishery in the future.

5.5 Public and Private Costs of Regulations

The preparation, implementation, enforcement, and monitoring of this or any federal action involves the expenditure of public and private resources which can be expressed as costs associated with the regulations. Costs associated with this action include:

Council costs of document preparation, meetings, public hearings, and information dissemination……$55,000

NMFS administrative costs of document preparation, meetings and review ….....$35,000

TOTAL ….....$90,000

The estimate provided above does not include any law enforcement costs. Any enforcement duties associated with this action would be expected to be covered under routine enforcement costs rather than an expenditure of new funds.

5.6 Determination of Significant Regulatory Action

Pursuant to E.O. 12866, a regulation is considered a "significant regulatory action" if it is likely to result in: 1) an annual effect of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; 2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; 3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights or obligations of recipients thereof; or 4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this executive order. Based on the information provided above, this action has been determined to not be economically significant for the purposes of E.O. 12866.

CHAPTER 6: REGULATORY FLEXIBILITY ACT ANALYSIS

6.1 Introduction

The purpose of the Regulatory Act Analysis (RFA) is to establish a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure such proposals are given serious consideration. The RFA does not contain any decision criteria; instead the purpose of the RFA is to inform the agency, as well as the public, of the expected economic impacts of various alternatives contained in the fishery management plan (FMP) or amendment (including framework management measures and other regulatory actions) and to ensure the agency considers alternatives that minimize the expected impacts while meeting the goals and objectives of the FMP and applicable statutes.

The RFA requires agencies to conduct a Regulatory Flexibility Act Analysis (RFAA) for each proposed rule. The RFAA is designed to assess the impacts various regulatory alternatives would have on small entities, including small businesses, and to determine ways to minimize those impacts. An RFAA is conducted to primarily determine whether the proposed action would have a "significant economic impact on a substantial number of small entities." The RFAA provides: 1) A description of the reasons why action by the agency is being considered; 2) a succinct statement of the objectives of, and legal basis for, the proposed rule; 3) a description and, where feasible, an estimate of the number of small entities to which the proposed rule will apply; 4) a description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements of the report or record; 5) an identification, to the extent practicable, of all relevant federal rules, which may duplicate, overlap, or conflict with the proposed rule; 6) a description and estimate of the expected economic impacts on small entities; and 7) an explanation of the criteria used to evaluate whether the rule would impose "significant economic impacts".

6.2 Statement of the need for, objective of, and legal basis for the proposed actions

The need for and objective of this proposed action are provided in Chapter 1. The purpose of this action is to modify trip limits, accountability measures (AM), electronic reporting requirements, and gillnet endorsements for commercial king mackerel landed by gillnet in the Gulf of Mexico (Gulf). The need for this action is to increase efficiency, stability, and accountability, and reduce potential regulatory discards in the commercial king mackerel gillnet component of the fishery.

6.3 Description and estimate of the number of small entities to which proposed actions would apply

This proposed rule is expected to directly affect commercial fishermen with valid or renewable federal Gulf king mackerel endorsements and dealers purchasing king mackerel from vessels with king mackerel gillnet endorsements. The Small Business Administration established size criteria for all major industry sectors in the U.S. including commercial finfish harvesters (NAICS code 114111), seafood dealers/wholesalers (NAICS code 424460), and seafood processors (NAICS code 311710). A business primarily involved in finfish harvesting is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual receipts not in excess of $20.5 million for all its affiliated operations worldwide. A business involved in seafood purchasing and processing is classified as a small business based on either employment standards or revenue thresholds. A business primarily involved in seafood processing is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual employment not in excess of 500 employees for all its affiliated operations worldwide. For seafood dealers/wholesalers, the other qualifiers apply and the employment threshold is 100 employees. The revenue threshold for seafood dealers/wholesalers/processors is $7.5 million.

The commercial king mackerel permit is a limited access permit, which can be transferred or sold, subject to certain conditions. From 2008 through 2014, the number of commercial king mackerel permits decreased from 1,619 in 2008 to 1,478 in 2014, with an average of 1,534 during this period. As of April 30, 2015, there were 1,342 valid or renewable commercial king mackerel permits. The king mackerel gillnet permit, which is an endorsement attached to a commercial king mackerel permit, is also a limited access permit. Its transferability is more restrictive than that for the commercial king mackerel permit. Specifically, it may be transferred only to another vessel owned by the same entity or to an immediate family member. From 2008 through 2014, there were an average of 23 king mackerel gillnet endorsements. At present, there are 21 valid or renewable king mackerel gillnet endorsements. Beginning in 2014, a federal dealer permit has been required to purchase king mackerel (among other species) harvested in the Gulf or South Atlantic. This dealer permit is an open access permit, and as of May 4, 2015, there were 325 such dealer permits.

Of the 21 vessels with king mackerel gillnet endorsements, 11 to 15 vessels landed king mackerel in 2006-2014, or an average of 13 vessels landed king mackerel. These vessels generated a combined average of $544,981 in total ex-vessel revenues. These vessels, together with those that did not catch king mackerel, generated average revenues of $427,258 from other species during 2006-2014. Averaging total revenues across all 21 vessels, the average total revenue per vessel was $46,297 annually.

From 2008 through 2015, the number of dealers that purchased king mackerel from gillnet fishermen ranged from 4 to 6, with an average of 5. On average (2008-2015), these dealers purchased approximately $570,105 (2014 dollars) worth of king mackerel from gillnet fishermen, or an average of $114,021 per dealer. These dealers also purchased other species from Gulf and South Atlantic commercial fishermen, but the total amount cannot be estimated

due to the absence of adequate information. The estimated average annual revenue from seafood purchases for dealers with a Gulf and South Atlantic federal dealer permit is approximately $546,000.

Based on the revenue figures above, all federally permitted vessels and dealers expected to be directly affected by this proposed rule are determined for the purpose of this analysis to be small business entities.

6.4 Description of the projected reporting, record-keeping and other compliance requirements of proposed actions, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for the preparation of the report or records

In general, the proposed rule is not expected to change current reporting, record-keeping and other compliance requirements on vessel owners. However, the proposed rule would remove the dealer daily reporting requirement to the electronic monitoring system, but continue to require daily reporting by some other means as developed by NMFS. This could involve reverting to the port agent reports or some more direct method of reporting to managers. NMFS would work with dealers to establish a system that will minimize the burden to the dealers as well as the time for landings to reach managers. Dealers would still have to report king mackerel gillnet landings through the electronic monitoring system weekly, when they report other species. The weekly reporting would ensure the king mackerel reports are included in the Commercial Landings Monitoring database maintained by the Southeast Fisheries Science Center.

6.5 Identification of all relevant federal rules, which may duplicate, overlap or conflict with the proposed action

No duplicative, overlapping, or conflicting Federal rules have been identified with this proposed rule.

6.6 Significance of economic impacts on a substantial number of small entities

Substantial number criterion

This proposed action would be expected to directly affect all 21 vessels with valid or renewable king mackerel gillnet endorsements. In addition, this proposed action would affect 4 to 6 dealers that historically purchase king mackerel from vessels with king mackerel gillnet endorsements. The directly affected business entities would account for approximately 1.4% of total commercial king mackerel permits and 1.8% of total dealer permits. However, the commercial king mackerel gillnet sector is a unique sector with its own annual quota and season. Moreover, the number of dealers that purchase king mackerel from vessels with king mackerel gillnet

endorsements has historically been few. The proposed action would then directly affect most if not all of the small entities associated with the gillnet segment of the commercial king mackerel sector.

Significant economic impacts criterion

The outcome of "significant economic impact" can be ascertained by examining two issues: disproportionality and profitability.

Disproportionality: Do the regulations place a substantial number of small entities at a significant competitive disadvantage to large entities?

All entities that are expected to be affected by this proposed rule are considered small entities, so the issue of disproportional effects on small versus large entities does not presently arise.

Profitability: Do the regulations significantly reduce profit for a substantial number of small entities?

The proposed rule would increase the daily trip limit from 25,000 lbs to 45,000 lbs, modify the AM by establishing a payback provision equal to the amount of overage regardless of stock status, remove the requirement for daily electronic reporting by commercial king mackerel gillnet dealers and replace it with an alternative form of daily reporting, and allow commercial king mackerel gillnet permits to be renewed only if landings for a single year during 2006-2015 were greater than one pound.

Increasing the trip limit would be expected to result in greater king mackerel harvests per vessel per trip. This would directly translate into increased ex-vessel revenues from king mackerel per trip and possibly profits, assuming relatively stable operating costs per trip. However, trip limit increases would be expected to decrease the already limited number of fishing days currently needed to harvest the gillnet portion of the king mackerel quota. Relative to status quo, fewer fishing days would concentrate the same amount of king mackerel over a smaller time interval, possibly depressing the ex-vessel price for king mackerel and canceling out some of the revenue increases expected to result from higher trip limits. Whether the reduction in revenues due to price depression would offset revenue increases from a higher trip limit cannot be determined with available information.

In the last nine fishing years (2006/2007-2014/2015), the king mackerel gillnet quota was exceeded four times although this has not been the case in the last three years. Under the proposed trip limit increase, however, there is some possibility that the quota would be exceeded, and thus the overage provision would apply with the following year's quota being reduced by the full amount of the overage. The amount of overage would partly depend on how effectively the landings could be monitored. Regardless of the amount of overage and reduction in the following year's quota, the net economic effects of the overage provision could be negative, neutral, or positive, at least over a two-year period. Revenues and profits would be relatively higher if an overage occurred but the following year's revenues and profits would also be lower with a reduced quota. It cannot be ascertained which of the three possibilities would occur.

Replacing the requirement for daily electronic reporting by commercial king mackerel gillnet dealers with an alternative form of daily reporting would not likely impose an additional reporting burden on dealers. The replacement reporting requirement would likely be similar to what had been done in previous years or it could be better in terms of effectively monitoring the amount of landings without being more burdensome than the daily electronic reporting requirement. NMFS would work with the dealers in developing such a reporting system to ensure timely reporting of landings at no greater burden to the dealers.

The elimination of inactive commercial king mackerel gillnet permits based on a landings threshold of one pound would not be expected to result in economic effects other than the potential loss of opportunities to excluded permit holders, should they want to re-enter the gillnet king mackerel harvest sector in the future. Of the 21 vessels with valid or renewable gillnet permits, 4 vessels would not meet the eligibility requirement. These 4 vessels have not landed any king mackerel using gillnet from 2001 through 2015, and thus have not generated any revenues from such activity. Disallowing these 4 vessels to renew their gillnet permits would have no short-term effects on their revenues and profits. It may also be expected that the remaining vessels in the fishery would not experience revenue increases as a result of eliminating 4 vessels in the fishery. Despite not having used gillnets for fishing king mackerel, those 4 permit owners have continued to renew their gillnet permits. To an extent, their decision not to exercise their option to re-enter the fishery in the last 15 years may indicate that they have not undertaken substantial investments, e.g., in boats and gear, in preparation for their re-entry into the fishery. The gillnet permit cost they have expended, which is currently $10 per gillnet permit, is relatively small. There is a good possibility that if disallowed to re-enter the king mackerel gillnet fishery they would not lose any significant investments. They still would stand to forgo future revenues from the king mackerel gillnet fishery. Those remaining in the fishery would not face the possibility of additional competition from those eliminated vessels.

6.7 Description of significant alternatives to proposed actions and discussion of how alternatives attempt to minimize economic impacts on small entities

Four alternatives, including the preferred alternative, were considered for modifying the commercial king mackerel gillnet daily trip limit. The first alternative, the no action alternative, would retain the 25,000 lbs trip limit. This alternative would maintain the same economic benefits per trip but at levels lower than those afforded by the preferred alternative. The second alternative, which would increase the trip limit to 35,000 lbs, would yield lower economic benefits per trip than the preferred alternative. The third alternative would remove the trip limit, and thus would be expected to yield higher economic benefits per trip than the preferred alternative. However, it cannot be determined whether the benefits per trip would translate into total benefits because prices, and thus revenues, would tend to be affected by the amount of landings over a certain time period. This price effect would tend to offset any revenue effects from trip limit changes. That is, larger landings over a shorter period, as in the preferred or no trip limit alternatives, would tend to be associated with lower prices, just as smaller landings over a longer period, as in the status quo or 35,000 lb trip limit alternatives, would tend to be

associated with higher prices. The net economic effects of all these alternatives cannot be determined.

Three alternatives, including the preferred alternative, were considered for modifying the AM for the gillnet component of the king mackerel fishery. The first alternative, the no action alternative, would retain the in-season AM which would close the Florida West Coast Subzone commercial king mackerel fishery when the quota is met or projected to be met. This alternative would not alter the level of economic benefits from the harvest of king mackerel by commercial gillnet fishermen. The second alternative would establish an annual catch target (ACT), which is the quota, with various options. The first three options would establish an ACT equal to 95%, 90%, or 80% of the annual catch limit (ACL); the fourth option would set the ACT according to the Gulf of Mexico Fishery Management Council's ACL/ACT control rule (currently equal to 95% of the ACL); and the fifth option, which applies only if an ACT is established, would allow the amount of landings under the quota to be added to the following year's quota but the total quota could not exceed the ACL. The first four options would result in lower short-term revenues and profits than the preferred alternative by restricting the amount of harvest to less than the ACL. The fifth option has the potential to yield higher revenues than the preferred alternative, because any unused quota would generate additional revenues in the following year. The absence of an overage provision, however, would have adverse consequences on the status of the stock. The third alternative, with two options, would establish a payback provision. The first option is the preferred alternative, which would establish a payback provision regardless of the status of the stock, while the second option would establish a payback provision only if the Gulf migratory group king mackerel stock is overfished. Because the Gulf migratory group king mackerel stock is not overfished, the two options would yield the same economic results in the short term.

Three alternatives, including the preferred alternative, were considered for modifying the electronic reporting requirements for dealers receiving king mackerel harvested by gillnets. The first alternative, the no action alternative, would retain the daily electronic reporting requirements. This alternative would be more burdensome for dealers than the preferred alternative because electronic reporting would be daily instead of weekly. At the same time, this alternative would not provide timely reporting of landings because some landings reports could not be processed until the next day. The second alternative would remove the daily electronic reporting requirement but would require a weekly electronic reporting instead. While this is less burdensome to dealers, it would not allow timely reporting of landings especially that the king mackerel gillnet season generally lasts for only a few days.

Five alternatives, including the preferred alternative, were considered for eliminating inactive commercial king mackerel gillnet permits. The first alternative, the no action alternative, would maintain all current requirements for renewing king mackerel gillnet permits. This alternative would allow all 21 endorsement holders to renew their gillnet permits. The second alternative, with three options, would allow renewal of king mackerel gillnet permits if average landings during 2006-2015 exceed 1 lb, 10,000 lbs, or 25,000 lbs. The third alternative, with three options, would allow renewal of king mackerel gillnet permits if landings for a single year during 2006-2015 exceed 1 lb, 10,000 lbs, or 25,000 lbs. This alternative with a landings threshold of 1 lb is the preferred alternative. The fourth alternative, with three options, would allow renewal of

king mackerel gillnet permits if average landings during 2011-2015 exceed 1 lb, 10,000 lbs, or 25,000 lbs. The fifth alternative, with three options, would allow renewal of king mackerel gillnet permits if landings for a single year during 2011-2015 exceed 1 lb, 10,000 lbs, or 25,000 lbs. All these alternatives, except the no action alternative, would eliminate the same or greater number of vessels than the preferred alternative.

CHAPTER 7. LIST OF AGENCIES, ORGANIZATIONS AND PERSONS CONSULTED

List of Preparers:

Name	Expertise	Responsibility	Agency
Ryan Rindone	Fishery Biologist	Co-Team Lead – Amendment development, introduction, effects analyses	GMFMC
Susan Gerhart	Fishery Biologist	Co-Team Lead – Amendment development, effects analysis, and cumulative effects	SERO-SF
Ava Lasseter	Anthropologist	Social analyses	GMFMC
Mike Jepson	Anthropologist	Social environment and environmental justice	SERO-SF
Assane Diagne	Economist	Economic analysis and Regulatory Impact Review	GMFMC
Tony Lamberte	Economist	Economic environment and Regulatory Flexibility Act Analysis	SERO-SF
Mara Levy	Attorney	Legal review	NOAA GC
Iris Lowery	Attorney	Legal review	NOAA GC
Adam Bailey	Technical Writer Editor	Regulatory writer	SERO-SF
Noah Silverman	Natural Resource Management Specialist	NEPA review	SERO
Matthew Lauretta	Biologist	Biological review	SEFSC
Christopher Liese	Economist	Social/economic review	SEFSC
David Dale, NMFS/HC	EFH Specialist	Habitat review	SERO-HC
Jennifer Lee	Protected Resources Specialist	Protected resources review	SERO-PR
Carrie Simmons	Fishery biologist	Reviewer	GMFMC
Steve Branstetter	Fishery biologist	Reviewer	SERO-SF

GMFMC = Gulf of Mexico Fishery Management Council, SERO = NMFS Southeast Regional Office, SF = Sustainable Fisheries Division, PR = Protected Resources Division, HC = Habitat Conservation Division, GC = General Counsel, SEFSC = NMFS Southeast Fishery Science Center

The following have or will be consulted:

National Marine Fisheries Service

- Southeast Fisheries Science Center
- Southeast Regional Office
- Protected Resources
- Habitat Conservation
- Sustainable Fisheries

NOAA General Counsel
Environmental Protection Agency
United States Coast Guard
Texas Parks and Wildlife Department
Alabama Department of Conservation and Natural Resources/Marine Resources Division
Louisiana Department of Wildlife and Fisheries
Mississippi Department of Marine Resources
Florida Fish and Wildlife Conservation Commission

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APPENDIX A. CONSIDERED BUT REJECTED ACTIONS AND ALTERNATIVES

Action 1: Modify the Commercial King Mackerel Gillnet Trip Limit

Alternative 3: Establish a buffer to the trip limit to account for landings uncertainty. This buffer can be in addition to the trip limit. Fishermen may profit from the sale of all king mackerel landed up to the trip limit, but will not be considered to have exceeded the trip limit unless the selected buffer has also been exceeded. Fishermen may not profit from the sale of any fish in excess of the trip limit. All king mackerel landed by vessels with gillnet permits, regardless of whether the trip limit has been exceeded, will count against that year's Gulf Florida West Coast Southern Subzone gillnet quota.

Option 3a: Establish a 5% buffer
Option 3b: Establish a 10% buffer
Option 3c: Establish a 20% buffer

Rationale: *The Gulf Council chose to consider a quota buffer in the form of an annual catch target as opposed to the method stated in Alternative 3 of Action 1. Additionally, the Gulf Council thought that a buffer was described above would constitute a trip limit increase up to the amount allowed beyond the trip limit by the buffer*.

Action 2: Modify Accountability Measures for the Gillnet Component of the Commercial King Mackerel Fishery

Alternative 2: Establish a payback provision for the gillnet component of the commercial king mackerel fishery, whereby the weight of any fish landed by a vessel with a gillnet permit in excess of the trip limit is deducted from the following year's Florida West Coast Southern Subzone Gillnet ACL. The NMFS will monitor the landings and make any necessary adjustments to the subsequent year's Florida West Coast Southern Subzone Gillnet ACL. The ACT (if established) will be adjusted to reflect the previously established percent buffer.

Rationale: *The Gulf Council chose to no longer consider this alternative since a buffer in the trip limit was not selected, making this alternative untenable. Also, the essence of this alternative, less the association with the buffer, has already been characterized in another alternative in the same action*.

APPENDIX B. OTHER APPLICABLE LAW

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (16 U.S.C. 1801 et seq.) provides the authority for fishery management in federal waters of the Exclusive Economic Zone. However, fishery management decision-making is also affected by a number of other federal statutes designed to protect the biological and human components of U.S. fisheries, as well as the ecosystems that support those fisheries. Major laws affecting federal fishery management decision-making include the National Environmental Policy Act (sections throughout the document), Endangered Species Act (Section 3.3.2), Marine Mammal Protection Act (Section 3.3.2), E.O. 12866 (Regulatory Planning and Review, Chapter 5) and E.O. 12898 (Environmental Justice, Section 3.5.5). Other applicable laws are summarized below.

Administrative Procedure Act

All federal rulemaking is governed under the provisions of the Administrative Procedure Act (APA) (5 U.S.C. Subchapter II), which establishes a "notice and comment" procedure to enable public participation in the rulemaking process. Under the APA, National Marine Fisheries Service (NMFS) is required to publish notification of proposed rules in the *Federal Register* and to solicit, consider, and respond to public comment on those rules before they are finalized. The APA also establishes a 30-day waiting period from the time a final rule is published until it takes effect.

Coastal Zone Management Act

Section 307(c)(1) of the federal Coastal Zone Management Act of 1972 (CZMA), as amended, requires federal activities that affect any land or water use or natural resource of a state's coastal zone be conducted in a manner consistent, to the maximum extent practicable, with approved state coastal management programs. The requirements for such a consistency determination are set forth in NOAA regulations at 15 C.F.R. part 930, subpart C. According to these regulations and CZMA Section 307(c)(1), when taking an action that affects any land or water use or natural resource of a state's coastal zone, NMFS is required to provide a consistency determination to the relevant state agency at least 90 days before taking final action. Florida is the only state affected by this action.

Upon submission to the Secretary of Commerce, NMFS will determine if this amendment is consistent with the Coastal Zone Management program of Florida to the maximum extent possible. Their determination will then be submitted to the responsible state agency under Section 307 of the CZMA administering approved Coastal Zone Management programs for Florida.

Data Quality Act

The Data Quality Act (DQA) (Public Law 106-443) effective October 1, 2002, requires the government to set standards for the quality of scientific information and statistics used and disseminated by federal agencies. Information includes any communication or representation of

knowledge such as facts or data, in any medium or form, including textual, numerical, cartographic, narrative, or audiovisual forms (includes web dissemination, but not hyperlinks to information that others disseminate; does not include clearly stated opinions).

Specifically, the DQA directs the Office of Management and Budget to issue government wide guidelines that "provide policy and procedural guidance to federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by federal agencies." Such guidelines have been issued, directing all federal agencies to create and disseminate agency-specific standards to: 1) ensure information quality and develop a pre-dissemination review process; 2) establish administrative mechanisms allowing affected persons to seek and obtain correction of information; and 3) report periodically to Office of Management and Budget on the number and nature of complaints received.

Scientific information and data are key components of fishery management plans (FMPs) and amendments and the use of best available information is the second national standard under the Magnuson-Stevens Act. To be consistent with the DQA, FMPs and amendments must be based on the best information available. They should also properly reference all supporting materials and data, and be reviewed by technically competent individuals. With respect to original data generated for FMPs and amendments, it is important to ensure that the data are collected according to documented procedures or in a manner that reflects standard practices accepted by the relevant scientific and technical communities. Data will also undergo quality control prior to being used by the agency and a pre-dissemination review.

Executive Orders

E.O. 12630: Takings

The Executive Order on Government Actions and Interference with Constitutionally Protected Property Rights that became effective March 18, 1988, requires each federal agency prepare a Takings Implication Assessment for any of its administrative, regulatory, and legislative policies and actions that affect, or may affect, the use of any real or personal property. Clearance of a regulatory action must include a takings statement and, if appropriate, a Takings Implication Assessment. The NOAA Office of General Counsel will determine whether a Taking Implication Assessment is necessary for this amendment.

E.O. 13132: Federalism

The Executive Order on Federalism requires agencies in formulating and implementing policies, to be guided by the fundamental Federalism principles. The Order serves to guarantee the division of governmental responsibilities between the national government and the states that was intended by the framers of the Constitution. Federalism is rooted in the belief that issues not national in scope or significance are most appropriately addressed by the level of government closest to the people. This Order is relevant to FMPs and amendments given the overlapping authorities of NMFS, the states, and local authorities in managing coastal resources, including fisheries, and the need for a clear definition of responsibilities. It is important to recognize those components of the ecosystem over which fishery managers have no direct control and to develop

strategies to address them in conjunction with appropriate state, tribes and local entities (international too).

No Federalism issues have been identified relative to the action proposed in this amendment. Therefore, consultation with state officials under Executive Order 12612 is not necessary.

APPENDIX C. PUBLIC COMMENTS RECEIVED

Continues on next page.

Florida Keys Commercial Fishermen's Association

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E-mail: FKCFA1@hotmail.com Website: FKCFA.Org

June 7, 2015

Dr. Pamella Dana, Chair & Committee
Members Mackerel Committee
Gulf of Mexico Fishery Management Council
2203 N. Lois Avenue, Suite
1100 Tampa, Florida 33607

Re: King Mackerel Framework Amendment 3, CMP Amendments 26 & 28

Dear Dr. Dana,

On May 6, 2015, the active permit holders in the kingfish gillnet fishery met in Key West, Florida to review and discuss alternatives proffered in Framework Amendment 3 and a review of CMP Amendments 26 & 28. Here are the results of that meeting:

Action 1: Modify the Commercial King Mackerel Gillnet Trip Limit
Industry Preferred: Alternative 2, Option 2b: Increase the trip limit to 45,000 pounds

95% of the strikes made in the gillnet fishery are less than 45,000 pounds, therefore an increase in the trip limit to that number resolves 95% of stakeholder problems, reduces chances of exceeding the trip limit and virtually eliminates the potential for excessive fines for even minor overages. The action will improve fleet efficiency, increase productivity and provide for greater safety at sea. By unanimous vote, all active, permitted, stakeholders agreed to request an increase in trip limits to 45,000 pounds and have verified their intent by signing the attached affidavit. Mathematically, at 45,000 pounds the current quota could be exceeded on the first day of fishing. However, in the entire history of the fishery the first day catch has never exceeded 250,000 pounds and typically averages about 200,000 or less.

Action 2: Modify Accountability Measures for the Gillnet Component of the Commercial King Mackerel Fishery
Industry Preferred: Alternative 1: No Action

Stakeholders felt none of the options presented in the amendment offered appropriate relief for fishermen. All of the stakeholders expressed willingness to volunteer overages provided underages would be allocated in the subsequent year's harvest. The discussion also addressed concerns over proposed reductions in the annual quota because of recruitment issues when millions of pounds of fish allocated to other sectors have been left unharvested for more than ten years.

Action 3: Modify Electronic Reporting Requirements for Dealers Receiving King Mackerel harvested by Gillnet in the Gulf Southern Zone

Industry Preferred: Alternative 1: No Action

Stakeholders saw no benefit to changing reporting requirements offered in Alternatives 2 or 3 and felt accountability measures and the increased level of communication developed over the past several years between stakeholders, port agents and NMFS/SERO provided real-time data gathering and a higher level of accountability.

Action 4: Elimination of Inactive Commercial King Mackerel Gillnet Endorsements

Industry Preferred: Alternative 3: Allow commercial king mackerel gillnet endorsements to be renewed only if landings for a single year during 2006-2015 were greater than 1 lb. Gillnet endorsements that do not qualify will be non-renewable and non-transferable.

For clarification, our intent is to maintain as active any permits with landings of 1 or more pounds in any year between 2006 and 2015.

CMP Amendments 26 & 28

- Stakeholders expressed disbelief regarding a proposed reduction in annual quota over the next 5 years based largely on an aging fish population and lower recruitment. Obviously, there is something inherently wrong with the models being used for the assessment especially when approximately 3 million pounds of allocation to the recreational sector have been left unharvested annually for 10 years. We urge the Councils to readdress the assessment and science indicating a need for such drastic cuts.

- Stakeholders support a recommendation for the new dividing line between Gulf and South Atlantic stocks
- established as the Miami-Dade/Monroe County line on the Atlantic side.

- Stakeholders support reallocation of unused quota from the recreational sector to the commercial sector until such time as the recreational sector has demonstrated a need for additional quota along with careful monitoring of the proposed recreational trip limit from 2 to 3 fish per person per day.

Dr. Dana, thank you for the opportunity to address these issues and provide comment to the committee as we continue to work with the Councils to enhance and streamline the rules and regulations governing this fishery.

Respectfully submitted,

s/Bill Kelly

Capt. Bill Kelly
Executive Director

C: Mr. Kevin Anson, GMFMC
Dr. Roy Crabtree, NMFS/SERO
Mr. Doug Gregory, GMFMC
Mr. Ben Hartig, SAFMC
Mr. Bob Mahood, SAFMC

Affidavit In Support of a 45,000 Trip Limit
Gulf of Mexico – Southern Sub-Zone – Gillnet Fishery
May 6, 2015

By affixing my signature hereto, I hereby certify, I am a current permit holder or authorized representative of the permit holder in the Gulf of Mexico, Southern Sub-Zone Gillnet Fishery for king mackerel and support a trip limit increase to 45,000 pounds (whole weight) per vessel per day.

#	PRINTED NAME	SIGNATURE	VESSEL NAME	PERMIT #
1	George Niles	George Niles	G and D	GN-5
2	Emilia C Paan	Emilia C Paan	lady Josephine	GN-11
3	Tim DANIELS	Tim Daniels	Lady	GN-12
4	Romero Birren	[illegible]	HIGH BIDDER	GN-14
5	Juan Pana	[illegible]	ILEANA L LILT	GN-20
6	Richard Diaz	Richard Diaz	TOMMY	GN-17
7	William T. Gibson Jr	William T. Gibson Jr	Gloria Jean	584980-GN4
8	Frank Arencibia Sr	[illegible] Sr	Aileen	GN-6
9	Santiago Arencibia Jr	[illegible]	Aileen II	GN-16
10	CHARLES CARTER	Charles Carter	New Boat	GN-15
11	William A Carter	[illegible]	KERISTY	GN-3/GN-13
12	Michael Birren	[illegible]	Brandi Lee	GN-24
13	Richard Stagitz	[illegible]	GET USE TO IT	GN-8
14	Charles Renner	[illegible]	Fish House	GN-2
15	Romeo Hernandez	Hernandez Romeo	R&J	GN-19
16				
17				
18				
19				
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