

SCOPING DOCUMENT FOR AMENDMENT 15 TO THE SHRIMP FMP

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires NOAA Fisheries and regional fishery management councils (Councils) to prevent overfishing, and to achieve, on a continuing basis, the optimum yield (OY) of federally managed fish stocks. The purpose of these mandates is to ensure fishery resources are exploited in a way that provides the greatest overall benefit to the nation, particularly with respect to providing food production and recreational opportunities, and protecting marine ecosystems. To further this goal, the MSA also requires federal fishery managers minimize bycatch and bycatch mortality to the extent practicable.

Overcapitalization in the Gulf of Mexico shrimp fishery has in the past resulted in fishing capacity exceeding that required to efficiently harvest the OY. Fishing capacity is the ability of a vessel or fleet of vessels to catch fish, and is generally defined by the number of vessels in the fleet, the size of each vessel, the technical efficiency of each vessel, and the time each vessel spends fishing. Profits are reduced when vessels expend more effort than is needed to harvest available resources.

The incidental take of juvenile red snapper has been a significant bycatch problem in the Gulf of Mexico shrimp fishery, the resolution of which has challenged fishery managers for many years. Despite the use of bycatch reduction devices (BRDs) in shrimp trawl gear, the fishery has been taking juvenile red snapper at a rate that jeopardizes the success of the red snapper rebuilding plan approved in Amendment 22 to the Gulf of Mexico Reef Fish Fishery Management Plan (FMP) (SEDAR7 2005) and, therefore, the red snapper fishery's ability to produce OY over the long term.

Reducing red snapper bycatch in the shrimp fishery is complicated because bycatch is largely tied to the amount of effort the fleet applies in harvesting shrimp. Recent information suggests BRDs used by the fleet to minimize bycatch have not been as effective as previously thought, and that a comprehensive effort reduction program may be needed to achieve the large-scale bycatch reduction required to end overfishing of red snapper by the shrimp fishery.

The purpose of this amendment is to reduce effort and bycatch in the shrimp fishery if needed, with the goal of improving socioeconomic conditions for fishery participants and fishing communities, addressing 2005 SEDAR assessment recommendations related to further reducing incidental fishing mortality on the red snapper stock, and furthering the ability of the shrimp and red snapper fisheries to achieve OY.

Alternative means to reduce overall effort in the shrimp fishery are difficult to evaluate at this time given our poor understanding of participation and effort. The Council recently approved Shrimp FMP Amendment 13, which will establish programs that, when implemented, provide needed data and information on participation, effort, and bycatch in the shrimp fishery. However, fishery managers will have difficulty fully understanding the effects and tradeoffs of alternative effort controls and reduction programs for a number of years given reduction in fishing vessels due to competition with foreign imports and high fuel costs in recent years and more especially, the

damaging effects of the 2005 hurricane season on participation and effort in the shrimp fishery.

The Council is concurrently evaluating in Amendment 27/14 to the Shrimp and Reef Fish FMPs, respectively, actions to end overfishing in the directed red snapper fishery and to improve the performance of BRDs used in the shrimp fishery. The schedule for Amendment 27/14 is driven by the need to implement any needed TAC adjustments prior to the 2007 fishing season to coincide with the potential implementation of the Council's proposed Individual Fishing Quota program.

Action 1. Alternatives to Further Reduce Bycatch in the Penaeid Shrimp Fishery of the Gulf of Mexico by restricting fishing by time/area

Alternative 1. No action - Do not establish additional measures to further reduce bycatch in the shrimp fishery but retain the current requirements for the use of bycatch reduction devices (BRDs) in shrimp trawls in the EEZ in accordance with existing regulations

Alternative 2. Set limits on the length and/or number of trips that can be taken by each shrimp vessel fishing in the EEZ by: month, year, landings history, trip history, etc.

Alternative 3. Add or expand closed seasons to shrimping in the EEZ

Alternative 4. Establish daily time closures to shrimping in the EEZ

Discussion: Current bycatch reduction requirements for the penaeid shrimp fishery in the EEZ include the use of approved bycatch reduction devices (BRD). Recent evidence of BRD performance indicates that the primary BRD in use (Fisheye) is not performing at a level that would allow the red snapper stock in the Gulf to recover from its overfished state. Consequently, additional measures are being considered. Further reducing bycatch through the implementation of additional seasonal closures as opposed to BRDs was discussed at length in Amendments 9 and 10 to the Shrimp FMP. The analysis showed that in essence there were already a large amount of potentially trawlable area that was closed either permanently or seasonally by regulations and other areas of hard bottom that would preclude the use of trawl gear. Furthermore, Hendrickson and Griffin (1993) simulated the effect of seasonal closures for 5 periods and found them all to be ineffective in reducing juvenile snapper bycatch. Time closures have not been evaluated; however, since the majority of brown shrimping effort occurs at night, and this fishery is the primary one that has juvenile red snapper bycatch, this alternative would probably have minimal affects on bycatch of juvenile red snapper, unless nighttime closures are implemented. Nighttime closures would have significant negative effects on brown shrimp catches. The requirement of BRDs was determined to provide the greatest benefit in terms of bycatch reduction and the least burdensome alternative for the shrimp industry. However, they do not appear to be achieving the level of bycatch reduction needed to recover the red snapper stock under the current rebuilding plan.

Setting limits on trips could effectively reduce bycatch because it could directly reduce effort. In order to be enforceable, however, some type of electronic logbook or VMS

would probably be required. Based on the economic situation that the shrimp industry has encountered from large increases in shrimp imports and high fuel costs, effort may already be reduced by over one third. This statement is based on the fact that there are currently approximately 2,500 valid shrimp vessel permits as compared with previous estimates using the SLF and VOUF of nearly 4,000. Although a reduction in the number of permits does not directly relate to a decrease in effort, anecdotal information indicates that a large number of vessels are not operating due to high fuel costs and low shrimp prices that make shrimping unprofitable. If this information is correct, additional bycatch reduction may have already occurred. Furthermore, the impacts of Hurricanes Katrina and Rita on the number of vessels that will likely be fishing in the near future is unknown.

Action 2. Alternatives to further reduce bycatch by setting limits on the amount of trawling gear that can be used aboard each vessel fishing in the EEZ

Alternative 1. No action – do not establish limits on the amount of trawling gear that can be used on vessel trawling for shrimp in the EEZ inside of 100 fathoms

Alternative 2. For vessels 60 feet in length and larger no more than 4 trawls, excluding a single try net not exceeding 20 feet in head rope length, may be in use while trawling for shrimp in the EEZ inside of 100 fathoms, and each such net shall not exceed:

Option a. 60 feet in head rope length

Option b. 50 feet in head rope length

Option c. 40 feet in head rope length

Alternative 3. For vessels less than 60 feet in length no more than 2 trawls, excluding a single try net not exceeding 20 feet in head rope length, may be in use while trawling for shrimp in the EEZ inside of 100 fathoms, and each such net shall not exceed:

Option a. 60 feet in head rope length

Option b. 50 feet in head rope length

Option c. 40 feet in head rope length

Discussion: Reducing the allowable amount of trawl gear and/or trawl size may reduce bycatch if it is sufficient to effectively reduce effort. Recent data suggest that there is excess effort in this fishery; consequently, the gear modifications would have to be sufficient to remove this excess effort. On the other hand, Hurricanes Katrina and Rita may have significantly reduced fishing effort in the EEZ; however to what level is currently unknown. Additionally, if shrimp vessels are able to simply trawl longer with reduced amounts of gear, they could effectively negate any perceived bycatch reduction.

Action 3. Alternatives to limit transferability of shrimp vessel permits

Alternative 1. No Action - continue to allow shrimp vessel permits to be freely transferable

Alternative 2. Vessel permits may only be transferred to a vessel of equal or lesser size (in length)

Alternative 3. Vessel permits may only be transferred to a vessel of equal or lesser horsepower

Alternative 4. Vessel permits may only be transferred to a vessel or person (corporate or otherwise) that can demonstrate landings of shrimp in 1 of the past 3 years (or can demonstrate that the permittee or vessel could legally land and sell shrimp in a state in 1 of the past 3 years)

Discussion: Potentially limiting transfer of permits to vessels of the same or lesser size would tend to keep effort from increasing thereby adding stability to the fishery. It may also have implications to bycatch and EFH that may increase with increasing size of vessels and the possibility of vessels using more and larger gear. On the other hand, a downsizing of the fleet in terms of the size of vessels could increase risks in terms of vessel safety. Limiting transferability to vessels that can demonstrate participation in the shrimp fishery would also help maintain stability, allow state-permitted vessels/persons to enter the offshore fishery, and prevent speculative entry into the fishery. On the other hand, limitations on the transferability have produced negative economic impacts in other fisheries.

Action 4. Alternatives to further reduce bycatch by establishing a bycatch quota for the penaeid shrimp fisheries of the Gulf of Mexico

Alternative 1: No Action – Do not establish a bycatch quota for the penaeid shrimp fisheries of the Gulf of Mexico

Seasonal Bycatch Quota Alternatives

Alternative 2. Establish a bycatch quota for the summer brown shrimp season (May 1 - August 31 of each year) and prohibit shrimp trawling in the EEZ once 75%, 85%, or 95% of the target average estimate of bycatch during this period has been taken during any given year

Alternative 3. Establish a bycatch quota for the fall white shrimp season (September 1 - November 30 of each year) and prohibit shrimp trawling in the EEZ once 75%, 85%, or 95% of the target average estimate of bycatch during this period has been taken during any given year

Alternative 4. Establish a bycatch quota for the winter and spring pink shrimp season (December 1 - April 30 of each year) and prohibit shrimp trawling in the EEZ once 75%, 85%, or 95% of the target average estimate of bycatch during this period has been taken during any given year

Area Bycatch Quota Actions

Alternative 5. Establish a bycatch quota by statistical subzone or combinations of subzones and prohibit shrimp trawling in the EEZ of such zones or subzones once 75%, 85%, or 95% of the target average estimate of bycatch from each zone or subzone has been taken during any given year

Alternative 6. Establish a bycatch quota by state (extending state lines by longitude to the limits of the EEZ) and prohibit shrimp trawling in the EEZ off such states once 75%, 85%, or 95% of the target average estimate of bycatch from a given state has been taken during any given year

Species Bycatch Quota Actions

Alternative 7. Establish a bycatch quota for all species, year-round and prohibit shrimp trawling in the EEZ once 75%, 85%, or 95% of the target average estimate of bycatch has been taken during any given year

Alternative 8. Establish a bycatch quota for red snapper and prohibit shrimp trawling in the EEZ once 75%, 85%, or 95% of the target average estimate of red snapper bycatch has been taken during any given year

Alternative 9. Establish a bycatch quota for only the managed species in the EEZ and prohibit shrimp trawling in the EEZ once 75%, 85%, or 95% of the target average estimate of bycatch has been taken during any given year for:

- a. Any managed species
- b. All managed species
- c. Only overfished species or species undergoing overfishing

Note: Bycatch quotas could be established in numbers or pounds

Discussion: The Seasonal Bycatch Quota Actions would establish bycatch quotas in species specific shrimp fisheries based on the approximate seasonal lengths of these fisheries for brown, white, and pink shrimp, respectively. Although there is overlap in the catch of these species, there are differences in the areas and times when the majority of harvest occurs. Brown shrimp harvest primarily occurs in offshore waters of Texas and Louisiana during the spring and summer months while white shrimp are typically harvested closer to shore in summer and fall, thus the bycatch is different. Pink shrimp catch predominantly comes from south Florida in winter, and again the bycatch is different. These alternatives would establish time-specific bycatch quotas. Area Bycatch Quota Actions set bycatch quotas using statistical subzones (or combinations thereof) or state boundaries. Species Bycatch Quota Actions would establish bycatch quotas for either all species, various options for only managed species, or only red snapper.

The setting of bycatch quotas of any kind for the purpose of bycatch reduction requires some initial estimate of the type and amount of bycatch being harvested by shrimp vessels. Although a standardized bycatch reporting methodology has been proposed in Amendment 13, the type and amount of bycatch is currently unknown and could only be rudimentally estimated. Furthermore, because the annual abundance of many of the bycatch species is related to environmental conditions and reproductive potential, any program to measure bycatch in a given year may not have any relevance to the amount of such bycatch that is available for harvest the following year. The life history of many bycatch species is unknown, others are only annually susceptible to trawl gear, while others may be caught in trawls at various ages. Consequently, a long-term data series of bycatch abundance by species would be needed to appropriately establish bycatch quotas, unless only a very small number of species are selected for quota management. Bycatch

quotas would be extremely difficult to enforce without extensive observer coverage that would be cost prohibitive. Self reporting would require extensive training in identification, unless only total poundage was chosen, and would probably be highly inaccurate without observers.

Action 5. Alternatives to Monitor a Bycatch Quota

Alternative 1. No action - do not establish a bycatch quota monitoring program

Alternative 2. Using the proposed standardized bycatch monitoring program established under Amendment 13 to determine the amount and type of bycatch that is occurring in the EEZ, shrimp trawling in the EEZ will be prohibited when the quota is reached based on the bycatch quota selected under Action 5 above

Alternative 3. Require retention/weighing/counting of bycatch; shrimp trawling in the EEZ will be prohibited when the quota is reached based on the bycatch quota selected under Action 5 above

Alternative 4. Authorize the NMFS to implement a bycatch quota monitoring program in accordance with any established bycatch quota program recommended by the Council under Action 5 and established by NMFS

Discussion: Although there is an obvious need to monitor a bycatch quota program to determine if it is effective in meeting its objectives, the first step is to establish the type of program needed and implement it. As discussed under Action 5 above, it is doubtful that an accurate and enforceable program to measure bycatch could be implemented in the near future without exorbitant expenditures of funds for observers. On the other hand, if an acceptable program can be designed and implemented, the NMFS would probably be the agency that would actually conduct bycatch monitoring. Consequently, allowing NMFS to establish the requirements of a monitoring program would probably be the most logical alternative.

Action 6. Alternatives to reduce effort by eliminating latent permits

Alternative 1. No Action – Do not eliminate latent permits

Alternative 2. Vessel permits will not be renewed unless a vessel has demonstrated commercial landings of shrimp in 2 of the 3 years preceding/following implementation of this amendment

Alternative 3. Vessel permits will not be renewed unless a vessel has demonstrated commercial landings of shrimp in 3 of the 5 years preceding/following implementation of this amendment

Alternative 4. Vessel permits will not be renewed unless a vessel has demonstrated commercial landings of shrimp in excess of 10,000 pounds in 2 of the 3 years or 3 of the 5 years preceding/following implementation of this amendment

Alternative 5. Vessel permits will not be renewed unless a vessel has demonstrated commercial landings of shrimp in excess of 15,000 pounds in 2 of the 3 years or 3 of the 5 years preceding/following implementation of this amendment

Discussion: There is a large amount of latent effort in the shrimp fishery due to economic conditions that have resulted in inactivity of vessels due to high fuel costs and low market prices. Some of these vessels may be precluded from the shrimp fishery of the EEZ under action to implement a moratorium that is part of Amendment 13 to the Shrimp FMP. Although not currently fishing, many of these vessels would qualify for reissuance of permits under the moratorium. Additionally, federal permits have been issued to vessels that are probably not fishing in the EEZ and were obtained on speculation. For example, as of November 30, 2004, there were 84 permitted vessels that are under 30 feet in length, and 10 of those vessels were under 20 feet in length. Such vessels are not likely to be operating in the EEZ for any significant period of time, if at all. Eliminating permits that are not being used could increase stability and probably profitability for the vessels that are actively participating in the shrimp fishery of the EEZ in the Gulf. On the other hand, analyses in Amendment 13 indicate that the number of valid shrimp vessel permits will probably continue to decline until at least 2012 due to the aforementioned high operating costs and low prices for shrimp. These factors have made it unprofitable for many large vessels to operate. Consequently, it is likely in the short term that latent permits will be subsumed with vessels exiting the fishery. Furthermore, Hurricanes Katrina and Rita have destroyed or rendered unfishable many vessels, and it is uncertain how many of these vessels were active in the offshore shrimp fishery and how many will return. Additionally, if the landings requirement for permit renewal is based on landings preceding the implementation of this amendment, active vessels could be precluded from renewing their permits if it takes the owners a year or more to return to the fishery following the hurricanes.

Action 7. Alternatives to reduce effort in the penaeid shrimp fishery of the Gulf of Mexico through permit/fishing reductions

Alternative 1. No action - Do not establish programs to reduce effort in the shrimp fishery of the Gulf of Mexico

Alternative 2. Establish a trip-based individual fishing quota (IFQ) system or a landings-based system for the shrimp fishery in the EEZ. Specify the number of days, trips, or landings per month or per year for each qualifying vessel. Set each vessels limit at or below the vessel's historical average number of fishing trips, days fished, or landings

Alternative 3. Establish a fractional permit limited access system under which each shrimp vessel permit will revert to one-half of a permit beginning in the third, fifth, or tenth year following the implementation of a permit moratorium. A shrimp vessel would then be required to have on board a full permit (i.e., two half permits) to be eligible to fish for shrimp in the EEZ

Alternative 4. Establish a fractional permit limited access system under which each shrimp vessel permit will revert to one-half of a permit upon transfer of a permit from one person (corporate or otherwise) to another following the implementation of a

permit moratorium. A shrimp vessel would then be required to have on board a full permit (i.e., two half permits) to be eligible to fish for shrimp in the EEZ. This provision would not apply to transfers between vessels owned by the same person (corporate or otherwise)

Discussion: As noted in Amendment 13, the shrimp fishery in the Gulf is currently experiencing a decline in the number of vessels due to low prices from competition with foreign imports and high fuel costs. Nance (2003) indicated that a reduction in fishing mortality, which may be related to effort, would not initially result in a reduction in shrimp yield for all penaeid species. Consequently, some reduction in effort could provide increased benefits to shrimpers and more closely approximate OY if they effectively accumulate a larger share of the shrimp crop in a given year. If the decline in the number of permitted vessels continues as expected, the effective effort will be reduced at some point along with a reduction in bycatch. Fractional permit systems could reduce the number of permit holders by 50% at some future date. Depending on the level of participation, effective effort, and the industry's ability to compensate and fish harder, this alternative may or may not result in an equal reduction in effective effort and bycatch. On the other hand, a 50% reduction in the number of shrimp vessel permits would probably reduce effort and catch significantly, and the reduction could result in shrimp harvests being below OY. Finally, the impacts in terms of reduction in the number of vessels that may result from Hurricanes Katrina and Rita are unknown but could be significant, especially in the short-term.

Action to establish a trip-based IFQ system or a landings-based system would reduce effort and bycatch through a reduction in trips or days fished, as data are currently collected by NMFS. Each vessel permit holder would be allocated a certain number of days/trips to fish within a season or landings. As with area or seasonal closures, some type of VMS or electronic logbook would likely be needed in order to enforce this alternative. Another difficulty in implementing this alternative would be determining individual vessels' initial and future qualification and allocation. This would entail decisions on whether all vessels would get the same number of days to fish or if it would be prorated based on previous historical participation, vessel size, or other criteria. Obviously vessel length and numbers of nets would be factors to consider when evaluating operational costs and shares (days) if a prorated IFQ system is used.

Action 8: Enforcement Actions

Alternative 1. No action - do not require VMS systems aboard shrimp trawl vessels fishing in or transiting any portion of the EEZ of the Gulf of Mexico

Alternative 2. Require a properly functioning NMFS certified VMS aboard all shrimp trawl vessels fishing in or transiting the EEZ of the Gulf of Mexico off the West Coast of Florida South of 29EN. Latitude (Yankeetown, Florida).

Alternative 3. Require a properly functioning NMFS certified VMS aboard all shrimp trawl vessels fishing in or transiting the EEZ of the Gulf of Mexico off Texas during any period in which only part of these waters are closed in conjunction with the Texas Closure.

Alternative 4. Require a properly functioning NMFS certified VMS aboard all shrimp trawl vessels fishing in or transiting the EEZ of the Gulf of Mexico off the West Coast of Florida South of 29EN. Latitude (Yankeetown, Florida) and require a properly functioning NMFS certified VMS aboard all shrimp trawl vessels fishing in or transiting the EEZ of the Gulf of Mexico off Texas during any period in which only part of these waters are closed in conjunction with the Texas Closure.

Alternative 5. Require a properly functioning NMFS certified VMS aboard all shrimp trawl vessels fishing in or transiting the EEZ of the Gulf of Mexico.

Discussion: The requirement of Vessel Monitoring Systems (VMS) has been shown to be an effective management tool for enforcement in policing closed fishing areas in the EEZ of other regions of the U.S. Currently, there are numerous closed areas to shrimping in state waters and the EEZ of the Gulf of Mexico. In the EEZ, primary areas include the Tortugas Shrimp Sanctuary, FKNMS, Florida Middle Grounds, Pulley's Ridge, East and West Flower Garden Banks, McGrail and Stetson Banks, as well as the cooperative Texas Closure, which is seasonal, and seasonal closures off the west coast of Florida. The requirement of VMS for shrimp vessels would provide an important addition to enforcement capabilities for these closed areas. On the other hand, if the shrimp industry is required to pay for and maintain these VMS, it would create an additional financial burden to an industry that is currently experiencing severely reduced profits due to price reductions from competition with foreign imports and high fuel costs, as well as impacts from recent hurricanes. Finally, VMS or 100% coverage using electronic logbooks would be needed to enforce a trip/days fished IFQ system.