

FRAMEWORK ADJUSTMENT
TO THE
REEF FISH FISHERY MANAGEMENT PLAN
FOR THE REEF FISH RESOURCES OF
THE GULF OF MEXICO

*(Includes Environmental Assessment,
and Regulatory Impact Review)*

NOVEMBER 1991

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1. HISTORY OF MANAGEMENT

The Reef Fish Fishery Management Plan was implemented in November 1984. The implementing regulations, designed to rebuild declining reef fish stocks, included: (1) prohibitions on the use of fish traps, roller trawls, and powerhead-equipped spear guns within an inshore stressed area; (2) a minimum size limit of 13 inches total length for red snapper with the exceptions that for-hire boats were exempted until 1987 and each angler could keep 5 undersize fish; and, (3) data reporting requirements.

The National Marine Fisheries Service (NMFS) has collected annual commercial landings data since the early 1950s, recreational harvest data since 1979, and in 1984 initiated a dockside interview program to collect more detailed data on commercial harvest by species. Consequently, just recently has quantitative assessment of the population levels of major reef fish species been possible. The first red snapper assessment in 1988 indicated that red snapper was significantly overfished and that reductions in fishing mortality rates of as much as 60 to 70 percent were necessary to rebuild red snapper to a recommended 20 percent spawning stock potential ratio (SPR). The 1988 assessment also identified shrimp trawl bycatch as a significant source of mortality.

The Council, through Amendment 1 to the Reef Fish Fishery Management Plan¹, implemented in 1990 a 5 fish recreational bag limit and a 11.0 million pound commercial quota¹ for groupers that together were to reduce fishing mortality by about 10 percent and begin rebuilding the population. The commercial quota was subdivided into a 9.2 million pound shallow-water quota¹ and a 1.8 million pound deep-water quota¹. The Council also implemented a framework procedure to allow for annual management changes.

Amendment 2, implemented in 1990, prohibited the harvest of jewfish to provide complete protection for the species in waters off Florida because the population abundance throughout its range is greatly depressed.

Amendment 3, implemented in July, 1991 provided additional flexibility in the annual framework procedure by allowing the target date for rebuilding an overfished stock to be changed depending on changes in scientific advice. Also, the amendment transferred speckled hind from the shallow-water grouper quota category to the deep-water grouper category, and established a new red snapper target year of 2007 for achieving the 20 percent spawning potential goal established in Amendment 1.

¹These values have been subsequently modified to correct for revisions adopted in the gutted to whole weight ratio. Historically the conversion ratio used was 1.18, subsequently the ratio has been corrected and 1.05 is used. This results in these values being 9.8, 8.2, and 1.6 million pounds, respectively, for total, shallow-water and deep-water grouper quotas (e.g., $\frac{11.0}{1.18} \times 1.05 = 9.8$).

1.18

There is no impact on the commercial fishery from the revision as fish landed have always been recorded in gutted weight and that data is transformed to whole weight for NMFS records.

Amendment 4, submitted in November, 1991 for implementation, proposes to modify the framework procedure for specifying TAC to change the timing for completion of stock assessments and to provide the Council be notified within 15 days of measures specified under the procedure that are unacceptable to the Regional Director (RD) of NMFS. It also proposes that scamp landed be counted in the shallow-water grouper quota until that quota is reached and thereafter in the deep-water grouper quota. It also proposes a three-year moratorium on the issuance of commercial vessel permits, while the Council develops a more comprehensive effort limitation system.

2. MANAGEMENT OBJECTIVE AND OPTIMUM YIELD

The primary objective and definition of Optimum Yield for the Reef Fish Fishery Management Plan is to stabilize long term population levels of all reef fish species by establishing a certain survival rate of biomass into the stock of spawning age to achieve at least 20 percent spawning potential ratio.

Definition of Overfishing

The following is the definition of overfishing contained in the Reef Fish Fishery Management Plan (FMP).

1. A reef fish stock or stock complex is overfished when it is below the level of 20 percent SPR.
2. When a reef fish stock or stock complex is overfished, overfishing is defined as harvesting at a rate that is not consistent with a program that has been established to rebuild the stock or stock complex to the 20 percent SPR level.
3. When a reef fish stock or stock complex is not overfished, overfishing is defined as a harvesting rate that if continued would lead to a state of the stock or stock complex that would not at least allow a harvest of optimum yield on a continuing basis (SPR).

3. PROBLEM REQUIRING FRAMEWORK ADJUSTMENT

The FMP, as amended, provides that each year the Council may specify changes to the TAC level and management measures regulating TAC for the next year for the stock or stock complex for which a stock assessment has been completed and a range of acceptable biological catch (ABC) has been identified. The Council proposes that the commercial shallow-water grouper quota for 1992 be set at 9.8 million pounds, an increase of 1.6 million pounds above the 1991 quota of 8.2 million pounds (adjusted whole weights - see footnote 1). The Council reviewed stock assessment for red grouper and vermilion snapper and information on greater amberjack but recommended no change in measures regulating vermilion snapper or greater amberjack.

4. ENVIRONMENTAL ASSESSMENT

Background

The Southeast Fishery Center (SEFC) of NMFS prepared a stock assessment for the red grouper fishery (Goodyear and Schirripa, 1991) and a biological profile for vermilion snapper with description of the fishery (Goodyear and Schirripa, 1991b), as well as updated information on the amberjack resources (Cummings - Parrack and Phares, 1991). The Council's Reef Fish Stock Assessment Panel (Panel) reviewed the stock assessment information and developed a report to the Council (Muller, et. al., 1991). The report presented the panel's conclusions on the stock assessment information and their recommendations on ABC (to the extent possible) on the stocks and on research and data collection requirements for the fisheries. The panel made no recommendations on greater amberjack due to the preliminary nature of the information available. The information for vermilion snapper precluded assessment of both the spawning potential ratio (SPR), fishing mortality rate, or any estimate of standing stock size due to two sets of very divergent growth equations for vermilion snapper. The panel expressed their concern over escalating commercial landings in recent years and suggested the Council consider capping fishery harvest at the 1990 level of 2.9 million pounds (MP).

For red grouper the panel recommended the ABC range be set between 8.2 and 9.2 MP for a minimum size at entry of 20 inches TL and release mortalities of 50 and 33 percent, respectively. These levels, which include both commercial and recreational harvest components, result in SPR levels of 42.6 and 34.6 percent, respectively (Table 1), which are well above the Council's goal of maintaining at least a 20 percent SPR level for each stock. Table 2 removes the recreational component (28.5 percent) and expresses the ranges in terms adjusted whole weight (see footnote 1) for the shallow-water grouper complex commercial quota of which red grouper constitute 69 percent by weight. In terms of shallow-water grouper commercial quotas the ABC range, at a minimum size of 20 inches would be 8.9 to 10.0 MP with the same SPR levels cited above. The 1991 quota is 8.8 MP as adjusted by the July, 1991 regulatory amendment to the FMP. The stock assessment information and panel report was reviewed by the Reef Fish Socioeconomic Assessment Panel (SEP), the Scientific and Statistical Committee (SSC) and the Reef Fish Advisory Panel (AP). Each of these advisory groups accepted that panel report and recommendations related to red grouper, except the SEP report (Riechers, et. al, 1991) indicated that for red grouper alone there was no conclusive evidence that a quota, size limit, or bag limit were needed. These advisory groups recommended retaining the regulatory status quo for vermilion snapper and amberjack until more definitive stock assessment information becomes available.

Description of and Need for Proposed Action

The Council proposes to increase the shallow-water grouper commercial quota for 1992 by 1.6 MP (i.e., from the 1991 base level of 8.2 MP to 9.8 MP adjusted whole weights - see footnote 1). The Council is proposing this action because stock assessment information indicates that harvest at this level will result in a SPR level of about 36 percent, well above the Council's goal of maintaining a SPR of at least 20 percent. Further, at the 8.2 MP quota level the fishery was closed for 1-1/3 months in 1990, creating adverse economic impacts on the industry and market. The additional 1.6 MP should prevent a closure during the fishing year, allowing a continuous supply of filets to the market.

The Council considered a similar increase in allocation to the recreational sector but took no action for the increase. This was because red grouper make up only 27 percent of the recreational landings (1990 data) as opposed to 69 percent of the commercial landings, i.e., other shallow-water groupers make up 73 percent of the recreational landings. In addition, no stock assessment information to determine the status of other shallow-water grouper was available. Gag grouper in 1990 made up 43 percent of the Gulf recreational

landings, whereas commercial landings of this species (1986-1990) averaged 0.66 MP (or about 8 percent). Since the Council had previously acted through Amendment 1 to allocate groups between commercial and recreational fishermen via quota and bag limits it did not address the SEP recommendation that quotas and bag limits be eliminated.

The Council proposed no action for vermilion snapper or greater amberjack other than to request that NMFS, (1) closely monitor harvest levels for vermilion snapper and keep the Council apprised and, (2) attempt to resolve the discrepancies between the various growth equations for that species. Regulations implemented by Amendment 1 for greater amberjack were controlling expansion of that fishery.

Alternatives to the Proposed Action

Alternatives to the action proposed by the Council include status quo - no change to the commercial shallow-water grouper quota, setting the quota at some other level within the ABC range and revising the bag limit for grouper. The status quo for the commercial quota was rejected because the assessments indicated that the harvest levels could be safely increased while maintaining a SPR level well above the 20 percent level (i.e., on the order of 30 to 40 percent SPR - Table 2). Further, as indicated in the RIR of the regulatory amendment to the FMP of July, 1991 the status quo resulted in forgone ex-vessel revenues of \$0.99 million when the fishery closed in 1990.

The proposed action is to set the commercial shallow-water grouper quota at 9.8 MP adjusted whole weight¹. This is near the upper limit of the ABC range (i.e., 10.0 MP - Table 2) and the level could have been set at other levels between 8.9 and 10.0 MP. However, the SPR for the proposed action is about 36 percent and the quota level assures the fishery will not be closed. (The fishery is not anticipated to be closed in 1991 under an adjusted quota of 8.8 MP).

Some members of the Council also suggested alterations of fishing zones for grouper. This action was deferred to May, 1992, in order to obtain information to assess biological and economic impacts of and public comment on the proposed changes. Change to the size limit was similarly proposed by some members, but not approved by the Council because age at maturity exceeds the minimum proposed (18 inches) size. The recreational bag limit for grouper was not changed for reasons cited in the previous section.

Environmental Consequences

Physical Environment

The proposed action will have no impact on the physical environment.

Fishery Resource

The proposed action will allow a harvest of 9.8 MP, which is greater than the harvest anticipated for 1992. The harvest level will not adversely affect the shallow-water grouper complex since SPR at that harvest level, if taken, is about 36 percent. The increase in shallow-water quota will reduce fishing pressure on the deep-water grouper complex, for which the biological and assessment information is unavailable or poor, but which is more easily over-exploited.

Human Environment

The addition of 1.0 MP to the 1991 shallow-water grouper quota (as adjusted by the regulatory amendment of July, 1991 to 8.8 MP) will result in additional revenue to the industry and assure the fishery does not close, disrupting market and income flow as was the case in 1990.

Effect on Endangered Species and Marine Mammals

Although the proposed action will essentially return the commercial fishery to the pre-Amendment 1 condition, it is anticipated to have no impact on endangered and threatened species or marine mammals.

Effect on Wetlands

The proposed action will have no effect on flood plains, wetlands, or rivers.

Mitigating Measures Related to the Proposed Action

No environmental impacts are expected with the proposed action, therefore no mitigating actions are proposed.

Unavoidable Adverse Affects

There are no unavoidable adverse affects resulting from this proposed action.

Irreversible and irretrievable commitments of resources

There are no irreversible commitments of resources caused by implementation of this action.

Vessel Safety

The proposed action does not impose requirements for use of unsafe (or other) gear nor do they direct fishing effort to periods of adverse weather conditions.

Data Collection

There is no additional data collection requirement contained in the proposed action.

Scientific Data Needs

A request to NMFS is made to (1) closely monitor harvest levels for vermilion snapper and keep the Council apprised and, (2) attempt to resolve the discrepancies between the various growth equations for that species.

Federalism

The proposed action does not contain policies with federalism implications sufficient to warrant preparation of a federalism assessment under E.O. 12612.

Coastal Zone Management Consistency

The Assistant Administrator has determined that this proposed action will be implemented in a manner that is consistent to the maximum extent practicable with the approved coastal zone management program of Florida, Alabama, Mississippi, and Louisiana and the pending program in Texas. This determination has been submitted for review by these states under Section 307 of the Coastal Zone Management Act.

Finding of No Significant Environmental Impact

The proposed amendment is not a major action having significant impact on the quality of the marine or human environment of the Gulf of Mexico. The proposed action is a management adjustment based on the framework procedure for rebuilding overfished reef fish stocks as set forth in Amendment 1 to the Reef Fish FMP. The proposed action should not result in impacts significantly different in context or intensity from those described in the environmental impact statement and environmental assessment published with the regulations implementing the FMP and Amendment 1.

Having reviewed the environmental assessment and available information relative to the proposed actions, I have determined that there will be no significant environmental impact resulting from the proposed actions. Accordingly, the preparation of a formal environmental impact statement on these issues is not required for this amendment by Section 102(2)(c) of the National Environmental Policy Act or its implementing regulations.

Approved:

Assistant Administrator for Fisheries

Date

RESPONSIBLE AGENCY:

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5. REGULATORY IMPACT REVIEW

Introduction

The Executive Order 12291 (E.O. 12291) 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 to enhance the public welfare in the most efficient and cost effective way.

The RIR also serves as the basis for determining whether any proposed regulations are major under criteria provided in E.O. 12291 and whether the proposed regulations will have a significant economic impact on a substantial number of small entities in compliance with the Regulatory Flexibility Act of 1980 (RFA).

This RIR analyzes the probable impacts that the proposed alternatives for the Reef Fish FMP would have on the directed commercial and recreational grouper fishery. Ideally, the expected net present values of the yield streams over time associated with the different alternatives would be compared in evaluating impacts. Unfortunately, estimates of the yield streams and their associated probabilities are not available. The approach taken in analyzing alternative commercial quotas and recreational bag limits is to describe and/or quantify the changes in short-term benefits or costs to both the commercial sector and recreational sectors.

Problem Requiring Framework Adjustment

The major problem requiring framework adjustment is discussed in Section 3 of the document. The basic issue concerns adjusting the total allowable catch (TAC) for the grouper stock complex. The Council considered alternative grouper bag limits for the recreational sector, but opted for the status quo. In addition, the Council did not take any management actions for vermilion snapper and greater amberjack, the two other reef fish species for which stock assessments were completed.

Long-term Goal and Management Objectives

The long-term goal of the Reef Fish Fishery Management Plan (FMP), as amended, is the achievement of Optimum Yield. Associated with the achievement of this goal is the prevention of overfishing of the reef fish resource. As discussed in Section 2 of the document, an SPR of 20 percent is the minimum level below which a stock or stock complex is considered to be overfished. A harvesting rate that is not consistent with the achievement or maintenance of such an SPR level is considered overfishing.

The management objectives are enumerated in the FMP and need no re-statement here except for those that have direct bearing on the presently proposed set of regulations. These objectives are:

- 1) To rebuild the declining reef fish stocks wherever they occur within the fishery; and,
- 2) To maximize net economic benefits from the reef fish fishery.

Analysis of Management Measures

Commercial Sector

Preferred Alternative: Set the 1992 commercial quota for shallow-water groupers at 9.8 million pounds (MP) in adjusted whole weights, which is 1.6 MP higher than the 1991 base level quota of 8.2 MP in adjusted weights.

Rejected Alternative 1: Status quo: set the 1992 commercial quota for shallow-water groupers at 8.2 MP in adjusted weights.

Rejected Alternative 2: Set the 1992 commercial quota for shallow-water groupers at some other level within the ABC range of 8.9 MP and 10.0 MP in adjusted weights.

Several clarifications are in order here. Firstly, the conversion rate from gutted to whole weight of groupers has been adjusted from 1.18 to 1.05 as the latter number is deemed to be the more correct conversion rate (see Final Report of the Stock Assessment Panel, 1991). In Amendment 1 to the Reef Fish FMP, the commercial quota was set at 11.0 MP, divided into 9.2 MP quota for shallow-water groupers and 1.8 MP for deepwater groupers. In terms of the new conversion rate, these numbers are respectively equivalent to 9.8 MP, 8.2 MP, and 1.6 MP. Since fish landed have always been recorded in gutted weight, the conversion does not affect the determination of the commercial grouper quota for purposes of ascertaining whether or not the quota for the year has been met. The quota numbers referred to in the alternative management measures are based on calculations using the new conversion rate. Secondly, the 1991 commercial quota has been recently increased by about 700,000 pounds to correct the 1990 shortfall in quota due to the pre-mature closing of the fishery in that year. In terms of the new conversion rate, this number is equivalent to about 622,800 pounds. For purposes of impact analysis, this additional amount is not considered an integral part of the 1991 quota. Thirdly, the stock assessment considered only red grouper. To the extent that red grouper comprise as much as 69 percent of commercial landings of shallow-water groupers, this species may be taken as an index for other shallow-water groupers pending more information about these other species. Fourthly, the proposed quota adjustment refers only to the shallow-water groupers, and thus leaves unaffected the deep-water grouper quota.

The most recent stock assessment (Goodyear and Schirripa, 1991) shows that at the estimated ABC limits of 8.2 MP and 9.2 MP for red groupers, the corresponding SPR levels assuming a 20-inch minimum size limit and release mortality rates of 50 and 33 percent respectively, are 42.6 and 34.6 percent. These estimated ABC limits include both commercial and recreational harvests. In terms of commercial shallow-water groupers, these numbers are equivalent to 8.9 MP and 10.0 MP, respectively. Being substantially above the Council's minimum target of 20 percent by the year 2000, these SPR levels indicate that harvest levels within the suggested range do not materially impinge on the long-term viability of at least the red grouper stock. In this regard, harvest levels within the range (Preferred Option and Rejected Alternative 2) and below the lower limit of the range (Rejected Alternative 1) do not sacrifice long-term benefits for short-term benefits. Thus, all the three options considered for the commercial sector would bring about positive benefits to the fishery. In the absence of projected yield and income streams under each of the three options, it is not possible to rank these alternatives when viewed from a long-term perspective. However, their short-term impacts, vary and approximate ranking of alternatives is possible.

Assuming that all groupers landed would be accommodated by the market, the higher the quota the higher would be the ex-vessel revenues to the commercial sector as can be expected from an inflexible demand for groupers (Keithly and Prochaska, 1985). By definition, the status quo has no effects on commercial harvest; any revenue changes would merely reflect the general change in prices. Under the Preferred Option, commercial harvest would potentially increase by 1.6 MP or 19.5 percent above that of the status quo. Using the annual Gulfwide average ex-vessel price for shallow-water groupers of \$1.66 per pound and price flexibility estimate of -0.4614, the Preferred Option would result in a price decrease of about 9 percent, bringing down the price to about \$1.51 per pound. Ex-vessel revenues would increase from \$13.61 million

(under the status quo) to \$14.80 million, or by \$1.19 million. Using similar calculations for Rejected Alternative 3, the increase in ex-vessel revenues would range from about \$0.63 million to \$1.29 million. Among the three alternatives considered, fishing costs are not expected to significantly differ from one another so that revenue estimates may be deemed as reasonable approximation of net benefits at the ex-vessel level of the commercial industry. The revenue impacts of the lower limit of Rejected Alternative 3 may be considered substantially different from the other calculated values. However, the revenue impacts of the upper limit of Rejected Alternative 3 do not appear to be significantly different from those of the Preferred Alternative.

The foregoing estimates on the beneficial impacts of the proposed increase in TAC are premised on the harvest sector meeting the increased quota. As alluded to earlier, the 1991 quota has recently been increased from 8.2 MP to 8.8 MP due to pre-mature closing of the grouper fishery in 1990. Recent estimates by the Gulf Reef Fish Panel (November 5, 1991), the group charged with monitoring the reef fish quota, indicate that the 1991 shallow-water grouper commercial quota will not be met. There is, of course, no reason to conclude that similar situation will occur in 1992, this condition partially raises question on the potential benefits from increasing the 1992 quota. In public testimony held during the November 1991 Council meetings held in Tampa, Florida several fishermen indicated that the increased quota for 1992 would be filled, especially if the commercial shark fishery would be closed or severely restricted. It may also be noted that a moratorium on the issuance of new permits, if approved, will be implemented sometime in 1992. This measure is expected to initially increase the issuance of permits and consequently participation in the fishery. Some of the increase in permits may be for speculative purposes, but some of the new permittees may actually fish for groupers. In addition, the red snapper fishery closed in August 1991. This closure could eventually mean shifting of fishing effort to the grouper fishery. Thus, the increase in the 1992 commercial quota for shallow-water groupers could potentially be met despite the 1991 season showing signs of quota underrun.

The Preferred Option would have beneficial impacts on fishery participants. Permit records reveal that 1,720 commercial reef fish permits have been issued as of October 31, 1991 (Regulations and Permits Branch, NFMS-SERO, 1991). Additional 80 permits are projected to be issued for the months of November and December, 1991. Thus, between 1,700 to 1,800 permittees would be positively impacted by the proposed increase in TAC. Since more than 90 percent of shallow-water groupers have been historically landed in the eastern Gulf (primarily west Florida), most of the benefits from the proposed increase in TAC would accrue to fishery participants in this region particularly those using longline, hook and line bandit, and rod and reel fishing gear.

Recreational Sector

Preferred Alternative: Status quo: set the 1992 recreational bag limit for all grouper species to 5 fish per person per day.

Rejected Alternative: Increase the 1992 recreational bag limit for groupers in proportion to the increase in commercial quota.

The FMP, as amended, currently stipulates a recreational bag limit for all species of groupers of 5 fish per person per day. The most recent stock assessment considered only red grouper, and no stock assessments are available for other grouper species. The 1990 recreational harvests of shallow-water groupers consisted of 27 percent red groupers and 73 percent other shallow-water groupers. Primarily as result of the minimum size limit adopted in 1990, the recreational landings of groupers declined by 70 percent by number and 41

percent by weight (Report of the Stock Assessment Panel, 1991). A bag limit analysis undertaken when Amendment 1 was considered indicated that a 5-fish bag limit on all groupers would reduce recreational catch by about 18 percent (Table 11.13, Amendment 1 to Reef Fish FMP). In effect, the bag limit was not as constraining as the size limit for the recreational sector. Under this condition, an increase in the bag limit (Rejected Option) could only have minimal positive impact (relative to the status quo) on the recreational fishery if the size limit is not accordingly adjusted. In the absence of necessary information, this slight positive impact from an increase in bag limit cannot be quantified.

Public and Private Costs of Management

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 specific action include:

Council costs of document preparation, meetings, public hearings, and information dissemination.....	\$19,500
NMFS administrative costs of document preparation, meetings and review.....	\$ 3,000
Law enforcement costs.....	\$ none
Public burden associated with permits.....	\$ none
Federal costs associated with permits.....	\$ none
TOTAL.....	<u>\$22,500</u>

The Council and Federal costs of document preparation are based on staff time, travel, printing and any other relevant items where funds were expended directly for this specific action. There are expected to be no increased costs of law enforcement relative to the status quo because there will be no new types of regulations to enforce. There will be no increased public burden or Federal costs associated with the action because the permit system is not affected.

Summary and Conclusion

The Preferred Alternative and Rejected Alternative 3 for the commercial sector of the grouper fishery are expected to positively benefit the industry. Rejected Alternative 2 is the status quo, and is considered to entail no impacts by definition. The Preferred Alternative has substantially higher positive impacts than the lower limit of Rejected Alternative 3, but has slightly less positive impacts than the upper limit of Rejected Alternative 3. The Preferred Alternative for the recreational sector, being the status quo, has no impacts by definition. The Rejected Alternative for the recreational sector has slightly higher but non-quantifiable impacts on this segment of the grouper fishery. The net impact of the proposed set of regulations inclusive of administrative costs is expected to be positive.

Determination of a Major Rule

Pursuant to E.O. 12291, a regulation is considered a "major rule" if it is likely to result in: a) an annual effect on the economy of \$100 million or more; b) a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or c) significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets. The real (inflation-adjusted) ex-vessel value of commercial grouper (all species) landings in the U.S. Gulf of Mexico was about \$12.43 million in 1990, and averaged annually at \$13.41 million for the 1981-1990 period. The recreational sector has been harvesting less than the commercial sector, but no valuation of total recreational benefits in the reef fish fishery is available. To the extent that the status is proposed to be maintained, the proposed regulation would have no impacts on this sector. The proposed regulation directly involves an increase in shallow-water commercial quota, but its impact on the economy is not expected to equal or exceed \$100 million annually. In addition, the price of reef fish products to consumers is expected to decrease as a direct result of a harvest increase. Fishing and associated costs are expected to remain unaffected by the proposed regulation. A one-time cost to the Council and NMFS of about \$22,500 has been incurred in the preparation of the proposed regulation. The impacts of the proposed rules have been estimated to be positive, and thus the proposed rules would not have adverse effects on competition, employment, investment, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets. In view of the foregoing discussion, it is concluded that this regulation, if enacted, would not constitute a "major rule" under any of the mentioned criteria.

Initial Regulatory Flexibility Analysis

Introduction: The purpose of the Regulatory Flexibility Act is to relieve small businesses, small organizations, and small governmental entities from burdensome regulations and record keeping requirements. Since small businesses will be affected by the regulations to be promulgated under FMPs and plan amendments, this document also serves as the Initial Regulatory Flexibility Analysis (IRFA). In addition to analyses conducted for the Regulatory Impact Review (RIR), the IRFA provides an estimate of the number of small businesses affected, a description of the small businesses affected, and a discussion of the nature and size of the impacts.

The Small Business Administration (SBA) defines a small business in the commercial fishing activity as a firm with receipts of up to \$2.0 million annually. The SBA defines a small business in the charter boat activity as a firm with receipts up to \$3.5 million per year. Most of the 1,800 permit holders readily fall within this definition of small business entities.

Determination of Significant Impact on a Substantial Number of Small Entities: In general, a regulation affecting more than 20 percent of subject small entities is construed to impact a "substantial number" of small entities (NMFS Guidelines on Regulatory Analyses of Fishery Management Actions, 1989). One of the criteria for a regulation to have a "significant impact" on small business entities that has direct relevance on the matter at hand is that such regulation is likely to result in an impact of more than 5 percent of the industry's annual gross revenues. The proposed increase in TAC would affect more than 20 percent of 1,800

commercial permittees, and would increase by about 8.7 percent the total gross ex-vessel revenues of the shallow-water grouper fishery. Thus, it is concluded that the proposed regulation would have a significant impact on a substantial number of small entities. Therefore, an IRFA is required. A RIR was done to satisfy the requirements of E.O. 12291 and the results of that analysis apply for the purposes of the IRFA since all the firms involved are small business entities. Therefore, most of this IRFA will consist of references to the RIR. Other information required for the IRFA is contained either in other sections of this framework adjustment or in the FMP, as amended, and will be referenced as appropriate.

Explanation of Why the Action is Being Considered: Refer to Section 3: Problem Requiring Framework Adjustment in this framework adjustment.

Objectives and Legal Basis for the Rule: Refer to Section 2: Management Objective and Optimum Yield in this framework adjustment.

Identification of Alternatives: Refer to Section 5 - Analysis of Management Measures in this framework adjustment.

Cost Analysis: Refer to Section 5 - Analysis of Management Measures in this framework adjustment.

Competitive Effects Analysis: The industry is composed of small businesses, and therefore there are no disproportional small vs. large business effects.

Identification of Overlapping Regulations: The proposed regulation does not create overlapping regulations with any state regulations or other Federal laws.

6. REFERENCES

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Muller, R. (chairman). 1991. Final report of the Reef Fish Assessment Panel (October, 1991). GMFMC. 34 p.

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Table 1
Red grouper TAC

Disc Mort Rate	Ref	Case											
		Pre Amend #1			Amend #1 (20")			18"			16"		
		F	Yld	SPR	F	Yld	SPR	F	Yld	SPR	F	Yld	SPR
0.00	F0.1	0.14	8.9	37.1	0.19	10.5	40.2	0.18	10.2	38.6	0.16	9.6	37.4
	Fmax	0.24	9.5	21.6	0.60	11.9	18.3	0.43	11.3	18.9	0.31	10.4	11.9
	Fcur	0.20	9.4	26.6	0.20	10.6	39.4	0.20	10.4	35.5	0.20	10.1	30.9
0.33	F0.1	0.14	8.9	37.1	0.15	8.8	41.9	0.15	9.0	40.1	0.15	9.1	38.1
	Fmax	0.24	9.5	21.6	0.26	9.4	27.8	0.27	9.7	25.1	0.26	9.7	22.5
	Fcur	0.20	9.4	26.6	0.20	9.2	34.6	0.20	9.5	32.3	0.20	9.6	29.4
0.50	F0.1	0.14	8.9	37.1	0.14	8.2	42.6	0.14	8.5	40.6	0.14	8.8	38.4
	Fmax	0.24	9.5	21.6	0.22	8.6	29.5	0.23	9.1	26.6	0.24	9.4	23.5
	Fcur	0.20	9.4	26.6	0.20	8.6	32.4	0.20	9.0	30.7	0.20	9.4	28.7
0.66	F0.1	0.14	8.9	37.1	0.13	7.7	42.9	0.13	8.2	41.0	0.14	8.6	38.6
	Fmax	0.24	9.5	21.6	0.20	8.1	30.5	0.21	8.6	27.7	0.23	9.2	24.3
	Fcur	0.20	9.4	26.6	0.20	8.1	30.4	0.20	8.6	29.3	0.20	9.1	28.0

TABLE 2

Shallow water grouper quotas.

Disc Mort Rate	Ref	Case											
		Pre Amend #1			Amend #1 (20")			18"			16"		
		F	Yld	SPR	F	Yld	SPR	F	Yld	SPR	F	Yld	SPR
0.00	F0.1	0.14	9.7	37.1	0.19	11.4	40.2	0.18	11.1	38.6	0.16	10.4	37.4
	Fmax	0.24	10.3	21.6	0.60	12.9	18.3	0.43	12.3	18.9	0.31	11.3	11.9
	Fcur	0.20	10.2	26.6	0.20	11.5	39.4	0.20	11.3	35.5	0.20	11.0	30.9
0.33	F0.1	0.14	9.7	37.1	0.15	9.6	41.9	0.15	9.8	40.1	0.15	9.9	38.1
	Fmax	0.24	10.3	21.6	0.26	10.2	27.8	0.27	10.5	25.1	0.26	10.5	22.5
	Fcur	0.20	10.2	26.6	0.20	10.0	34.6	0.20	10.3	32.3	0.20	10.4	29.4
0.50	F0.1	0.14	9.7	37.1	0.14	8.9	42.6	0.14	9.2	40.6	0.14	9.6	38.4
	Fmax	0.24	10.3	21.6	0.22	9.3	29.5	0.23	9.9	26.6	0.24	10.2	23.5
	Fcur	0.20	10.2	26.6	0.20	9.3	32.4	0.20	9.8	30.7	0.20	10.2	28.7
0.66	F0.1	0.14	9.7	37.1	0.13	8.4	42.9	0.13	8.9	41.0	0.14	9.3	38.6
	Fmax	0.24	10.3	21.6	0.20	8.8	30.5	0.21	9.3	27.7	0.23	10.0	24.3
	Fcur	0.20	10.2	26.6	0.20	8.8	30.4	0.20	9.3	29.3	0.20	9.9	28.0

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