

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)*

JULY 1991

Gulf of Mexico Fishery Management Council
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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 Plan, implemented in 1990 a 5 fish recreational bag limit and a 11.0 million pound commercial quota 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 quota and a 1.8 million pound deep-water quota. 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.

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 shallow-water grouper fishery was closed, based on projections, during the 1990 fishing year before the allowable quota of 9.2 million pounds was taken. Total 1990 landings of shallow water grouper were approximately 8.5 million pounds. The Council proposes to add the 0.7 million pounds that were not taken in 1990 to the 1991 shallow-water grouper quota increasing the 1991 quota to 9.9 million pounds.

4. ENVIRONMENTAL ASSESSMENT

Background

Amendment 1 to the Reef Fish FMP established annual quotas for restricting fishing mortality in the grouper and red snapper fisheries. The grouper quota was subdivided into deep-water and shallow-water quotas to accommodate the fisheries in the eastern Gulf which is primarily a shallow-water fishery and in the western Gulf which harvests primarily deep-water grouper. In 1990, the first year of quotas, the deep-water fishery did not harvest its allowable quota and remained open and the shallow-water fishery was closed on November 8, 1990 based on projected cumulative landings.

Quota monitoring requires timely data to accurately determine current landings. Landings statistics are obtained in the Gulf through a regional cooperative statistics program. Data are collected by state and federal port agents, processed by state and federal agencies and transferred to a central data base managed by the NMFS Southeast Fisheries Center. In Florida, wholesale or retail dealers who purchase fish at the first point of sale must submit completed trip ticket forms to Florida Department of Natural Resources monthly. However, for species such as groupers that have seasonal closures due to quotas, weekly reporting is required. Extensive editing is performed of the trip ticket information before it becomes available and available unedited data may even lag catch dates by a minimum of two months. In Alabama and Mississippi state or federal port agents visit wholesale seafood dealers and processors and record the amount and value of seafood products that were purchased by the firm during the preceding month. These landings data are generally available 60 days from the end of the month in which they were collected. Landings data in Louisiana and Texas is collected through monthly dealer reports that are mailed to the state fishery

management agency. These data are available 60 to 90 days from the end of the month in which purchases were made.

The shallow-water grouper fishery operates principally in the eastern Gulf landing most of the catch in Florida, consequently the trip ticket data system was the primary basis for landings information. The NMFS Reef Fish Quota Monitoring Panel (Panel) met in October 1990 for final projections of 1990 landings and estimation of closure dates. At that time landings were essentially complete through August for Florida and through June for the other Gulf states. For the projection of annual landings reported landings were assumed to be 90 percent complete in Florida and 85 percent complete in the other states, based on the percent of dealers who had reported landings. After adjusting reported landings for incomplete reporting, the monthly landings for the remainder of the year were estimated by assuming that the unknown monthly landings would consistently follow the same trend as in previous years (1987-1989). Projected annual landings were determined by dividing reported 1990 landings for each time period (August--Florida or June--other states) by the average proportion of landings in 1987-1989 for the same time period.

Description of and Need for Proposed Action

The Council proposes to set the shallow-water grouper quota for 1991 at 9.9 million pounds to provide the commercial fishery an opportunity to harvest the 0.7 million pounds that went unharvested in 1990 due to early closure of the fishery on November 8, 1990.

At the time of the October, 1990 Panel meeting the shallow-water grouper fishery had estimated cumulative landings of 7.2 million pounds through August in Florida and 0.16 million pounds through June in the western Gulf. Following the procedure outlined above the Panel estimated that the quota would be reached between the first and fifteenth of November. Accordingly the commercial fishery was closed on November 8, 1990 by the Regional Director for the remainder of the fishing year.

The Panel met again in June, 1991 to review 1990 landings and determined that total reported shallow-water grouper landings for 1990 were 8.5 million pounds, 0.7 million pounds less than the established quota of 9.2 million pounds. This 0.7 million pound variance is substantial enough to warrant adjusting the 1991 quota. The increase in the 1991 quota will provide the industry with the allowable catch established under Amendment 1 and will not impede the rebuilding program established for the grouper resource.

Alternatives to the Proposed Action

The alternative to the proposed action is status quo, to keep the 1991 quota at 9.2 million pounds. Status quo would deprive the commercial industry of 1 million dollars of revenue (see Section 5) that could be allowed under the Council's rebuilding program which, based on current information, would not put the resource at greater risk of overfishing. The Council also recognizes that a grouper stock assessment will be available by August 31, 1991. If the assessment indicates that the grouper resource is significantly more overfished than was determined in Amendment 1 then additional framework action may be necessary--including withdrawal of this action. However, due to the time required to implement regulatory action the Council cannot wait to review the assessment before determining to take this action because any delays in processing and implementing this action would prevent its effective implementation. This action must be fully

implemented before the end of October of this year to be effective before another closure of the fishery is implemented. In September the Council will review the stock assessment to determine if the action proposed in this framework adjustment is still appropriate.

Environmental Consequences

Physical Environment

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

Fishery Resource

The proposed action will allow harvest of about 0.7 million pounds over the currently established quota for the shallow-water grouper fishery. This increase should not lead to increased overfishing because it is simply a delay in harvest of fish that could have been caught in 1990. This one year delay in harvest benefits the resource through increased survival and growth from 1990 to 1991. However, marginally greater benefits would accumulate to the resource if the 1991 quota was not increased.

Human Environment

The addition of 0.7 million pounds to the 1991 shallow-water grouper quota will extend the fishing year for 3 to 4 weeks without impeding the rebuilding of the overfished grouper stocks to optimum yield levels, thus this action will be beneficial to the fishing industry.

Effect on Endangered Species and Marine Mammals

The proposed action will 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.

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:

Gulf of Mexico Fishery Management Council
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5. REGULATORY IMPACT REVIEW

Introduction

The RIR serves as the basis for determining whether any proposed regulations are major under criteria provided in Executive Order 12291 (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 Fishery Management Plan (FMP) would have on the commercial grouper fishery.

Problem in the Fishery

Amendment 1 of the Reef Fish FMP imposed restrictions on the harvest of groupers in the EEZ. One of these restrictions is a commercial harvest quota, which was set at 11 million pounds (MP) for the 1990 fishing season. This quota was subdivided into 9.2 MP for shallow-water groupers and 1.8 MP for deep-water groupers. Based on available information, it was determined that the quota for shallow-water groupers would be fished before the year's end (Report of the Gulf Reef Fish Review Panel, 1990), and the fishery (for shallow-water groupers) was subsequently closed on November 8, 1990. The 1990 deep-water grouper quota was not filled (as correctly projected), and the fishery remained open for the entire year. More recent records of actual reported landings for 1990 showed that up to the time of the closure, the total landings for shallow-water groupers amounted to 8.5 MP, which is about 0.7 MP less than the quota (Status Report on Gulf Reef Fish 1991 Quotas, 1991). The 1991 quotas for both shallow-water and deep-water groupers are the same as the respective 1990 quotas.

The specific problem addressed in this framework adjustment pertains to the treatment of the shortfall in the 1990 quota for shallow-water groupers. The Council decided to add the amount of the 1990 quota underrun of 0.7 MP to the 1991 quota for shallow-water groupers, provided the 1991 stock assessment for grouper supports such action.

Management Measures

Preferred Alternative: Set the 1991 quota for shallow-water groupers at 9.9 MP, which reflects the addition of 0.7 MP to the "basic" quota of 9.2 MP.

More definite and final determination of the impact of this action on the shallow-water grouper stock is delayed until the stock assessment of red groupers is available in September, 1991. For purposes of the current analysis, increasing the 1991 quota for shallow-water groupers is deemed to not impede the rebuilding of the shallow-water grouper stock.

The quota underrun is the result of the premature closure of the fishery, and the 0.7 MP underrun would likely have been taken by the commercial fishing sector had the fishery been left open for the entire year. In the period 1986-1989 when the fishery was relatively unregulated, the Gulfwide shallow-water grouper landings for November and December averaged at approximately 1.5 MP. Shallow-water landings for these two months showed no perceptible trend, but fluctuated from 1.3 MP in 1988 to 1.8 MP in 1986. Landings in 1989 for these two months were 1.6 MP. In all years,

except 1988, total annual landings exceeded 9.2 MP. The recorded landings in 1988 were approximately 7.8 MP, which is lower than the 1990 landings despite the fishery being open for the entire year. It is not readily ascertainable whether the low landings in 1988 could be attributed to stock, weather, or market conditions. If depressed stock was a reason, the increased landings in succeeding years could be due to increased effort in the fishery. The market, on the other hand, appeared to be relatively stable during the 1986-1990 period. Landings and prices in 1990 did not appear to differ substantially from the 1986-1989 average monthly landings and prices.

For purposes of estimating the amount of foregone ex-vessel revenues due to the closure, the average shallow-water grouper price in November and December for the period 1986-1989 is used together with the grouper demand estimated by Keithly and Prochaska (1985). For the period 1986-1989, the average November/December price for shallow-water groupers was \$1.70 per pound, or \$1.37 when deflated by the ex-vessel price index for edible finfish (1982 = 100). The 0.7 MP quota shortfall corresponds to an 8 percent reduction in catch. Using the estimated price flexibility for groupers of -0.4614, an 8 percent reduction in landings translates to a 3.69 percent increase in grouper price. After the reduction in catch, the November/December real price for groupers would be \$1.42 per pound. Approximately then, the 0.7 MP quota shortfall resulted in foregone ex-vessel revenues to the grouper fishery amounting to \$0.99 million in 1990 (in 1982 prices). This amount is about 8 percent of total ex-vessel revenues from shallow-water grouper landings in 1990 of \$12.53 million in real terms (\$15.53 million in 1990 current prices). When secondary effects on the regional economy were included, the loss would approximate \$1.86 million in sales, \$0.7 million in wages and salaries, and 50.1 in number of full-time equivalent jobs.¹ It is not possible to estimate the amount of industry and per boat loss in profits corresponding to the loss in ex-vessel sales due to lack of necessary information.

By adding the 0.7 MP to the 1991 quota, the commercial grouper fishery may recoup the losses incurred in 1990. Assuming that stock and market conditions do not significantly change in 1991 relative to 1990, the additional ex-vessel revenues to the commercial grouper fishery accruing to the additional quota should amount to about \$1.09 million (in 1982 prices). This is the 1991 value of the foregone ex-vessel revenues assuming a 10 percent interest rate.

This preferred option would have beneficial impacts on the commercial grouper fishery. Although there are no projected estimates on the ex-vessel revenues from shallow-water grouper landings for 1991, it is nevertheless likely that the additional ex-vessel revenues accruing to the increased quota would be slightly greater than 5 percent of total ex-vessel revenues from shallow-water groupers for 1991. Under the NMFS guidelines for regulatory impact review, this magnitude of effect may be construed to constitute a "significant" economic impact on the shallow-water grouper industry, albeit a positive one. As of May 31, 1991, there are about 1,451 commercial reef fish permits issued, with about 1,095 coming from Florida. Most likely affected by the measure are those with longline, hook and line bandit, and rod and reel permits from Florida. These affected permittees are deemed to comprise more than 20 percent of all permittees. In this regard, the preferred measure may also be considered to impact a "substantial" number of fishery participants.

¹The respective multipliers used are: sales = 1.8805, wages and salaries = 0.708, and employment = 50.6 per \$1 million dollars of ex-vessel sales.

This action sends a signal to the industry that, depending on the status of the stock, a quota underrun or overrun will affect the following year's quota. In general a quota tends to induce an increase in effort in the fishery. The proposed increase in quota tends to accelerate this increase in effort, particularly since the market for groupers has been relatively stable in the past few years. An increase in effort may also arise from the industry's desire to recoup the foregone revenues in the previous year.

The additional cost of management resulting from this measure is expected to be minimal. To some extent, the cost of monitoring the quota may be expected to be slightly lower since under the increased quota, the probability of an early closure is relatively low.

Rejected Alternative: Status quo: set the 1991 quota for shallow-water groupers at 9.2 MP.

This option does not have any short-run impacts. However, the revenues foregone in 1990 would not be recouped in the current year. To some extent, fish not harvested due to the closure would lower the cost of fishing in 1991, as relatively more fish would be available. This lower cost, however, would be tempered by the general increase in the price for fishing inputs. As it has been recognized that the grouper stock is overfished, this option presents a better long-run scenario for stock recovery than the preferred option.

Conclusions

The preferred alternative is expected to positively benefit the shallow-water grouper industry. If ex-vessel revenue losses in the 1990 season were fully recouped as a result of the preferred action, the industry could earn an additional \$1.09 million (in 1982 prices) in ex-vessel revenues. The preferred option is estimated to have a significant economic impact on the shallow-water grouper industry. This impact is also deemed to affect a substantial number of fishery participants.

6. REFERENCES

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