

**FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT/  
ENVIRONMENTAL ASSESSMENT**

This integrated document contains all elements of the Comprehensive Amendment, Final Supplemental Environmental Impact Statement (FSEIS)/Environmental Assessment (EA), Regulatory Impact Review (RIR), and Social Impact Assessment (SIA)/Fishery Impact Statement (FIS). The table of contents for the FSEIS/EA is provided separately to aid reviewers in referencing corresponding sections of the Amendment.

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(X) Final

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**SUMMARY**

A Final SEIS/EA is provided for the actions. To address the habitat-related requirements of the Magnuson-Stevens Act, the Council is proposing the following actions:

**Amendment 3 to the FMP for the Shrimp Fishery of the South Atlantic Region**

**ACTION 1.** Identify Essential Fish Habitat for Penaeid and Rock Shrimp.

**ACTION 2.** Establish Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPCs) for Penaeid Shrimp.

**ACTION 3.** Implement a Voluntary Vessel Monitoring System (VMS) as soon as Possible in the Rock Shrimp Fishery.

**Amendment 1 to the Fishery Management Plan for the Red Drum Fishery of the South Atlantic Region**

ACTION 1. Identify Essential Fish Habitat for Red Drum.

ACTION 2. Establish Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPCs) for Red Drum.

**Amendment 10 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region**

ACTION 1. Identify Essential Fish Habitat for Species in the Snapper Grouper Management Unit.

ACTION 2. Establish Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPCs) for Species in the Snapper Grouper Management Unit.

ACTION 3. No Action to Prohibit All Fishing in the Experimental Closed Area.

**Amendment 10 to the Fishery Management Plan for the Coastal Migratory Pelagics Fishery of the South Atlantic Region**

ACTION 1. Identify Essential Fish Habitat for Coastal Migratory Pelagics.

ACTION 2. Establish Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPCs) for Coastal Migratory Pelagics.

ACTION 3. No Action to Prohibit Fishing for Coastal Migratory Pelagics in the Experimental Closed Area.

**Amendment 1 to the Fishery Management Plan for the Golden Crab Fishery of the South Atlantic Region**

ACTION 1. Identify Essential Fish Habitat for Golden Crab.

ACTION 2. No Action to Establish Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPCs) for Golden Crab.

**Amendment 5 to the Fishery Management Plan for the Spiny Lobster Fishery of the South Atlantic Region**

ACTION 1. Identify Essential Fish Habitat for Spiny Lobster.

ACTION 2. Establish Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPCs) for Spiny Lobster.

ACTION 3. No Action to Prohibit Fishing for Spiny Lobster in the Experimental Closed Area.

**Amendment 4 to the Fishery Management Plan for Coral, Coral Reefs, and Live/Hard Bottom Habitats of the South Atlantic Region**

ACTION 1. Identify Essential Fish Habitat for Coral, Coral Reefs, and Live/Hard Bottom Habitats of the South Atlantic Region.

ACTION 2. Establish Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPCs) for Coral, Coral Reefs, and Live/Hard Bottom Habitats.

ACTION 3A. Expand the Oculina Bank Habitat Area of Particular Concern (HAPC) to an area bounded to the west by 80°W. longitude, to the north by 28°30' N. latitude, to the south by 27°30' N. latitude, and to the east by the 100 fathom (600 feet) depth contour.

ACTION 3B. Establish the following two Satellite Oculina HAPCs: (1) Satellite Oculina HAPC #1 is bounded on the north by 28°30'N. Latitude, on the south by 28°29'N. Latitude, on the east by 80°W. Longitude, and on the west by 80°3'W. Longitude, and (2) Satellite Oculina HAPC #2 is bounded on the north by 28°17'N. Latitude, on the south by 28°16'N. Latitude, on the east by 80°W. Longitude, and on the west by 80°3'W. Longitude.

ACTION 4. No Action to Prohibit All Fishing Within the Experimental Closed Area.

**FRAMEWORK PROCEDURE & ACTIVITIES AUTHORIZED BY SECRETARY**  
**Mechanism for Determination of Framework Adjustments/Framework Procedure and Activities Authorized by the Secretary of Commerce.**

Establish a procedure to allow for rapid modification to definitions of Essential Fish Habitat (EFH), and establishment of new, or modification of existing, Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPCs).

Public comments were received during public hearings held during June 1998 in St. Augustine, Florida; Richmond Hill, Georgia; Morehead, North Carolina; Charleston, South Carolina; Ft. Pierce, Florida; and Marathon, Florida. Public hearing comments are contained in a package dated August 1998. Limited copies are available from the Council.

The Council's Habitat and Coral Advisory Panel met in conjunction with the Habitat Committee August 11-13, 1998 in Charleston to review public comments and to comment on the draft Habitat Plan and Comprehensive Habitat Amendment.

Public comment was also taken on September 23, 1998 prior to the Council taking final action. Comments are included as part of the Council meeting minutes and are available from the Council.

One comment was received during the DSEIS/EA comment period and is contained in Appendix B. The Council addressed this comment and the response is also included in Appendix B.

DSEIS/EA to NMFS on: May 12, 1998  
Comments on DSEIS/EA requested by:

DSEIS/EA to EPA on: July 2, 1998  
August 24, 1998

FSEIS/EA to NMFS on: October 8, 1998  
Comments on FSEIS/EA requested by:

FSEIS/EA to EPA on: \_\_\_\_\_  
\_\_\_\_\_

**REGULATORY IMPACT REVIEW**

This integrated document contains all elements of the Comprehensive Amendment, Final Supplemental Environmental Impact Statement (FSEIS)/ Environmental Assessment (EA), Regulatory Impact Review (RIR), and Social Impact Assessment (SIA)/Fishery Impact Statement (FIS). A table of contents for the RIR is provided separately to aid the reviewer in referencing corresponding sections of the Amendment.

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**FRAMEWORK PROCEDURE & ACTIVITIES AUTHORIZED BY SECRETARY**

**Mechanism for Determination of Framework Adjustments/Framework Procedure and Activities Authorized by the Secretary of Commerce.**

Establish a procedure to allow for rapid modification to definitions of Essential Fish Habitat (EFH), and establishment of new, or modification of existing, Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPCs).	4.2.8	66
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## **INTRODUCTION**

The Regulatory Impact Review (RIR) is part of the process of developing and reviewing fishery management plans, amendments and seasonal adjustments, and is prepared by the Regional Fishery Management Councils with assistance from the National Marine Fisheries Service (NMFS), as necessary. The regulatory impact review provides a comprehensive review of the level and incidence of economic impact associated with the proposed regulatory actions. The purpose of the analysis is to ensure that the regulatory agency or Council systematically considers all available alternatives so that public welfare can be enhanced in the most efficient and cost effective way.

The National Marine Fisheries Service requires a 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 the regulatory agency systematically and comprehensively considers all available alternatives so that public welfare can be enhanced in the most efficient and cost effective way.

The RIR also serves as the basis for determining whether any proposed regulations are a “significant regulatory action” under certain criteria provided in Executive Order 12866 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) as amended by Public Law 104-121. 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, to the extent possible.

This RIR analyzes the probable impacts on the fishery and habitat of the proposed comprehensive amendment addressing essential fish habitat in Fishery Management Plans of the South Atlantic Region.

## **PROBLEMS AND OBJECTIVES**

The general problems and objectives are found in Section 1.5.

## **METHODOLOGY AND FRAMEWORK FOR ANALYSIS**

The basic approach adopted in this RIR is an assessment of management measures from the standpoint of determining the resulting changes in costs and benefits to society. The net effects should be stated in terms of producer and consumer surpluses for the harvesting, processing/dealer sectors and for consumers. Ideally, the expected present values of net yield streams over time associated with the different alternatives should be compared in evaluating the impacts. However, lack of data precludes this type of analysis. The approach taken in analyzing alternative management approaches is to describe and/or quantify the changes in short-term net benefits. A qualitative discussion of the long-term impacts is also included.

**Summary of Expected Changes in Net Benefits (Summary of Regulatory Impact Review)**

The Council’s preferred options are presented in the following table in **bold**.

Table 1. Summary of Expected Changes in Net Benefits.

<b>Proposed Actions &amp; Other Possible Options</b>	<b>Positive Impacts</b>	<b>Negative Impacts</b>	<b>Net Impacts</b>
<b>Penaeid and Rock Shrimp</b>			
<b>Proposed Action 1. Identify Essential Fish Habitat for Penaeid and Rock Shrimp.</b>	Possible increase in net benefits. Protects essential fish habitat.	None. However, other actions resulting from this action could have impacts on fishermen.	Likely positive in the long-term.
Other Possible Options:			
Option 1. No Action.	None.	Likely damage to essential fish habitat.	Likely negative in the long-term.
<b>Proposed Action 2. Establish EFH-HAPCs for Penaeid Shrimp.</b>	Possible increase in net benefits. Protects essential fish habitat.	None. However, other actions resulting from this action could have impacts on fishermen.	Likely positive in the long-term.
Other Possible Options:			
Option 1. No Action.	None.	Likely damage to essential fish habitat.	Likely negative in the long-term.

Table 1. (cont.) Summary of Expected Changes in Net Benefits.

<b>Proposed Actions &amp; Other Possible Options</b>	<b>Positive Impacts</b>	<b>Negative Impacts</b>	<b>Net Impacts</b>
<b>Penaeid and Rock Shrimp</b>			
<b>Proposed Action 3. Implement a Voluntary Vessel Monitoring System (VMS) as soon as possible in the Rock Shrimp Fishery.</b>	Demonstrate the efficiency of a monitoring system. Acts as safety insurance for vessels.	None as costs of voluntary program to be paid by NMFS.	Likely positive in the long-term.
Other Possible Options:			
Option 1. No Action.	None.	Possible decrease in net benefits and destruction to essential habitat.	Likely negative in the long-term.
Option 2. Require Use of Transponders by Rock Shrimp Vessels in the South Atlantic EEZ.	Improved effectiveness of monitoring system. Acts as safety insurance for vessels.	Estimated increase in operating cost estimated between \$2,050 and \$6,960 as initial setup cost.	Likely positive in the long-term.
Option 3. Require Use of Transponders by Rock Shrimp Vessels Fishing in the EEZ South of 28° 30' N. Latitude.	Improved effectiveness of monitoring system. Acts as safety insurance for vessels.	Increase in operating cost for vessels fishing in the EEZ South of 28° 30' estimated between \$2,050 and \$6,960 as initial setup cost.	Likely positive in the long-term.



Table 1. (cont.) Summary of Expected Changes in Net Benefits.

<b>Proposed Actions &amp; Other Possible Options</b>	<b>Positive Impacts</b>	<b>Negative Impacts</b>	<b>Net Impacts</b>
<b>Red Drum</b>			
<b>Proposed Action 1. Identify Essential Fish Habitat for Red Drum.</b>	Possible increase in net benefits. Protects essential fish habitat.	None. However, other actions resulting from this action could have impacts on fishermen.	Likely positive in the long-term.
Other Possible Options:			
Option 1. No Action.	None.	Likely damage to essential fish habitat.	Likely negative in the long-term.
<b>Proposed Action 2. Establish EFH-HAPCs for Red Drum.</b>	Possible increase in net benefits. Protects essential fish habitat.	None. However, other actions resulting from this action could have impacts on fishermen.	Likely positive in the long-term.
Other Possible Options:			
Option 1. No Action.	None.	Likely damage to essential fish habitat.	Likely negative in the long-term.

Table 1. (cont.) Summary of Expected Changes in Net Benefits.

<b>Proposed Actions &amp; Other Possible Options</b>	<b>Positive Impacts</b>	<b>Negative Impacts</b>	<b>Net Impacts</b>
<b>Snapper Grouper</b>			
<b>Proposed Action 1. Identify Essential Fish Habitat for Species in the Snapper Grouper Management Unit.</b>	Possible increase in net benefits. Protects essential fish habitat.	None. However, other actions resulting from this action could have impacts on fishermen.	Likely positive in the long-term.
Other Possible Options:			
Option 1. No Action.	None.	Likely damage to essential fish habitat.	Likely negative in the long-term.
<b>Proposed Action 2. Establish EFH-HAPCs for Species in the Snapper Grouper Management unit.</b>	Possible increase in net benefits. Protects essential fish habitat.	None. However, other actions resulting from this action could have impacts on fishermen.	Positive.
Other Possible Options:			
Option 1. No Action.	None.	Likely damage to essential fish habitat.	Likely negative.
<b>Proposed Action 3. No Action to Prohibit All Fishing in the Experimental Closed Area.</b>	None.	Possible decrease in net benefits.	Likely negative in the long-term.
Other Possible Options:			
Option 1. Prohibit All Fishing in the Experimental Closed Area.	Possible increase in net benefits and reduction in incidental catches of snapper grouper species.	Could reduce flow of revenue from recreational fishing activities to the local economy by up to \$5.0 million annually. Estimated decrease in commercial exvessel value of up to \$726,000 to coastal pelagics fishermen, and up to \$18,000 to spiny lobster fishermen in the first year.	Unknown.

Table 1. (cont.) Summary of Expected Changes in Net Benefits Continued.

<b>Proposed Actions &amp; Other Possible Options</b>	<b>Positive Impacts</b>	<b>Negative Impacts</b>	<b>Net Impacts</b>
<b>Coastal Migratory Pelagics</b>			
<b>Proposed Action 1. Identify Essential Fish Habitat for Coastal Migratory Pelagics.</b>	Possible increase in net benefits. Protects essential fish habitat.	None. However, other actions resulting from this action could have impacts on fishermen.	Likely positive in the long-term.
Other Possible Options:			
Option 1. No Action.	None.	Likely damage to essential fish habitat.	Likely negative in the long-term.
<b>Proposed Action 2. Establish EFH-HAPCs for Coastal Migratory Pelagics.</b>	Possible increase in net benefits. Protects essential fish habitat.	None. However, other actions resulting from this action could have impacts on fishermen.	Likely positive in the long-term.
Other Possible Options:			
Option 1. No Action.	None.	Likely damage to essential fish habitat.	Likely negative in the long-term.
<b>Proposed Action 3. No Action to Prohibit Fishing for Coastal Migratory Pelagics in the Experimental Closed Area.</b>	None.	Possible decrease in net benefits.	Likely negative in the long-term.
Other Possible Options:			
Option 1. Prohibit Fishing for Coastal Migratory Pelagics in the Experimental Closed Area.	Possible increase in net benefits.	Decrease in exvessel value of up to \$726,000 in the first year.	Likely positive in the long-term.

Table 1. (cont.) Summary of Expected Changes in Net Benefits Continued.

<b>Proposed Actions &amp; Other Possible Options</b>	<b>Positive Impacts</b>	<b>Negative Impacts</b>	<b>Net Impacts</b>
<b>Golden Crab</b>			
<b>Proposed Action 1. Identify Essential Fish Habitat for Golden Crab.</b>	Possible increase in net benefits. Protects essential fish habitat.	None. However, other actions resulting from this action could have impacts on fishermen.	Likely positive in the long-term.
Other Possible Options:			
Option 1. No Action.	None.	Likely damage to essential fish habitat.	Likely negative in the long-term.
<b>Proposed Action 2. No Action to Establish EFH-HAPCs for Golden Crab.</b>	None.	Possible decrease in net benefits.	Likely negative in the long-term.
Other Possible Options:			
Option 1. Establish EFH-HAPCs for Golden Crab.	Possible increase in net benefits. Protects essential fish habitat.	None. However, other actions resulting from this action could have impacts on fishermen.	Likely positive in the long-term.

<b>Spiny Lobster</b>			
<b>Proposed Action 1. Identify Essential Fish Habitat for Spiny Lobster.</b>	Possible increase in net benefits. Protects essential fish habitat.	None. However, other actions resulting from this action could have impacts on fishermen.	Likely positive in the long-term.
Other Possible Options:			
Option 1. No Action.	None.	Likely damage to essential fish habitat.	Likely negative in the long-term.
<b>Proposed Action 2. Establish EFH-HAPCs for Spiny Lobster.</b>	Possible increase in net benefits. Protects essential fish habitat.	None. However, other actions resulting from this action could have impacts on fishermen.	Likely positive in the long-term.
Other Possible Options:			
Option 1. No Action.	None.	Likely damage to essential fish habitat.	Likely negative in the long-term.
<b>Proposed Action 3. No Action to Prohibit Fishing for Spiny Lobster in the Experimental Closed Area</b>	None.	Possible decrease in net benefits.	Likely negative in the long-term.
Other Possible Options:			
Option 1. Prohibit Fishing for Spiny Lobster in the Experimental Closed Area	Possible increase in net benefits.	Decrease in exvessel value of up to \$18,000 in the first year.	Likely positive in the long-term.

Table 1. (cont.) Summary of Expected Changes in Net Benefits Continued.

<b>Proposed Actions &amp; Other Possible Options</b>	<b>Positive Impacts</b>	<b>Negative Impacts</b>	<b>Net Impacts</b>
<b>Coral, Coral Reefs, and Live/Hard Bottom Habitat</b>			
<b>Proposed Action 1. Identify Essential Fish Habitat for Coral, Coral Reefs, and Live/Hard Bottom Habitats of the South Atlantic Region.</b>	Possible increase in net benefits. Protects essential fish habitat.	None. However, other actions resulting from this action could have impacts on fishermen.	Likely positive in the long-term.
Other Possible Options:			
Option 1. No Action.	None.	Likely damage to essential fish habitat.	Likely negative in the long-term.
<b>Proposed Action 2. Establish EFH-HAPCs for Coral, Coral Reefs, and Live/Hard Bottom Habitats.</b>	Possible increase in net benefits. Protects essential fish habitat.	None. However, other actions resulting from this action could have impacts on fishermen.	Likely positive in the long-term.
Other Possible Options:			
Option 1. No Action.	None.	Likely damage to essential fish habitat.	Likely negative in the long-term.
<b>ACTION 3A. Expand the Oculina Bank Habitat Area of Particular Concern (HAPC) to an area bounded to the west by 80°W longitude, to the north by 28°30' N latitude, to the south by 27°30' N latitude, and to the east by the 100 fathom (600 feet) depth contour.</b>	Possible increase in net benefits.	Potential decrease in exvessel value for calico scallop fishermen presently fishing this area.	Likely positive in the long-term.

Table 1. (cont.) Summary of Expected Changes in Net Benefits Continued.

<b>Proposed Actions &amp; Other Possible Options</b>	<b>Positive Impacts</b>	<b>Negative Impacts</b>	<b>Net Impacts</b>
<b>Coral Action 3 Continued:</b>			
<b>ACTION 3B. Establish the following two Satellite Oculina HAPCs: (1) Satellite Oculina HAPC #1 is bounded on the north by 28°30'N. Latitude, on the south by 28°29'N. Latitude, on the east by 80°W. Longitude, and on the west by 80°3'W. Longitude, and (2) Satellite Oculina HAPC #2 is bounded on the north by 28°17'N. Latitude, on the south by 28°16'N. Latitude, on the east by 80°W. Longitude, and on the west by 80°3'W. Longitude.</b>	Possible increase in net benefits.	None because fishermen have stated they do not direct harvest for calico scallops in these areas.	Likely positive in the long-term.
Other Possible Options:			
Option 1. No Action.	None.	Possible decrease in net benefits.	Likely negative in the long-term.
Option 2. Expand the Oculina Bank Habitat Area of Particular Concern (HAPC) by 1-5 miles on the western side between 27°30' N latitude and 28°30' N latitude.	Possible increase in net benefits.	Potential decrease in exvessel value for calico scallop fishermen presently fishing this area. Decrease is estimated at up to \$914,613 in the first year.	Likely positive in the long-term.
<b>Action 4. No Action to Prohibit all Fishing within the Experimental Closed Area.</b>	None.	Possible decrease in net benefits and destruction to essential habitat in the long-term.	Likely negative in the long-term.

Table 1. (cont.) Summary of Expected Changes in Net Benefits.

<b>Proposed Actions &amp; Other Possible Options</b>	<b>Positive Impacts</b>	<b>Negative Impacts</b>	<b>Net Impacts</b>
Other Possible Options:			
Option 1. Prohibit all fishing within the experimental closed area.	Possible increase in net benefits. Protects essential fish habitat.	Estimated decrease in commercial exvessel value of up to \$726,000 to coastal pelagics fishermen, and up to \$18,000 to spiny lobster fishermen in the first year. Estimated decrease in annual revenue of up to \$5,000,000 to the local economy from recreational fishing activities.	Unknown.
<b>Framework</b>			
<b>Proposed Action 1. Mechanism for Determination of Framework Adjustments/Framework Procedure and Activities Authorized by the Secretary of Commerce.</b> Establish a procedure to allow for rapid modification to definitions of Essential Fish Habitat (EFH), and establishment of new, or modification of existing, Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPCs).	Possible increase in net benefits. Protects essential fish habitat.	None. However, other actions resulting from this action could have impacts on fishermen.	Likely positive in the long-term.
Other Possible Options:			
Option 1. No Action.	None.	Likely damage to essential fish habitat.	Likely negative in the long-term.

**SOCIAL IMPACT ASSESSMENT/FISHERY IMPACT STATEMENT**

This integrated document contains all elements of the Comprehensive Amendment, Final Supplemental Environmental Impact Statement (FSEIS)/ Environmental Assessment (EA), Regulatory Impact Review (RIR), and Social Impact Assessment (SIA)/Fishery Impact Statement (FIS). A table of contents for the SIA/FIS is provided separately to aid reviewers in referencing corresponding sections of the Amendment.

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**Amendment 5 to the Fishery Management Plan for the Spiny Lobster Fishery of the South Atlantic Region**

- ACTION 1. Identify Essential Fish Habitat for Spiny Lobster. 46
- ACTION 2. Establish Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPCs) for Spiny Lobster. 48
- ACTION 3. No Action to Prohibit Fishing for Spiny Lobster in the Experimental Closed Area. 49

**Amendment 4 to the Fishery Management Plan for Coral, Coral Reefs, and Live/Hard Bottom Habitats of the South Atlantic Region**

- ACTION 1. Identify Essential Fish Habitat for Coral, Coral Reefs, and Live/Hard Bottom Habitats of the South Atlantic Region. 51
- ACTION 2. Establish Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPCs) for Coral, Coral Reefs, and Live/Hard Bottom Habitats. 53
- ACTION 3A. Expand the Oculina Bank Habitat Area of Particular Concern (HAPC) to an area bounded to the west by 80°W. longitude, to the north by 28°30' N. latitude, to the south by 27°30' N. latitude, and to the east by the 100 fathom (600 feet) depth contour. 54
- ACTION 3B. Establish the following two Satellite Oculina HAPCs: (1) Satellite Oculina HAPC #1 is bounded on the north by 28°30'N. Latitude, on the south by 28°29'N. Latitude, on the east by 80°W. Longitude, and on the west by 80°3'W. Longitude, and (2) Satellite Oculina HAPC #2 is bounded on the north by 28°17'N. Latitude, on the south by 28°16'N. Latitude, on the east by 80°W. Longitude, and on the west by 80°3'W. Longitude. 62
- ACTION 4. No Action to Prohibit All Fishing within the Experimental Closed Area. 64

**FRAMEWORK PROCEDURES & ACTIVITIES AUTHORIZED BY SECRETARY  
Mechanism for Determination of Framework Adjustments/Framework Procedure  
and Activities Authorized by the Secretary of Commerce.**

- Establish a procedure to allow for rapid modification to definitions of Essential Fish Habitat (EFH), and establishment of new, or modification of existing, Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPCs). 66

## INTRODUCTION

Mandates to conduct Social Impact Assessments (SIA) come from both the National Environmental Policy Act (NEPA) and the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). NEPA requires Federal agencies to consider the interactions of natural and human environments by using a “systematic, interdisciplinary approach which will ensure the integrated use of the natural and social sciences...in planning and decision-making” [NEPA section 102 (2) (a)]. Under the Council on Environmental Quality’s (CEQ, 1986) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act a clarification of the terms “human environment” expanded the interpretation to include the relationship of people with their natural and physical environment (40 CFR 1508.14). Moreover, agencies need to address the aesthetic, historic, cultural, economic, social, or health effects which may be direct, indirect or cumulative (Interorganizational Committee on Guidelines and Principles for Social Impact Assessment, 1994).

Under the MSFCMA, fishery management plans (FMPs) must “...achieve and maintain, on a continuing basis, the optimum yield from each fishery” [MSFCMA section 2 (b) (4)]. When considering “a system for limiting access to the fishery in order to achieve optimum yield” the Secretary of Commerce and Regional Fishery Management Councils are to consider both the social and economic impacts of the system [MSFCMA section 303 (b) (6)]. Recent amendments to the MSFCMA require that FMPs address the impacts of any management measures on the participants in the affected fishery and those participants in other fisheries that may be affected directly or indirectly through the inclusion of a fishery impact statement [MSFCMA section 303 (a) (9)]. Most recently, with the addition of National Standard 8, FMPs must now consider the impacts upon fishing communities to assure their sustained participation and minimize adverse economic impacts upon those communities [MSFCMA section 301 (a) (8)]. Consideration of social impacts is a growing concern as fisheries experience increased participation and/or declines in stocks. With an increasing need for management action, the consequences of such changes need to be examined in order to mitigate the negative impacts experienced by the populations concerned.

## PROBLEMS AND METHODS

Social impacts are generally the consequences to human populations that follow from some type of public or private action. Those consequences may include alterations to “the ways in which people live, work or play, relate to one another, organize to meet their needs and generally cope as members of a society....” (Interorganizational Committee on Guidelines and Principles for Social Impact Assessment, 1994:1). In addition, cultural impacts which may involve changes in values and beliefs which affect people’s way of identifying themselves within their occupation, communities and society in general are included under this interpretation. Social impact analyses help determine the consequences of policy action in advance by comparing the status quo with the projected impacts. Therefore, it is extremely important that as much information as possible concerning a fishery and its participants be gathered for an assessment. Although public hearings and scoping meetings do provide input from those concerned with a particular action, they do not constitute a full overview of the fishery.

Without access to relevant information for conducting social impact analyses it is important to identify any foreseeable adverse effects on the human environment. With quantitative data often lacking, qualitative data can be used to provide a rough estimate of some impacts. In addition, when there is a body of empirical findings available from the social science literature, it needs to be summarized and referenced in the analysis.

In attempting to assess the social impacts of the proposed amendment it must be noted that data used for this analysis did not represent a comprehensive overview of the fisheries therefore the analyses do not include all social impacts. Social impacts on non-commercial harvesters, the processing sector, the consumer, fishing communities and society as a whole are not fully addressed due to data limitations. The fishery impact statement consists of the description of the commercial fishery and the social impacts under each action item and options. There is presently no information or sufficient guidelines to define or determine impacts upon fishing communities.

### **SOCIAL IMPACT ASSESSMENT DATA NEEDS**

The recent socio-demographic survey and economic surveys conducted with snapper grouper fishermen were snapshots of the commercial fishery. To provide better assessments socio-economic data need to be collected on a continuing basis for both the commercial and recreational sectors, including the for-hire sector, on all fisheries. Collecting social and economic information in logbooks would be one manner of providing this information on a continuing basis for the commercial sector. Social and economic add-ons to the MRFSS data collection system can provide this type of data for recreational fishermen. In addition, information on fishing communities in the South Atlantic is virtually non-existent. Fishing communities need to be identified and their dependence upon fishing and fishery resources needs to be established. The following list of data needs is provided as a guideline:

1. Demographic information may include but not necessarily limited to: population; age; gender; ethnic/race; education; language; marital status; children, (age & gender); residence; household size; household income, (fishing/non-fishing); occupational skills; association with vessels & firms (role & status).
2. Social Structure information may include but not necessarily limited to: historical participation; description of work patterns; kinship unit, size and structure; organization & affiliation; patterns of communication and cooperation; competition and conflict; spousal and household processes; and communication and integration.
3. Emic culture information may include but not necessarily limited to: occupational motivation and satisfaction; attitudes and perceptions concerning management; constituent views of their personal future of fishing; psycho-social well-being; and cultural traditions related to fishing (identity and meaning).
4. Fishing community information might include but not necessarily limited to: identifying communities, dependence upon fishery resources (this includes recreational use), identifying businesses related to that dependence, determine the number of employees within these businesses and their status.

This list of data needs is not exhaustive or all inclusive. The upcoming issues within the South Atlantic will undoubtedly focus upon allocation and the need for reliable and valid information concerning the social environment will become necessary for managing fisheries. A further recommendation might be for the NMFS to review and implement the “Southeast Social and Cultural Data and Analysis Plan” as this would address many of the current data needs.

**SOCIAL IMPACT SUMMARY**

Table 2. Social impact (SIA/FIS) summary.

<b>ACTION</b>	<b>SOCIAL IMPACTS</b>
<b>Penaeid and Rock Shrimp</b>	
<b>ACTION 1.</b> Identify Essential Fish Habitat for Penaeid and Rock Shrimp.	There would be few social impacts from identifying essential fish habitat itself.
<b>ACTION 2.</b> Establish EFH-HAPCs for Penaeid Shrimp.	The establishment of EFH-HAPCs will have few, if any, social impacts itself. Impacts may result from future management measures.
<b>ACTION 3.</b> Implement a Voluntary Vessel Monitoring System (VMS) as soon as possible in the Rock Shrimp Fishery.	Sentiments expressed by industry through the public hearing process in 1994 indicated some dislike for this type of monitoring system. Some of this resistance is due to unfamiliarity with the use and implementation of a vessel monitoring system. The expense of installing VMS is often mentioned as a major detractor also. However, the expense is relative to the type of system that would be required. As commercial fishermen become more acquainted with these systems and realize the benefits to be gained by using such monitoring systems, levels of acceptance may change. The Rock Shrimp Advisory Panel supports this voluntary program which should bring positive social impacts to this process of technology transfer.
<b>Red Drum</b>	
<b>ACTION 1.</b> Identify Essential Fish Habitat for Red Drum.	There would be few social impacts from identifying essential fish habitat itself.
<b>ACTION 2.</b> Establish EFH-HAPCs for Red Drum.	The establishment of EFH-HAPCs will have few, if any, social impacts itself. Impacts may result from future management measures.

Table 2. (cont.) Social impact (SIA/FIS) summary.

ACTION	SOCIAL IMPACTS
<b>Snapper Grouper</b>	
<b>ACTION 1.</b> Identify Essential Fish Habitat for Species in the Snapper Grouper Management Unit.	There would be few social impacts from identifying essential fish habitat itself.
<b>ACTION 2.</b> Establish EFH-HAPCs for Species in the Snapper Grouper Management Unit.	The establishment of EFH-HAPCs will have few, if any, social impacts itself. Impacts may result from future management measures.
<b>ACTION 3.</b> No Action to Prohibit All Fishing in the Experimental Closed Area.	The social impacts from no action will be positive in light of public testimony outlining the negative social and economic impacts of the prohibition.
<b>Coastal Migratory Pelagics</b>	
<b>ACTION 1.</b> Identify Essential Fish Habitat for Coastal Migratory Pelagics.	There would be few social impacts from identifying essential fish habitat itself.
<b>ACTION 2.</b> Establish EFH-HAPCs for Coastal Pelagics.	The establishment of EFH-HAPCs will have few, if any, social impacts itself. Impacts may result from future management measures.
<b>ACTION 3.</b> No Action to Prohibit Fishing for Coastal Migratory Pelagics in the Experimental Closed Area.	Testimony during public hearings suggest that this area is important to tournament fishermen. Because of the social and economic impacts of the prohibition, the social impacts of no action will be positive.
<b>Golden Crab</b>	
<b>ACTION 1.</b> Identify Essential Fish Habitat for Golden Crab.	There would be few social impacts from identifying essential fish habitat itself.
<b>ACTION 2.</b> No Action to Establish EFH-HAPCs for Golden Crab.	None.
<b>Spiny Lobster</b>	
<b>ACTION 1.</b> Identify Essential Fish Habitat for Spiny Lobster.	There would be few social impacts from identifying essential fish habitat itself.
<b>ACTION 2.</b> Establish EFH-HAPCs for Spiny Lobster.	The establishment of EFH-HAPCs will have few, if any, social impacts itself. Impacts may result from future management measures.
<b>ACTION 3.</b> No Action to Prohibit Fishing for Spiny Lobster in the Experimental Closed Area.	The social impacts from no action should be positive. Public testimony suggest this area is an important recreational fishing area for regional fishermen.

Table 2. (cont.) Social impact (SIA/FIS) summary.

ACTION	SOCIAL IMPACTS
<b>Coral, Coral Reefs, and Live/Hard Bottom Habitat</b>	
<b>ACTION 1.</b> Identify Essential Fish Habitat for Coral, Coral Reefs, and Live/Hard Bottom Habitats of the South Atlantic Region	There would be few social impacts from identifying essential fish habitat itself.
<b>ACTION 2.</b> Establish EFH-HAPCs for Coral, Coral Reefs, and Live/Hard Bottom.	The establishment of EFH-HAPCs will have few, if any, social impacts itself. Impacts may result from future management measures.
<b>ACTION 3A.</b> Expand the Oculina Bank Habitat Area of Particular Concern (HAPC) to an area bounded to the west by 80°W longitude, to the north by 28°30' N latitude, to the south by 27°30' N latitude, and to the east by the 100 fathom (600 feet) depth contour.	This area corresponds to the current area closed to rock shrimping. One impact is that rock shrimpers will see some equity in this area being closed to other types of gear identified as being destructive of hard bottom.

Table 2. (cont.) Social impact (SIA/FIS) summary.

<b>ACTION</b>	<b>SOCIAL IMPACTS</b>
<b>Coral, Coral Reefs, and Live/Hard Bottom Habitat</b>	
<p><b>ACTION 3B.</b> Establish the following two Satellite Oculina HAPCs: (1) Satellite Oculina HAPC #1 is bounded on the north by 28°30’N. Latitude, on the south by 28°29’N. Latitude, on the east by 80°W. Longitude, and on the west by 80°3’W. Longitude, and (2) Satellite Oculina HAPC #2 is bounded on the north by 28°17’N. Latitude, on the south by 28°16’N. Latitude, on the east by 80°W. Longitude, and on the west by 80°3’W. Longitude.</p>	<p>Establishing satellite HAPCs should accomplish both the goals of the Council to protect coral and to not unnecessarily adversely impact the trawl fisheries which operate in this area. Anecdotal information from rock shrimpers and calico scallop fishermen indicates that they routinely fish within 1 mile of the western boundary of the Oculina Bank and north. By establishing the satellite HAPCs, fishermen should be able to fish productive grounds without much intrusion on their normal operation. The Council will be able to meet new mandates and protect important outcroppings of coral. Social impacts will be beneficial.</p>
<p><b>ACTION 4.</b> No Action to Prohibit all Fishing Within the Experimental Closed Area.</p>	<p>The social impacts from no action will be positive in light of public testimony outlining the negative social and economic impacts of the prohibition. This area is important to regional fishermen, especially during tournaments.</p>
<b>Framework</b>	
<p><b>ACTION 1.</b> Mechanism for Determination of Framework Adjustments.</p>	<p>There would be few social impacts from identifying essential fish habitat itself.</p>