

**AMENDMENT #3**  
**TO THE**  
**FISHERY MANAGEMENT PLAN**  
**FOR THE**  
**NORTHEAST MULTISPECIES FISHERY**

INCORPORATING AN  
ENVIRONMENTAL ASSESSMENT  
AND  
SUPPLEMENTAL REGULATORY IMPACT REVIEW/  
REGULATORY FLEXIBILITY ANALYSIS

Prepared by

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in consultation with

Mid-Atlantic Fishery Management Council

**August 17, 1989**

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    and the Supplemental Regulatory Flexibility Analysis

## **I. INTRODUCTION**

The New England Fishery Management Council proposes to amend the Northeast Multispecies Fishery Management Plan (Multispecies FMP). The Multispecies FMP was conditionally approved by the Northeast Regional Director of the National Marine Fisheries Service on July 17, 1986. Regulations implementing the Multispecies FMP were promulgated by the Department of Commerce (NOAA) on August 20, 1986 and became effective on September 15, 1986. Amendment #1 to the Multispecies FMP, which was implemented on October 1, 1987, responded to deficiencies that were identified by the Regional Director in his conditional approval of the plan. Amendment #2, which was implemented in January 1989, improved the effectiveness of several of the existing FMP measures in relation to two major factors: 1) the promotion of regulatory compliance, and 2) the long-term achievement of management objectives. The amendment also adopted a management measure that had previously been implemented in February 1988 as an emergency action.

## **II. PURPOSE AND NEED FOR ACTION**

The FMP, as amended, constitutes a process by which management measures are initially designed and implemented to bring about the achievement of long-term goals, and those measures are continually reviewed, evaluated and refined as necessary to ensure that changing circumstances are accounted for. The continuing management process is responsive to changes in the structure and operation of the fishery, new scientific information on the resource, and the capability of governmental agencies to administer and enforce management regulations.

Amendment #3 is being proposed for implementation as part of the Council's commitment to continuing management that is described in Part 8 of the original FMP document. In developing Amendment #3, the Council is responding to information obtained through the continuing management process, including the input from a series of seven regional public hearings. The proposed measures detailed in Part III(b) of this document reflect actions that the Council believes are necessary and appropriate for the achievement of the Council's objectives for managing the multispecies fishery. It remains possible that other measures might be needed to support the management program in the future. The process of continuing management, to which the Council has committed itself, is expected to bring forth modifications that are justifiable, credible, timely, and scientifically sound.

The purpose of Amendment #3 is to enable the management system, including the New England Fishery Management Council, its Multispecies Committee, the National Marine Fisheries Service and other management agencies to respond in a timely manner to protect large concentrations of juvenile, sublegal (smaller than the minimum legal size) and spawning fish. Under this system, the type of management measures which already have been approved in the Multispecies FMP such as the implementation of the regulated mesh size (5-1/2"), limits on the bycatch of regulated species and limited closed areas to all or certain gear types could be implemented, in limited areas for not more than six months. This type of system is needed for a number of reasons: 1) To enhance age-at-entry controls to better enable the Multispecies FMP to achieve its objectives; 2) To eliminate the need for the type of emergency actions which were most recently implemented in the Northeast Multispecies fishery; and 3) To be able to respond to requests from the fishing industry for timely action in a way that improves the climate for cooperation and progress between the

Council and the fishing industry.

**Enhancement of age-at-entry** Minimum size regulations do not protect concentrations of small or spawning fish under certain conditions. If a sufficient number of marketable fish are present in the same area as small fish, fishermen might continue to fish in that area, sometimes very intensely. Even if the mesh size is regulated, large quantities of small fish can block the mesh openings and a large amount of small fish can be caught and discarded. This scenario occurred most recently in the Nantucket Shoals area where large concentrations of small codfish were intermingled with some legal size cod in the winter of 1987-88 and December 1988. The typical discard on commercial tows reported by the Massachusetts Division of Marine Fisheries was 70-80% of the codfish caught. Most of the small cod were between 11 and 14 inches long. A number of random samples yielded a discard rate of 73%. The amount of wasted fish was so large that fishermen requested that the Council implement seasonal mesh regulations in this area.

A more serious situation of this type also occurred in 1977 on Georges Bank when most of the last very large year class of haddock recruiting to that fishery was wasted despite the quota management system at that time. Estimated discards of haddock were about 24 million pounds (Overholtz, Clark & White, 1983) compared to total U.S. landings of 28.4 million pounds. The potential, undiscounted ex-vessel revenue from these discards under prevailing growth and natural mortality rates is estimated to have been \$67 million. An estimated three times as many age 2 haddock recruiting to the fishery were discarded as were landed. The amount of small haddock was about 3.5 times greater than the total weight of U.S. haddock landings in 1987. Although estimates were not made, data collected from sea sampling and industry reports indicate that very large numbers of the moderately strong 1978 year class of haddock were also discarded in 1980 (Overholtz, Clark & White, 1983).

If concentrations of small fish occur in an area where mesh size is unregulated, as they did in Southern New England in January through March 1989 when large amounts of small yellowtail flounder were originally taken along with butterfish and later in a directed fishery for yellowtail, an even greater amount of small fish will be wasted. In samples taken with commercial fishing gear, only 27% of the yellowtail flounder caught were of legal size in one area and only 16% in another. Potential losses of yellowtail flounder from this discarding exceeded landings by a factor of 4 to 6 times.

In its Report to New England Fishery Management Council's Demersal Finfish Committee, the Technical Monitoring Group (TMG) stated,

"A retrospective analysis conducted by the Northeast Fisheries Center and reviewed at the 5th Stock Assessment Workshop, indicated that the average age-at-entry for cod and haddock during the early to mid 1980s was consistent with that which would have resulted from the widespread use of 4-1/2 inch mesh."

Although there are several reasons why age-at-entry controls have not been completely effective, some of which have been addressed in Amendment #2 to the Multispecies FMP, the Council believes that the inability of the present management measures to protect large concentrations of small fish through a flexible mechanism is a major flaw in the existing age-at-entry controls.

**Reduce the need for emergency actions** There are several reasons why the Council feels that it is imperative to eliminate the need for emergency actions in response to problems associated with large concentrations of small or spawning fish. First, in the time required to initiate and implement emergency actions, enormous amounts of small fish can be discarded. It takes a substantial amount of time simply to get the problem discussed at a scheduled Council or Committee meeting. The implementation of emergency action to reduce the catch of small codfish on Nantucket Shoals in the winter of 1987-88 took over two months after the problem first came to the Council's attention. By the time it was implemented, most of the damage to these fish had already occurred. Similar

emergency action taken to reduce the catch of small yellowtail flounder in Southern New England in the winter of 1989 took 54 days to implement from the time of the Council's decision to do so. Again, the time needed to implement the action greatly reduced its effectiveness.

Second, emergency actions allow for less public input than would the proposed measure. These actions do not require a formal public comment period and there is usually considerable pressure for any action to be initiated as quickly as possible because of the urgency and the short duration of concentrations of small or spawning fish. Third, these types of problems should be anticipated and managed to the extent possible by the FMP. Finally, the emergency actions require considerable time and resources from NMFS, the Council and the Council Staff. In the past two years the New England Council and its staff have spent much time initiating and justifying the two emergency actions described above. This has delayed the Council's consideration of more fundamental management issues concerning the multispecies fishery.

**Industry Input & Cooperation** Even before the implementation of the Interim Groundfish FMP in 1982, various groups within the New England fishing industry proposed that the Council implement a system such as the Flexible Area Action System in order to respond to the problems which have been identified. Too often, measures instituted by the the Council, and before it, NMFS and the International Commission for Northwest Atlantic Fisheries have included: 1) spawning area closures that no longer corresponded to the seasonal and geographical distribution of spawning fish; 2) mesh and minimum size regulations which could not be modified to protect large concentrations of small fish; 3) closed areas that could not be reopened when conditions no longer warranted the closures; and 4) an inability of management authorities to respond in a timely manner to information provided them by conservation minded fishermen. As a result, fishermen often perceive the management system as rigid, illogical and unable to solve some straightforward problems.

The Council initiated both the emergency actions for cod on Nantucket Shoals and yellowtail flounder in Southern New England in response to fishing industry concerns, yet these measures were not as effective as they should have been because they took too long to implement. Most fishermen are not acquainted with the regulatory process and cannot understand why fisheries managers cannot quickly correct what seem to be simple but important problems, especially in comparison to the relatively short amount of time that some of the states can resolve similar problems.

The Flexible Area Action System is designed to enable the Council to respond to similar situations more quickly. It will also provide greater flexibility in defining the area and time period for changes in fishing regulations, provide a mechanism for the action to be ended if it is no longer appropriate and save substantial management resources by eliminating the need for the corresponding type of emergency actions recently taken by the Council. The flexibility to end the action if no longer warranted is important to minimize the costs imposed on the industry.

### III. DESCRIPTION OF ALTERNATIVES AND THEIR IMPACTS

#### A. No Action Alternative

The "no action alternative" to the proposals in this amendment is to maintain the regulatory status quo. It is not realistic for two reasons. First, it is clear that the age-at-entry controls contained

in the Multispecies FMP need to be enhanced by protecting large concentrations of juvenile, sublegal and spawning fish (see the discussion of age-at-entry controls in Section II). Second, it is apparent these concentrations of fish will continue to reoccur in unpredictable ways in terms of both time and location (refer to **Biological Considerations** under the discussion of the preferred alternative). Because these occurrences are not predictable, they cannot be managed through existing mechanisms. As long as these situations occur, there will be a need for the type of emergency actions which the Council and the National Marine Fisheries Service are trying to avoid.

## **B. Other Alternatives**

The Council believes that the proposed system is needed regardless of the overall approach to fisheries management. Section II (Purpose and Need for Action) described how problems associated with large concentrations of small fish were not addressed under a quota management system. Similarly, other general types of management systems such as effort controls or limited access do not specifically solve these problems.

Under the proposed measure any type of management regulation which has been approved as part of the Multispecies FMP, such as existing mesh regulations, catch limits, area closures to certain types of fishing gear, or at the most extreme, area closures to all fishing, may be implemented.

## **C. Proposed Alternative (Flexible Area Action System)**

The following describes the way the Flexible Area Action System (FAAS) would work:

- |                   |   |
|-------------------|---|
| <b>Initiation</b> | The Chairman of the Multispecies Committee, upon learning of the presence of discard problems associated with large concentrations of juvenile and sublegal fish, would determine if the situation warranted further investigation and possible action. If so, he will request the Regional Director to initiate a fact finding investigation to verify the situation.  |
| <b>DAY 1</b>      | Day 1 will be designated when the Council provides a notice for publication in the Federal Register that informs the public of: <ol style="list-style-type: none"><li>1. the discard problem and the need for action;</li><li>2. the date of a joint Multispecies Committee Meeting and public hearing (at least 21 days from day 1);</li><li>3. the nature of possible action including:<ol style="list-style-type: none"><li>a) potential extent of the area which will be affected by any possible action (defined by common name, latitude/longitude coordinates and/or LORAN coordinates);</li><li>b) the species which will be affected;</li><li>c) the types of fishing gear which will be affected;</li><li>d) other fisheries which might be affected;</li></ol></li></ol> |

- e) the ports which will be primarily affected;
4. the date that the Regional Director's report and the Council's economic impact analysis will be available for public inspection.

The Council Staff would also notify the public of possible Council action by:

1. requesting the Regional Office to send a notice to permit holders;
2. notifying fishermen and the general public through other appropriate media.

**DAY 1 -  
DAY 14**

The Regional Director would examine the information from the following sources (in order of priority):

1. sea sampling from NOAA Domestic Sea Sampling Program or from State sea sampling activities;
2. port sampling from the NOAA Fisheries Statistics Investigation; or
3. any other source of information.

After examining the facts, the Regional Director would provide a technical analysis to determine the magnitude of discard of juvenile and sublegal fish and the presence and amount of spawning outside of any area/season fishing restriction. If possible he would provide technical analyses describing the nature of the impacts on the stock managed under the Multispecies FMP. The report will specify what type of activities would be required to monitor the area/fishery in question if action is taken.

The Council will prepare an economic impact analysis of the possible management actions under consideration.

**DAY 15**

The reports prepared by the Council and the Regional Director will be made available for inspection at the Council and Regional offices.

**DAY 21-**

The Multispecies (Groundfish) Committee will hold a meeting in conjunction with a public hearing to review the Regional Director's fact finding report and the Council's impact analysis. The Committee will solicit and consider public comment on the reports, the alternatives for action and the potential impacts of the alternatives. Upon review of all available sources of information the Committee will determine what course of action (if any) is warranted by the facts and make its recommendation to the Regional Director.

The Committee could request management measures of the kind already approved in the Multispecies FMP such as the implementation of the regulated mesh size (5-1/2"), limits on the bycatch of regulated species and limited closed areas to all or certain gear types. The duration of the action, which would be determined by the Committee, would

not be less than 3 weeks and not more than six months. The Committee would be able to recommend the action in whatever geographic area(s) it thought appropriate. However, it would be clearly understood that this type of action is appropriate for relatively limited areas and will not be applied to major sectors of the fishery for extended periods. Major sectors of the fishery are the Gulf of Maine, Georges Bank and the Southern New England area. The Regional Director would terminate the action if the monitoring program indicated the action was no longer warranted by conditions in the fishery.

**DAY 23-  
DAY 26** By day 23 the Regional Director will determine whether or not the Committee's recommended action was consistent with the fact finding. If he determines that the Committee's recommendation is consistent with the fact finding, he will implement the action through notice in the Federal Register by day 26. The action would become effective immediately upon its filing with the Federal Register.

The Regional Director would also take other steps to inform fishermen of the action. By day 26 notice will be sent to all vessel owners holding Federal Fisheries Permit for Northeast Multispecies finfish.

**After  
DAY 26** The Regional Director will monitor the area to determine if the action is warranted on an ongoing basis. If he determines that the circumstances under which the action was taken no longer exist, he will terminate the action.

**Rationale** This proposal was carefully designed with the cooperation of the Northeast Regional Office, the Northeast Fisheries Center, the NMFS Washington office, the Council and its Staff with input from the NMFS Plan Review Office. The primary reason for having an open ended framework management measure is the unpredictable and short-lived nature of the problems associated with large concentrations of juvenile, sublegal and spawning fish. If these concentrations, as well as the availability of other commercially valuable fish, could be adequately predicted in terms of their magnitude, location and duration, then such an open ended framework measure would not be needed.

The initiation process allows the Chairman of the Multispecies Committee to receive information from any source in order to initiate action. This aspect of the proposal is important because the last two emergency actions were initiated when the Chairman received information from concerned fishermen. This information could alternatively have been provided by NMFS port samplers, from survey data from NMFS scientists, sea samplers or anyone else. However, the fishing industry potentially has the greatest amount of information concerning these occurrences because of the widespread distribution of the commercial fishing fleet. The Chairman of the Multispecies Committee will, after determining whether it was warranted, request the Regional Director to investigate the situation.

When the Chairman has sufficient information to do so, he will provide a notice for publication to the Federal Register to begin the process. This could at the same time or after he requests the Regional Director to investigate the situation. The notice would set the date of the public hearing and Committee meeting at least 21 days after the notice was provided to the Federal Register to



ensure that the public will have sufficient input before any action is taken. The notice would also provide information on the extent of the area, the fish species, types of gear, other fisheries likely to be affected, the expected duration of the action and the date the Regional Director's report and the economic impact analysis would be available for public inspection.

The requirement that the Regional Director investigate the situation guarantees that a body outside of the Council verifies the nature and existence of any problem. The Regional Director would, if possible, provide a technical analysis describing the nature of the impacts on the stock(s) in question. Requiring the Regional Director to specify the monitoring activities before the Committee determines a course of action, if any, enables him to evaluate these activities with respect to available resources and minimizes any misunderstandings that might arise between the Council and the Regional Director over the monitoring program.

The requirement that the Council provide an analysis of the economic impacts of possible alternatives ensures that the public receives adequate and the most current available information about those alternatives. Both the Regional Director's report and the Council's economic impact analyses will be available for public inspection about one week before the public hearing.

The public hearing will provide the Council and the Regional Office with an important opportunity for formal public input. By having it on day 21 or later, the public will have received sufficient notice and information about possible alternative actions.

After reviewing the report, other pertinent information and public comments received from at least one public hearing and during the comment period, the Committee would determine what action, if any, was warranted by the facts. The reason for having the Committee rather than the Council determine the possible action is because of the relatively long time interval between Council meetings and the difficulty and expense of scheduling special Council meetings to consider such problems. The Committee is currently comprised of six members selected for their knowledge about various aspects of the Multispecies fishery.

The Committee could recommend measures which have already approved in the Multispecies FMP such as the implementation of the regulated mesh size (5-1/2"), limits on the bycatch of regulated species to limited closed areas to all or certain gear types in limited areas. The duration of the action, which would be determined by the Committee, would not be less than 3 weeks and not more than six months. The proposal does not include fixed criteria which might trigger specific action, because of the need for flexibility. For example, it has been suggested that mesh regulations might be triggered by a certain percentage mix of small or spawning fish measured by catch per standardized unit of fishing effort and an area closure might be triggered by either a higher percentage mix of small or spawning fish or large percentage of fish which are just below the minimum size but which, nevertheless, are likely to be caught in large mesh nets. The Council has rejected such predetermined criteria with fixed action because of the need for flexibility to manage these problems. There are many factors which might affect the net benefits of action and make predetermined action unwise. These include the presence of other species or fisheries, the existence or lack of alternative fishing grounds for the affected fishermen and the amount of enforcement available.

In some situations fishermen might request that the Committee adopt a measure that is more restrictive than would be indicated by fixed criteria. When the Council was considering what action to follow in emergency closure of the Southern New England yellowtail flounder area, it was the fishermen who suggested that a closure would be more appropriate than mesh regulations. Given the size of the small flounder and the selectivity characteristics of the 5-1/2" regulated mesh size, the action which seemed to impose the least amount of costs relative to benefits was to require minimum 5-1/2" codend mesh size in this area. However, fishing industry representatives suggested that the area be closed because: 1) fishermen did not traditionally fish in this area with large mesh nets; 2) the availability of other commercially valuable species was not high; 3) they felt a closure might be enforced more effectively and equitably.

When predetermined criteria based on the ratio of small or spawning fish to legal size fish might trigger an area closure, a large amount of other species being landed from the same area might make mesh size regulation more appropriate. Finally, because the present state of knowledge does not allow fishery managers to determine the location, or duration of concentrations of sublegal fish, these dimensions to any management action must be left open.

The 3-day period for the Regional Director to review the Committee's course of action again allows review of the Committee action at the regional level after a 21 day comment period and at least one public hearing. Also the Regional Director will have been knowledgeable about the issues surrounding any proposed action from having conducted the initial investigation. He will have a minimum of 23 days to consider any information.

In discussing the mechanics of the Flexible Area Action System it is easy to lose sight of its context. The Council and Committee do not expect to take action under this system without support from the fishing industry. Without the industry's input and cooperation, it is unlikely that the Council will get the information it needs. Furthermore, the Council realizes that if it takes action under this system, NMFS will subject the action to closer scrutiny because of the lack of pre-defined criteria for action. The Council assumes that any major controversy over an action under this system will prevent the action from being implemented. However, it is the experience of the Council that the great majority of fishermen support measures to protect sublegal and spawning fish.

**Biological Considerations** The main biological consideration, the need to improve age-at-entry controls in the Multispecies fishery, has been discussed in Section II (Purpose and Need for Action). Other biological considerations which are addressed by the proposed measure are the unpredictable and short lived nature of concentrations of small and spawning fish and the importance of husbanding incoming year classes for stocks at low levels of abundance.

In 1987, the Technical Monitoring Group attempted to evaluate whether a summer/fall closure to be implemented via a 90 day emergency action was warranted to protect the 1985 year class of haddock. The TMG was not successful "due to a lack of data and an inability to quantify impacts of different Georges Bank area/month juvenile closures on fishing mortality" and because this year class was small in comparison to the exceptionally large 1975 and 1978 haddock year classes.

The only currently available means for estimating the levels of recruitment or spawning activity are NMFS research vessel surveys. Surveys of groundfish stocks are usually conducted twice a year, in the spring and fall. Consequently, the surveys might not provide adequate advice regarding short-term concentrations of young fish at other times of the year. Also, pre-recruit survey indices, particularly in the case of yellowtail, are extremely variable and are often more determined by the availability of small fish to the survey gear as by abundance. Because of these uncertainties, regulatory action needs to be based on additional information.

For example, in November 1988, as a result of the Autumn bottom trawl survey completed in the previous month, the Northeast Fisheries Center first informally indicated to the Council Staff via the Stock Assessment Workshop that a good year class of yellowtail flounder would possibly recruit to the Southern New England fishery in the next year. The Council had no information at an earlier time about this situation nor was it given any further details. The survey data gave some indication of the locations of concentrations of juveniles during September through October 1988, but there was no way to predict their location in subsequent time periods. The only feasible way to determine the current location of juvenile concentrations was through the cooperation of the commercial fishing fleet. Two months later fishing industry representatives informed the Council that large numbers of small yellowtail were being caught and discarded in certain areas in Southern New England. This occurrence clearly could not be adequately anticipated and led to the most recent emergency action which has been described in other sections of this document.

The short lived nature of concentrations is also an important consideration. If these situations are managed through inflexible regulations, there will be a proliferation of regulations and constraints placed on fishermen which serve no purpose after a relatively short period of time. At present, the Multispecies regulations still contain provision for haddock spawning areas which provide only some of the benefits for which they were originally designed but which the Council is reluctant to change because of the great difficulty required to do so.

For stocks of haddock which are often largely comprised of a single year class, husbanding incoming year classes is important not only to increase yield per recruit but also spawning stock biomass. It is also difficult to dispute the value of protecting incoming year classes of yellowtail flounder which display cyclical abundance levels or cod stocks which are at severely depressed levels.

#### **D. Economic and Regulatory Impact Analysis of Proposed Measures**

##### **Economic and Regulatory Impact Analysis**

##### **Management Options for Analysis:**

The main purpose of the proposed measure is to improve age-at-entry controls. The proposed measure is evaluated only in respect to the no-action alternative because under the proposed measure the Council could employ a variety of different management measures. These specific alternatives and their impacts will be evaluated each time the Council takes action under this proposed measure. It is difficult to quantify costs in relation to benefits prior to such actions not because the actions cannot be anticipated, but because the availability of different sizes and species of fish cannot be adequately predicted for any area. In addition to evaluating the costs and benefits of any proposed

action at the time it is contemplated, the Committee will also conduct a hearing to formally receive public comment.

### Benefits

There are a number of ways to evaluate the benefits of the proposed measure without data to quantify them. The inability to quantify the anticipated benefits or costs from the proposed measure does not decrease likelihood that the action will have important net positive benefits. This aspect of the proposed measure cannot be too strongly emphasized.

- 1) The proposed measure furthers the objectives of the Multispecies FMP. The FMP document and the report of the Technical Monitoring Group (TMG) detail the theoretical basis and the benefits of the current management strategy. This strategy is largely based on achieving effective age-at-entry controls and to modify these controls on an ongoing basis in order to ensure their effectiveness. The need to improve these controls has been described in Section II, The Purpose and Need for Action and was anticipated in §7B1.5 (Additional Measures) of the original FMP document. The benefits derived from an improvement in these controls are those which have been calculated in this original FMP document.
- 2) Any measure which reduces mortality primarily on sublegal fish rather than attempting to reduce mortality on older age groups is an efficient approach to increasing yield per recruit. The increase in yield per recruit from any successful action will accrue very rapidly. Today's fishermen will reap most of these benefits within a relatively short time instead of having them captured by new entrants to the fishery at a later date. For example, under prevailing discard, growth and natural mortality rates, the yellowtail discarded in Southern New England in January through March 1989, could have yielded, within a year's time, 4 to 6 times the volume of legal size yellowtail landed during this period.
- 3) The flexibility of the proposed measure allows the Council to recommend that the Regional Director terminate an action when it is no longer warranted and prevents the Council from imposing unnecessary costs on the fishing industry. In this respect, the proposed measure is perhaps unique to fisheries management in the U.S. This management flexibility can increase confidence in the management system by demonstrating that management restrictions can be rescinded rather than only imposed on fishermen. In addition, the flexibility of the proposed system will enable the Council to modify and improve some of the existing area closures on a more timely basis as conditions in the fishery change. The optimum areas to protect yellowtail and haddock spawning seem to change over time, yet unless these changes are extremely large, the Council is reluctant to modify them under the existing, time-consuming process which often takes about two years.

### Costs

This measure will create costs in two ways. First, there will be an increase in the enforcement and administrative burden which must be met either by increasing expenditures for these functions or by forgoing other existing enforcement, administrative or other activities which are deemed to be less important. Although this measure adds to the enforcement and administrative burden of NMFS

and the Coast Guard, it is not expected that these agencies will expend more resources on fisheries management and enforcement because of it. Instead, these agencies are expected to re-order priorities for their resources/activities which have already been budgeted for the enforcement of Multispecies FMP regulations.

The need to verify concentrations of small or spawning fish and to monitor areas in which the Committee has taken action under this amendment will increase costs for the administration of the Multispecies FMP. The Northeast Fisheries Center has informed the Council Staff that the existing sea sampling program budget is designed to provide 50 observer days within the overall sample design for monitoring management programs. Monitoring in excess of fifty days would impose costs either in terms of additional resources needed by the program or in terms of opportunity costs by reducing the effectiveness of the original sampling design by redistributing observers to meet monitoring requirements.

The average cost (total program cost) of placing a sea sampler aboard a vessel for a day at sea is about \$750 per day excluding the cost of vessel. The marginal cost, if the sea sampling program were to be increased by a relatively small amount is about \$250 per day. The Northeast Fisheries has informed the Council that in estimating the costs of monitoring activity for this proposal, it is appropriate to use the lower marginal cost figure.

Prior to the emergency actions on Nantucket Shoals and in the Southern New England yellowtail area, commercial fishermen voluntarily carried observers in order to verify high levels of discards. It is the Council's experience that when these problems arise, concerned fishermen are willing to carry observers, even when there is little reward in terms of the amount of fish they are able to land. The Council also expects that it will be less difficult to find vessels willing to carry observers to monitor an area for the purpose of terminating an action, if there is a large amount of legal size fish in the area and the vessels are allowed to sell their catch. If harvestable fish are not sufficiently abundant in the area, as was the case at the end of the emergency action on Nantucket Shoals, then fishermen are not interested in carrying observers. In this case, however, the economic loss from not being able to monitor the area is very small or nonexistent because there is no desire to fish in the area.

It is estimated that a single vessel with one observer aboard can adequately sample about a 900 square mile area per day, in order to determine the presence or absence of significant amounts of small or spawning fish in the area. It might be reasonable to sample such an area on a biweekly basis to determine whether or not an action was still warranted by the presence of small or spawning fish. One to two observer days at sea per 900 square mile area might be required to initially determine the accuracy of reports from fishermen or other sources indicating large amounts of small or spawning fish.

The Coast Guard has informed the Council that if, for example, the Committee implemented mesh size restrictions, then the Coast Guard would direct more of its boarding activities to the appropriate area. If the Committee implemented an area closure, the Coast Guard would reduce the number of vessel boardings made to enforce multispecies regulations in order to enforce the area closure. It is unrealistic to expect that this measure will have any effect on the amount of total resources allocated to these agencies.

The economic cost of reallocating enforcement resources is a loss of benefits from enforcement in lower priority areas. If enforcement resources have been efficiently deployed, this cost will be at least as great as the direct management and enforcement costs involved. In taking any action under this Amendment, the Multispecies Committee will consider how the action might force NMFS and the Coast Guard to re-deploy multispecies enforcement efforts. If the Committee judges that a particular action would reduce the enforcement of other Multispecies FMP regulations by too great an amount, it would consider other alternatives or take no action. The Committee will make the judgment whether a problem caused by concentrations of small or spawning fish warrants the diversion of resources from the enforcement of other Multispecies regulations. Both the theoretical and practical limit on actions considered by the Committee will be the amount of enforcement resources which can be diverted from other, less important multispecies enforcement activities.

The second type of cost is the amount of the revenue lost by the fishing industry because of the action. In the worst case, the immediate negative impacts from an action taken under the proposed measure would not be mitigated. An example of this would be an area closure which caused fishermen to remain at the dock rather than to fish in other areas which are not affected by the action. However, this worst case scenario is very unlikely for a number of reasons. 1) Even when large area closures have been imposed in the past, fishermen have had alternative fishing grounds. 2) Many of the small fish protected by any action taken under this system will grow rapidly and become available to the fishery when the action ends (Figures A.1 - A.6 in Appendix A). The increase in yield per recruit is especially great when the fishery is dependent on single, incoming year classes and any immediate losses will probably be made up within one year. 3) The Council and the Multispecies Committee are sensitive to the issue that some fishermen can only fish in certain areas and that these grounds should not be closed if they leave fishermen without alternative areas.

Finally, forgone revenues are not the same as forgone profits. It is even possible that profits could be increased in a heavily exploited fishery if vessels were idled during periods of low catch rates and resumed fishing only when catch rates were higher. Therefore, estimates of forgone revenues greatly overstate the short term negative impacts of any action.

### **Likely Extent of Possible Action**

To understand the likely extent of the area and duration of possible action, it is helpful to look at some measures either implemented or considered in past emergency actions or what might be an extreme action for the sake of illustrating a worst case scenario in terms of short-term impacts on fishermen.

**Nantucket Shoals** The January 1988 emergency action to protect small cod on Nantucket Shoals covered about 700 square nautical miles and was designed to last up to four months. In this action the Council chose temporary mesh regulations instead of an area closure primarily because of industry recommendations and because an area closure would have a much stronger short-term negative impact on the industry. Estimated forgone revenues of a closed area were \$1.76 million compared to \$0.13 million for the mesh restrictions. Data on the discards of small codfish were inadequate to estimate benefits from this action.

**Southern New England Yellowtail Flounder Area** The emergency action to protect small yellowtail flounder in the Southern New England area covered about 2,535 square nautical miles, and if implemented at the earliest the Council thought appropriate, might have lasted three months. In fact, it lasted only one week in the eastern part of the area and 5 weeks in the western part. The Council closed the area after examining sea sampling data and at the recommendation of industry representatives. Both industry representatives and the sea sampling indicated that the area did not contain a substantial amount of other fish of value. In addition, many of the fishermen who traditionally fish this area do not own large mesh gear and felt that the area should be closed.

Total revenues for groundfish vessels fishing in this area in January and February 1989 were \$1.15 million. Sixty-three percent of these revenues were from landings of regulated species: cod (36%), winter flounder (5%), summer flounder (5%) and yellowtail (17%). Yellowtail landings of 331,000 pounds accounted for 29% of the total revenues. Given the rate of discards of small yellowtail, and assuming a natural mortality rate of 0.2, discarding caused a loss of about 1.02 to 1.8 million pounds of yellowtail in terms of potential harvest six months to one year later.

**Figure 1**

**Management Areas of the Multispecies FMP**

If these small yellowtail were allowed to recruit to the commercial fishery they would have yielded \$1.05 to \$1.85 million in ex-vessel revenues. In addition, they might have contributed to the spawning potential of the Southern New England yellowtail stock. Stocks of the other commercially important species, such as cod and other flounders, also could have benefited from reductions in fishing pressure caused by an area closure.

The cost to the fishing industry of such an action would have been minimal. Given the high fishing mortality rates for these stocks, the likelihood that these fish would be caught at a later time and the availability of alternative fishings grounds, actual net revenue losses to the fishery would probably have been close to zero. The vessels affected by the action were from the ports of Riverhead, NY, Pt. Judith, Newport and New Bedford. Despite the size of the area, it is situated in such a way that all the vessels from all these ports would have had access to alternative fishing

grounds (Figure 1), although the other areas might not be preferred.

Mesh regulations in this area would have greatly lessened potential negative impacts assuming that all landings of regulated species would have been caught with 5-1/2 inch mesh nets. Temporary potential revenue losses in January and February 1989 might have been reduced about 92% from about \$1.69 million to \$130,000 (Table 1). However, the fishing industry was willing to bear the costs of an area closure in order to more effectively protect the small yellowtail flounder.

Estimated monitoring costs for this area would have been \$3,000. This estimate is based on 12 sea sampling days at \$250 per day to cover about 2,700 square miles for a period of 60 days. Air surveillance to enforce an area closure of this size for 60 days is estimated to require 90 hours of flying time (one-half of the area can be covered in one 3 hour mission using a HH-65A helicopter) costing \$2,047 per hour or 184,200. At-sea enforcement is estimated to require 240 hours of vessel time. The use of a 82 to 110' patrol craft, capable of staying in the area in almost all weather conditions, would cost \$77,040 for this period of time. Slightly less expensive utility boats could be used in good weather.

Mesh regulations for this area and time period are estimated to require 480 hours of vessel time costing \$154,000 and 15 hours of air surveillance (in order to assist at-sea enforcement efforts) costing \$30,705.

**Stellwagen Bank** Inshore Gloucester fishermen have expressed the most concern about potential negative impacts from the proposed measure. At public hearings these fishermen indicated that they were afraid that the Council would use this system to close the only fishing grounds that were readily accessible to them. Many of these fishermen catch a variety of small mesh species such as whiting, shrimp, herring and mackerel for most of the year. The problems created by small fisheries are greatest in the Gulf of Maine because there is a greater abundance of regulated species in small mesh fishing areas here than there is in Southern New England. There is currently almost no small mesh fishing on Georges Bank.

Although it is impossible to dispel such concerns until the system is implemented, the Council is unlikely to use the Flexible Area Action System to impose extended closures (more than three months) covering large areas (more than 300 square miles) in the Gulf of Maine because aggregations of small fish are unlikely to remain in the same place for long periods of time. Important fishing grounds in the Gulf such as Jeffreys Ledge, Stellwagen Bank and Ipswich Bay are small compared to the Southern New England yellowtail flounder area, the seasonal large mesh area on Nantucket Shoals or the haddock spawning areas on Georges Bank.

Table 1

**Gross Impacts of Possible Actions  
Under the Flexible Area Action System**



	Area Closure	Mesh Regulations
<b>Southern New England Yellowtail Flounder Area</b> (January - February, 1989)		
Forgone Exvessel Revenues		
Trawlers	\$ 1,149,000	\$ 130,000
Scallopers	549,000	0
Number of Vessels Affected		
Trawlers	74	74
Scallopers	10	0
Average Forgone Revenue		
Trawlers	\$ 15,527	\$ 1,757
Scallopers	54,900	0
<b>Stellwagen Bank</b> (October - December, 1988)		
Forgone Exvessel Revenues	\$ 2,774,000	\$ 535,000
Number of Vessels Affected	155	62
Average Forgone Revenue per Vessel	17,896	\$ 8,645

A worst case scenario in terms of negative short term impacts might involve Stellwagen Bank, the most valuable fishing grounds in the Gulf of Maine. Small codfish are reported to gather in this area fairly frequently. Under a worst case scenario, if Stellwagen Bank were closed for the three-month period, October through December, when the value of the catch is the highest, forgone revenues based on 1988 landings would total \$2.77 million. However, if 5-1/2 inch mesh size restrictions had been applied to Stellwagen Bank area, the amount of forgone revenues, based on the value of landings of small mesh species by small mesh gear would only be \$535,000. Under mesh restrictions these vessels would have landed regulated species worth \$510,000 and other species with a value of \$21,000. A closure would have affected 155 vessels and mesh restrictions would have

affected 62 (Table 1). Even with a three month closure, in view of the high fishing mortality rates for regulated species, the revenues from these species would most likely be realized at a later time during the year.

Monitoring costs might have been about \$1,750 based on \$250 per day of sea sampling for 7 days (one sampling trip every two weeks for 13 weeks). Because this area is already part of the Regulated Mesh Area and because the Exempted Fisheries Program (EFP) is perceived to increase the enforcement burden, a reduction in small mesh fishing under the EFP in this area should not require substantial additional enforcement resources. Mesh regulations for this area and time period are estimated to require 8 hours of air surveillance using an HH-3 helicopter costing \$16,376 in order to assist at-sea enforcement efforts, and to require 120 hours of additional vessel time using patrol craft which would cost \$38,520. Less expensive utility boats could be used in good weather.

Enforcement costs of an area closure might require about 30 hours of air surveillance costing \$61,410 and 80 additional hours of vessel time which would cost about \$25,680.

### **Cost - Benefit Conclusion**

For purposes of estimating potential net impacts, it is necessary to make some arbitrary, but conservative, assumptions about costs and benefits. The decrease in net profits will be assumed to be 20% of forgone revenues for the Southern New England area and 33% of forgone revenues for Stellwagen Bank. This difference reflects the greater number of alternative areas and fisheries such as the fluke, butterfish and whiting available to Southern New England fishermen fisheries at this time of year.

In estimating potential benefits, 100% of the discards which would have occurred in the area in question are assumed to survive to recruit to the commercial fishery under the area closure alternative. A smaller percentage of small fish are expected to survive under the mesh regulation alternative. Mesh regulations are more difficult to enforce and nets of the regulated mesh size can retain varying amounts of sublegal fish depending on the size and amount of small fish in a given area. Under the mesh regulation alternative, 50% percent of the potential discards are assumed to survive in the Southern New England area and 67% in the Stellwagen Bank area. This difference reflects the following considerations: 1) Mesh regulations would be more difficult to enforce in the Southern New England area because it is larger; 2) Southern New England fishermen traditionally have fished with small mesh. Fishermen without large mesh gear might be less likely to comply with mesh regulations; 3) In the Gulf of Maine, the Exempted Fisheries Program's regulated species bycatch limits already discourage the use of small mesh to catch regulated species; and 4) The greater abundance of regulated (large mesh) species on Stellwagen Bank provides fishermen with more incentive to use large mesh gear.

**Table 2**

**Enforcement Costs for Possible Actions  
Under the Flexible Area Action System**

	<b>Area Closure</b>	<b>Mesh Regulations</b>
<b>Southern New England Yellowtail Area (60 days)</b>		
Air surveillance HH-65A helicopters	\$ 184,230 (90 hrs)	\$ 30,705 (15 hrs)
At-sea enforcement 82-110' patrol craft	<u>77,040</u> (240 hrs)	<u>154,080</u> (480 hrs)
<b>Total</b>	\$ 216,270	\$ 184,785
<b>Stellwagen Bank (90 days)</b>		
Air surveillance HH-3 helicopters	\$ 61,410 (30 hrs)	\$ 16,376 (8 hrs)
At-sea enforcement 82-110' patrol craft	<u>25,680</u> (80 hrs)	<u>38,520</u> (120 hrs)
<b>Total</b>	\$ 87,090	\$ 54,896

Potential benefits of the action contemplated in Southern New England in January and February 1989 were estimated to be \$1.05 to \$1.85 million. A mid-range figure of \$1.45 discounted at 10% for one year, or \$1.318 million, is used in the analysis to simplify the estimation of net benefits. In order to generate potential benefits for the worst case scenario for action in the Stellwagen Bank area, it will be assumed that a large concentration of small cod appear in the area and cause fishermen to discard 14" cod which are equal in number to the codfish they land. These fish would reach the legal minimum size of 19" in about one year (Figures A.4 - A.6 in Appendix A). If all the small cod, except for about 18% dying from natural mortality ( $M=0.2$ ), survive to reach the minimum legal size, their potential yield will be about 2.755 million pounds worth about \$1.786 million (using constant, 1988 prices and a 10% discount rate).

Using these assumptions, net benefits have been calculated in Table 3. Net benefits are estimated to be \$759,000 for the example of the area closure and \$364,000 for the case of mesh regulations in the Southern New England yellowtail flounder area. Net benefits are estimated to be \$782,000 for

the the area closure and \$963,000 for mesh regulations in the Stellwagen Bank area.

### Implementation Considerations

The proposed measure has been discussed with the Director of the Northeast Fisheries Center and the Director for the Northeast Region of the National Marine Fisheries Service. Both officials have indicated that their organizations are capable of supporting the proposed measure. The Committee will take into account other implementation considerations at the time of any action. It is aware that regulations cannot be effectively enforced in too small an area because vessels could tow through a very small area quickly enough to make detection difficult. The Committee is also aware that this concern must be balanced against the concern for taking action in too large an area and therefore imposing unnecessary costs on the fishing industry. Finally, the Committee is aware that enforcement and administrative activities must be carried out with existing resources already allocated for the Multispecies fishery.

**Table 3**

#### **Estimated Net Benefits of Possible Actions Under the Flexible Area Action System**

Million Dollars								
			Area Closure			Mesh Regulations		
Southern New England Yellowtail Area (60 days)								
Potential benefits			\$	1.318	(100%)	\$	0.659	(50%)
Monitoring costs			-	0.003		-	0.003	
Opportunity costs (20% of forgone revenues)			-	0.340		-	0.107	
Enforcement costs			-	<u>0.216</u>		-	<u>0.185</u>	
Total			\$	0.759		\$	0.364	

**Stellwagen Bank (90 days)**

Potential benefits	\$ 1.786 (100%)	\$ 1.197 (67%)
Monitoring costs	- 0.002	- 0.002
Opportunity costs (33% of forgone revenues)	- 0.915	- 0.177
Enforcement costs	<u>- 0.087</u>	<u>- 0.055</u>
<b>Total</b>	<b>\$ 0.782</b>	<b>\$ 0.963</b>

**Initial Regulatory Flexibility Analysis:** The New England multispecies fishing industry directly affected by this management program is composed of small entities operating primarily in New England waters including waters south of Long Island. The number of operating units is given below.

	Otter Trawlers	Gillnetters	Hook Gear
1988	791	154	55

All of the vessels and processors in the New England multispecies fishery are considered to be small businesses. Any single action taken under the proposed measure (based on the potential impact of the Southern New England Yellowtail flounder Emergency Action) is not expected to affect more than about 200 vessels nor have a potential impact of more than \$3 million in short-term forgone revenues. Potential short-term forgone revenues are not expected to exceed \$10,000 per vessel per month for trawlers or about \$30,000 per vessel per month for scallopers. Given the high growth rates of small fish, the high value of regulated species, the availability of alternative fishing grounds and the high level of fishing mortality for regulated species, the short-term negative impacts on the net profits of any individual entity in the fishery are expected to be minimal or close to zero (refer to the discussion of economic considerations on the preceding pages). For the same reasons, this proposal is expected to have positive net medium-term and long-term impacts on the fishery as a whole. The cost-benefit analysis of possible actions implemented under this amendment estimates that these actions can have substantial positive net benefits for the Multispecies fishery. Under the proposed measure, the Council will provide the public with an economic impact analysis of the specific actions under consideration at the time any action is contemplated.

## E. Consistency with the National Standards

**National Standards** Amendment #3 to the Northeast Multispecies FMP represents a continuation of the Council's commitment to respond to changing conditions within the resource and the fishery in relation to the achievement of management objectives and the maintenance of consistency with the National Standards.

**#1 Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery.**

Two major issues are addressed by the measure proposed in this Amendment. The proposed measure will increase conservation and improve management measures by improving age-at-entry controls in the Multispecies fishery, and thereby reducing fishing mortality on juvenile and sublegal fish. In addition, it will help increase spawning potential by enabling the Council to better protect spawning fish. In developing this proposal, the Council sought input from fishermen, processors, scientists, enforcement officials and administrators, and received substantial constructive comment at a series of public hearings. The Council expects that implementation of Amendment 3 will substantially enhance the achievement of the conservation and management objectives of the FMP.

The proposed measure is not intended to impose substantially greater restrictions than those explained in the initial FMP. The proposed Flexible Area Action System is intended to alleviate implementation problems that prevent the FMP's measures from performing at their full conservation potential. The Council recognizes that additional management actions might be necessary to ensure that the FMP's objectives are achieved over time. Together with a continuing commitment to FMP monitoring and future FMP modifications as may be required, the management proposals in Amendment 3 serve to promote the achievement of the Council's management objectives, and in so doing, maintain consistency with National Standard #1.

**#2 Conservation and Management measures shall be based upon the best scientific information available.**

In the development of Amendment 3 to the Northeast Multispecies FMP, the Council used the most complete and current scientific information available. In developing the proposed changes to the management program, the Council received input from the Technical Monitoring Group for the proposed measure and has acted in a manner which is consistent with that group's recommendations. By the nature of Amendment 3, any action taken under this amendment will be based on current data.

**#3 To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.**

The proposed measure does not add or detract from the Council's efforts to manage all of the stocks within the multispecies fishery.

**#4 Conservation and Management measures shall not discriminate between residents of different states.**

Management measures proposed in this Amendment are applicable to all participants in the Northeast Multispecies fishery. All management proposals are designed to promote conservation and the achievement of the management objectives without discriminatory intent.

**#5 Conservation and management measures shall, where practicable, promote efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation**

**as its sole purpose.**

The measures proposed in this Amendment are designed to increase the efficiency of age-at-entry controls by preventing the wasteful discarding of fish which do not meet the minimum size requirements and by improving the ability to protect fish when they are spawning or about to spawn.

**#6 Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.**

The proposed measure is specifically designed to give the Council the flexibility it needs to deal in variations in the behavior and abundance of juvenile, sublegal and spawning fish.

**#7 Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.**

The proposed measure is a cost-effective strategy because it enhances age-at-entry controls and increases yield-per-recruit by eliminating the wasteful discard of small fish.

**Other Laws and Management Programs** The proposed measure does not change in any way the relationship between the federal management program for the multispecies fishery resource and the other state and federal laws and statutes that affect all or a part of the multispecies resource complex. Nothing in this amendment will change the relationship that has been discussed in Sections 7C2 and 2B5 of the Northeast Multispecies FMP in relation to marine mammals and endangered species. The Council has determined, in accordance with the requirements of §303(a)(6) of the Act, that none of the measures in this Amendment will pose a safety problem for fishermen. Finally, The Council has determined that this amendment will be implemented in a manner consistent to the maximum extent practicable with the approved Coastal Zone Management Programs of the affected states. Letters have been sent to the appropriate state coastal zone management agencies to confirm this determination.

## **F. Finding of No Significant Environmental Impact**

In view of the analysis presented in this document, it is hereby determined that the proposed action in this amendment to the Northeast Multispecies Fishery Management Plan would not significantly affect the quality of the human environment with specific reference to the criteria contained in NDM 02-10 implementing the National Environmental Policy Act. Accordingly, the preparation of a supplemental Environmental

Impact Statement for this proposed action is not necessary.

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Assistant Administrator  
for Fisheries, NOAA

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Date

#### **IV. AMENDATORY LANGUAGE**

The Council proposes to amend the language contained in Section 7B1 of the Northeast Multispecies FMP as follows:

##### **§7B1 Proposed Management Program (Preferred Alternative)**

##### **Operative Measures**

##### **5. Flexible Area Action System**

**Initiation** The Chairman of the Multispecies Committee, upon learning of the presence of discard problems associated with large concentrations of juvenile and sublegal fish, would determine if the situation warranted further investigation and possible action. If so, he will request the Regional Director to initiate a fact finding investigation to verify the situation.

**DAY 1** Day 1 will be designated when the Council provides a notice for publication in the Federal Register that informs the public of:

1. the discard problem and the need for action;
2. the date of a joint Multispecies Committee Meeting and public hearing (at least 21 days from day 1);
3. the nature of possible action including:
  - a) potential extent of the area which will be affected by any possible action (defined by common name, latitude/longitude coordinates and/or LORAN coordinates);
  - b) the species which will be affected;
  - c) the types of fishing gear which will be affected;
  - d) other fisheries which might be affected;
  - e) the ports which will be primarily affected;



4. the date that the Regional Director's report and the Council's economic impact analysis will be available for public inspection.

The Council Staff would also notify the public of possible Council action by:

1. requesting the Regional Office to send a notice to permit holders;
2. notifying fishermen and the general public through other appropriate media.

**DAY 1 -  
DAY 14** The Regional Director would examine the information from the following sources (in order of priority):

1. sea sampling from NOAA Domestic Sea Sampling Program or from State sea sampling activities;
2. port sampling from the NOAA Fisheries Statistics Investigation; or
3. any other source of information.

After examining the facts, the Regional Director would provide a technical analysis to determine the magnitude of discard of juvenile and sublegal fish and the presence and amount of spawning outside of any area/season fishing restriction. If possible he would provide technical analyses describing the nature of the impacts on the stock managed under the Multispecies FMP. The report will specify what type of activities would be required to monitor the area/fishery in question if action is taken.

The Council will prepare an economic impact analysis of the possible management actions under consideration.

**DAY 15** The reports prepared by the Council and the Regional Director will be made available for inspection at the Council and Regional offices.

**DAY 21-** The Multispecies (Groundfish) Committee will hold a meeting in conjunction with a public hearing to review the Regional Director's fact finding report and the Council's impact analysis. The Committee will solicit and consider public comment on the reports, the alternatives for action and the potential impacts of the alternatives. Upon review of all available sources of information the Committee will determine what course of action (if any) is warranted by the facts and make its recommendation to the Regional Director.

The Committee could request management measures of the kind already approved in the Multispecies FMP such as the implementation of the regulated mesh size (5-1/2"), limits on the bycatch of regulated species and limited closed areas to all or certain gear types. The duration of the action, which would be determined by the Committee, would not be less than 3 weeks and not more than six months. The Committee would be able to recommend the action in whatever geographic area(s) it thought appropriate.

However, it would be clearly understood that this type of action is appropriate for relatively limited areas and will not be applied to major sectors of the fishery for extended periods. Major sectors of the fishery are the Gulf of Maine, Georges Bank and the Southern New England area. The Regional Director would terminate the action if the monitoring program indicated the action was no longer warranted by conditions in the fishery.

**DAY 23-  
DAY 26** By day 23 the Regional Director will determine whether or not the Committee's recommended action was consistent with the fact finding. If he determines that the Committee's recommendation is consistent with the fact finding, he will implement the action through notice in the Federal Register by day 26. The action would become effective immediately upon its filing with the Federal Register.

The Regional Director would also take other steps to inform fishermen of the action. By day 26 notice will be sent to all vessel owners holding Federal Fisheries Permit for Northeast Multispecies finfish.

**After  
DAY 26** The Regional Director will monitor the area to determine if the action is warranted on an ongoing basis. If he determines that the circumstances under which the action was taken no longer exist, he will terminate the action.

## **V. LIST OF AGENCIES AND PERSON CONSULTED IN DEVELOPING THE PROPOSED ACTION**

### **A. Federal Agencies**

U.S. Environmental Protection Agency (Regions I, II, III)  
Department of State  
U.S. Coast Guard  
Department of Interior  
    Fish and Wildlife Service  
U.S. Army Corps of Engineers  
Marine Mammal Commission  
Mid-Atlantic Fishery Management Council  
South Atlantic Fishery Management Council  
Atlantic States Marine Fisheries Commission

### **B. State Agencies**

Maine Department of Marine Resources  
Maine State Planning Office  
New Hampshire Dept. of Fish and Game  
Massachusetts Division of Marine Fisheries  
Massachusetts Office of Coastal Zone Management  
Rhode Island Dept. of Environmental Management  
Rhode Island Statewide Planning Program

Connecticut Dept. of Environmental Protection  
New York Division of Marine and Coastal Resources

**C. Individuals**

Marshall Alexander  
Joseph Brancalone  
Tommy Jordan  
Ken Macara  
Kevin McCarthy  
Howard Nickerson  
Lucy Sloan

Barbara Stevenson  
Robert Contrino  
Jeff Kaelin  
Joe Testaverde  
James McCauley  
Tom Morse  
Willis Spears

**VI. LIST OF PREPARERS FOR ENVIRONMENTAL ASSESSMENT AND PLAN AMENDMENT**

This Amendment to the Northeast Multispecies Fishery Management Plan (FMP) was prepared by a team of fishery managers and scientists with expertise in the multispecies resource.

**Groundfish Committee**

James Warren  
Barry Gibson  
Philip Coates  
Herbert Drake

Warren Hader  
Arthur Odlin  
Robert Smith  
Anthony Verga

**Assisting the Committee**

**Council Staff**

Douglas Marshall  
Louis Goodreau  
Pamela Mace

Howard Russell  
Christopher Kellogg

**National Marine Fisheries Service**

John Terrill  
Peter Colosi

Anton Geidt

**Technical Monitoring Group**

David Pierce, Mass. DMF, Chairman  
Frederick Serchuk, NMFS/NEFC  
Thomas Hoff, MAFMC Staff  
Christopher Kellogg, NEFMC Staff

Tim Smith, NMFS/NEFC  
Peter Colosi, NMFS/NERO  
John Mason, NY DEM

## VII. RESPONSE TO PUBLIC COMMENTS

Public hearings were held in Rockland and Portland, ME, Gloucester, and Buzzards Bay, MA, Galilee, RI and Riverhead, NY during the period April 10 through April 13, 1989. A summary of each public hearing is included in the Appendix A to this document. The major concerns expressed at the hearings and in the written comments, as well as the Council's response, are listed below:

1. **Comment:** The Flexible Area Action System threatens to severely hurt inshore fishermen because the Council will close inshore areas and the small size of their vessels will prevent these fishermen from fishing other, more distant grounds.

**Response:** 1) The Council is not limited to using closed areas under this system and will strongly consider other, less extreme alternatives such as mesh regulations to protect concentrations of small fish. 2) The Council will not use this system to impose highly controversial restrictions. 3) Any action taken under this system must have a positive net impact on the Multispecies fishery resource.

2. **Comment:** There is an abundance of small fish of the regulated species in the Gulf of Maine, however, these fish continually move and therefore make closures impractical.

**Response:** The Council recognizes that there are areas in which it might not be practical to use the Flexible Area Action System to protect small fish. On the other hand, there have been situations such as the Southern New England yellowtail flounder and Nantucket Shoals codfish emergency actions, and instances of high discards of haddock where this system would have been extremely valuable. Such situations are likely to occur again.

3. **Comment:** The Flexible Area Action System puts too much power in the hands of the Council/Multispecies Committee because it does not allow for appropriate public input.

**Response:** This system guarantees that there will be a formal public comment period including at least one public hearing. Previous emergency actions did not allow as high a level of public input as would the Flexible Area Action System.

4. **Comment:** The proposed system would apply to "relatively limited" areas. this phrase need to be more precisely defined because it should not apply to very large areas.

**Response:** The Council will not use this system to impose highly controversial restrictions. If the size of an area is too large then the proposed action will be very controversial and will not be implemented. The Council was able to initiate an emergency action that closed the Southern New England yellowtail flounder area which covered about 2,500 square miles because fishing industry representatives requested and supported the closure.

5. **Comment:** Some fishermen might provide inaccurate information to initiate an action in order to gain a competitive advantage over other fishermen.

**Response:** The Regional Director will conduct a fact finding investigation to verify any problems caused by large aggregations of small or spawning fish.

Appendix A

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Figure A.1

Figure A.2

Appendix A

Page A2

Figure A.3

Figure A.4

Figure A.5



Figure A.6

## APPENDIX B

### SUMMARY OF PUBLIC HEARINGS AND WRITTEN COMMENTS

