


Agenda Item H-2
April, 1980

MEMORANDUM

DATE: April 19, 1980

TO: Council Members, Scientific & Statistical Committee and
Advisory Panel

FROM: Jim H. Branson, Executive Director 

SUBJECT: Review of the Environmental Defense Fund (EDF) Petition

ACTION REQUIRED

Review and comment on the EDF Petition.

BACKGROUND

On February 8th NOAA/DOC published a Petition by the Environmental Defense Fund to change the guidelines for the development of fishery management plans. This action was noticed in the Federal Register on February 8, 1980 with comments required by May 10, 1980. Chief among the concerns expressed by the Petition is an alleged failure of the Guidelines (for the development of FMP's) to ensure that conservation objectives of the FCMA are implemented through FMP's.

On April 8, 1980 an SSC Subcommittee met in Seattle to review the Environmental Defense Fund Petition. This Subgroup has presented a report to the SSC and to the AP and has harshly criticized the Environmental Defense Fund for proposing sweeping changes without supporting data and analysis. The Subgroup goes on to explain that the Petition ignores the fact that the Act was designed to both conserve and manage the fishery resources. A summary of the report is attached with the Petition (FR Notice 2/8/80).

Attachment

MD

North Pacific Fishery Management

AGENDA H-2
April 1980
FOR INFORMATION TO AP

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REPORT TO THE SSC: SSC SUBCOMMITTEE FOR THE
REVIEW OF THE EDF PETITION ON THE NATIONAL STANDARDS GUIDELINES
April 8, 1980

The purpose of the meeting was to discuss the Environmental Defense Fund (EDF) Petition for the review of certain sections of the Guidelines for Development of Fishery Management Plans and to respond to the request for comments by National Marine Fisheries Service (NMFS) (FR 8686, February 8, 1980). Present at the meeting were Bert Larkins and Professor Edward Miles. Margaret Duff represented the Council staff. John Burns forwarded his comments which are incorporated in this document.

In reviewing the EDF Petition and the comments on the National Standards by NMFS, it becomes apparent that the nature and purpose of the guidelines should be restated.

The Fishery Conservation and Management Act (FCMA) specifically refers to (Sec. 301(b)) the preparation of guidelines to assist in the development of fishery management plans according to the National Standards. Thus, using the example in the EDF Petition, the request for the specification in the guidelines for a "minimum amount of information upon which an approvable plan must rest" implies that the guidelines will become regulations. This is not the intent of the FCMA.

Overall, the Petition was an attempt to review the effectiveness of the FCMA in relation to the conservation of fishery resources by making a review of the performance of certain Councils with respect to their actions on conservation issues. Assumptions were made that by modifying the guidelines, the perceived problems would be resolved. We find the result superficial and objectionable because there is no systematic

presentation of evidence. Examples were provided from the experiences of east coast fisheries, with one reference to the Caribbean Council. There is no knowledge of west coast fisheries and Councils. National Standards apply to all fisheries and Councils; thus any review of the guidelines should consider management under the FCMA in all regions.

In the development of the legislative basis of the emphasis on conservation in the FCMA, the author of the document neglected the fact that the Act was instituted for the conservation and management of the fisheries resources. The resulting legislation is a delicate balance between protectionism and over-exploitation.

It is important to note that most of the points raised in the EDF Petition promoting a conservative stand on fishery management issues have already been addressed by the North Pacific Council during the course of development of fishery management plans over the last two years.

Specifically, these points are briefly addressed as follows:

(a) The EDF criticized the existing guidelines for failing to specify the minimum amount of information necessary for management plans. It is the experience of the North Pacific Council that it is not appropriate to specify arbitrarily a minimum quantity of information. However, the North Pacific Council has identified gaps in data (see report by Socioeconomic Data Needs Subcommittee, Council Documents #2 and #6) and is currently developing a series of proposals to expand the data collection program to obtain needed data for the fishery management plans (Council Document in press). It is noteworthy that the changes proposed by EDF would essentially assure the long term deferrment of most fishery management plans. It is not reasonable to propose that all fishing be prohibited until all facts are available.

(b) The petition discusses "overfishing" and defines it as "...the level of fishing which results in the reduction in the capacity of a management unit to produce a maximum sustained yield for specified reasonably foreseeable habitat and environmental conditions..." Habitat and environmental conditions in the Bering Sea, for example, are not presently described adequately nor fully understood. The capability of predicting the environmental conditions for fisheries over a "reasonably foreseeable" period of time has not yet been developed.

Overfishing is also defined as that level of fishing that causes significant adverse impacts on other stocks or species not included in the management unit. If maintenance of the highest population levels of any interacting component of the ecosystem in question is a management goal, (i.e. marine mammals under some current interpretations of the MMPA), then any fishing at all would be considered overfishing; likewise, a goal of maintaining the health and stability of a marine ecosystem may preclude commercial fishing. The petition also states that "a determination of overfishing must consider both the relationship between that stock and other species or stocks and changes in the environment in which these species are found." This is a necessary consideration in the rational management of fisheries. However, the guidelines should not demand an unattainable data base. From a manager's perspective, the only practical way to make a determination of overfishing is to 1) consider responsible management programs for other significant components of a marine system in question, and 2) to establish the level of catch of the target species.

Fisheries managers cannot accept the EDF recommendation that even in severely depleted stocks, overfishing may be defined as a level of catch that delays return to former abundance. The issue is not that recovery to former abundance is delayed, but rather that it can occur over a reasonable period of time even if fishing occurs. This creates a problem for the management of species that fluctuate greatly or are cyclical. How does this operate in concern with

other nebulous demands concerning interaction of trophically related species? What is an "adequate reserve of reproducing adults" and what is meant by "rapid recovery from fluctuations?"

(c) The EDF proposed to modify traditional definitions of maximum sustainable yield (MSY). The proposed change is an incorrect definition of MSY. Rather than change the established concept of Maximum Sustainable Yield, the North Pacific Council established a new concept, the Acceptable Biological Catch, (ABC) which incorporates the short term effects of the environment on the stocks in the calculation of the available yield. The ABC concept has been used in all of the plans prepared by the North Pacific Council to date. It has also been the objective of the North Pacific Council to maintain healthy biological stocks over the long term and to rebuild, where possible, stocks that are depressed.

(d) The definition of a management unit in the petition refers to the authority of the Secretary of Commerce to manage transboundary stocks. It proposes that the Secretary determine whether "actions of relevant state authorities substantially and adversely affect the carrying out of a plan." This proposal would potentially generate more controversy than currently exists and the proposed solution would be counter productive.

(e) The request by NMFS for comments on factors to consider in the allocation of fishery resources both foreign and domestic seems to be an inappropriate means of approaching the more fundamental issues of OY, DAH and TALFF. These are the basic components of a fishery management plan. It is not clear what the purpose of this request is nor the response that should be made. To propose factors that must be considered when allocating fisheries resources without considering the allocation process in context of the objectives of the fishery management plan seems to be an unnecessary exercise.

(f) The concept of total ecosystem management is currently being developed by the Northwest & Alaska Fisheries Center in Seattle. It does not seem appropriate to discuss in a 50 or 100 word summary the complex innovative approach to multi-species multi-year management, as requested by NMFS.

It concerns the reviewers that this review has been handled in a relatively superficial manner by both EDF and NMFS, not only in their request for comments but also in proposed mechanisms for the analysis of comments sent to NMFS. Analysis by experienced professionals would seem to be more appropriate than "computer analysis of the complex issues."

AGENDA H-2 Attach.#2
APRIL 1980

FILE	ACT	INFO	ROUTE TO	INITIALS
			Exec. Dir.	
			A. Exec. Dir.	WMA
			Admin. Off.	
			Exec. Sec.	
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FEB 21 1980

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 602

Grant of Petition To Amend Guidelines for Development of Fishery Management Plans; and Advance Notice of Proposed Rulemaking

AGENCY: National Oceanic and Atmospheric Administration/Commerce.

ACTION: Grant of Petition to initiate amendment of 50 CFR Part 602, Guidelines for Development of Fishery Management Plans, and Advance Notice of Proposed Rulemaking.

SUMMARY: The National Marine Fisheries Service, NOAA, acknowledges receipt of and grants the October 10, 1979, petition of the Environmental Defense Fund to initiate amendment of guidelines for development of fishery management plans. This action constitutes an Advance Notice of Proposed Rulemaking to revise § 602.2 of 50 CFR 602, published July 5, 1977, at 42 FR 34458 (National Standards for Fishery Conservation and Management.

DATE: Comment is invited on § 602.2 of 50 CFR 602 and on those portions of the Environmental Defense Fund Petition that specifically address § 602.2 until April 15, 1980.

ADDRESSES: Copies of the petition of the Environmental Defense Fund are available from the Office of Resource Conservation and Management, NMFS, 3300 Whitehaven St., Washington, D.C. 20235.

All comments on the petition, on section 602.2, 50 CFR 602, and in response to the questions listed in this Notice should be submitted in writing to the Assistant Administrator for Fisheries, National Marine Fisheries Service, Washington, D.C. 20235.

FOR FURTHER INFORMATION CONTACT:
Daphne White, Office of Resource
Conservation and Management, NMFS,
3300 Whitehaven St., Washington, D.C.
20235. Phone: (202) 634-7218.

SUPPLEMENTARY INFORMATION: On
October 10, 1979, the Environmental
Defense Fund (EDF) filed a petition for
the amendment of a rule, as authorized
by 5 U.S.C. 553(e). Petitioner EDF
described itself as a national, non-profit
membership organization, with offices in
New York, Washington, D.C., Denver
and Berkeley, which encourages rational
scientifically sound solutions to a broad
range of environmental problems,
including problems of natural resource
management.

The petition, received by the National
Marine Fisheries Service (NMFS), seeks
to initiate a substantial review, revision,
and amendment to the Guidelines for
Development of Fishery Management
Plans (50 CFR 602) issued pursuant to
the Fishery Conservation and
Management Act (FCMA), 16 U.S.C.
1851.

EDF concerns center on the alleged
failure of § 602.2 of the Guidelines to
ensure that the conservation objectives of
the FCMA are implemented through
fishery management plans drawn up by
the Regional Fishery Management
Councils.

Specifically, they assert that the
Guidelines fail to:

Specify a minimum amount of
biological information upon which an
approvable plan must rest;

Give direction as to how a fish stock
may be managed throughout its range
when the range of the stock includes
both the fishery conservation zone and
state waters;

Identify long range strategies for
rebuilding and maintaining fish stocks;

Indicate how to allow for variations
among, and contingencies in, fishery
resources and catches; and

Provide adequate direction to the
Councils in establishing fishery
management plan objectives.

The National Marine Fisheries Service
agrees with EDF that the present
guidelines were promulgated at a time
when there was very limited experience
with the development of management
plans and that the considerable
practical experience gained since their
initial publication and revision has
identified ambiguities which NMFS is
now in a better position to clarify.
NMFS recognizes, in addition, that the
fishery management process is dynamic;
it expects that any guidelines will be
subject to change from time to time as
better ways are developed to carry out

the mandate of the Fishery Conservation
and Management Act.

The EDF petition specifically
addresses §§ 602.2, 602.3, and 602.5,
with particular emphasis on § 602.2,
National Standards for fishery
conservation and management. NMFS
has determined that only § 602.2, should
be opened for review and revision; the
other two sections are already being
revised under a separate and already
ongoing rulemaking process, through
which public comment has been, and
will be, solicited at the appropriate
times. Late in 1978 NMFS began work on
revising those sections of Part 602 that
govern plan development content
(§ 602.3), format (§ 602.4) and
procedures (§ 602.5). Extensive
consultation with environmentalists,
consumers, members of Congress,
Congressional staffs, members of
industry, Council members and staff,
other agencies, and NMFS headquarters
and regional staff resulted in an FCMA
handbook, "Operational Guidelines for
the Fishery Management Process",
which was published and distributed in
1979. The effort was directed towards
developing uniform procedures, and
towards stream-lining and improving the
overall plan development process. The
handbook is currently in use by
Councils, Council staffs, and NMFS
headquarters and regional staffs, and is
serving as the basis for modification of
§§ 602.3, 602.4, and 602.5. Public
comment on these sections will be
solicited when the revision is completed
and published in the Federal Register.
Also excluded from this review and
revision process are any parts of § 602.2
that may be affected by the ongoing
rulemaking which implements Pub. L.
95-354, an amendment to the FCMA.

In addition to the request for public
comment proposed by EDF, NMFS
would like comment on the following
National Standard issues:

- a. The minimum amount of biological,
ecological, economic and social
information upon which an approvable
plan must rest;
- b. Factors to consider in the allocating
of fishery resources, both foreign and
domestic;
- c. Factors to consider in promoting
efficiency for full utilization of fishery
resources; and
- d. In furtherance of the concept of
total ecosystem management, identify:
(1) Conditions under which a biomass
regime could allow over-fishing of
certain of the biomass elements; and (2)
Factors to consider in treatment of
predator/prey interrelations.

Commenters are requested to submit,
if possible, a 50-100 word summary of

their major areas of concern so as to
speed up computer analysis of the
complex issues and facilitate future
public access. This request for an
abstract is not a requirement; it in no
way limits the length or content of any
comment, nor the consideration that will
be given to any comment.

While NMFS is granting the EDF
petition, NMFS has not prejudged the
ultimate outcome of the review and
revision. The rules NMFS will propose
as a result of this effort may or may not
include the specific regulatory
suggestions made by the EDF.
Regulations issued on July 5, 1977 (42 FR
34458) remain in effect during the review
and revision process described in this
Notice.

Signed at Washington, D.C., this 5th day of
February, 1980.

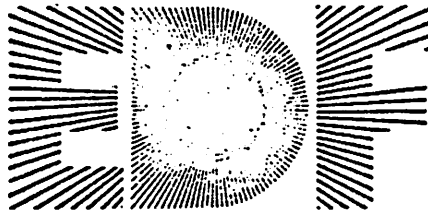
(16 U.S.C. 1851).

Dated: February 5, 1980.

Winfred H. Meibohm,
*Executive Director, National Marine
Fisheries Service.*

[FR Doc. 80-4455 Filed 2-7-80; 10:53 am]

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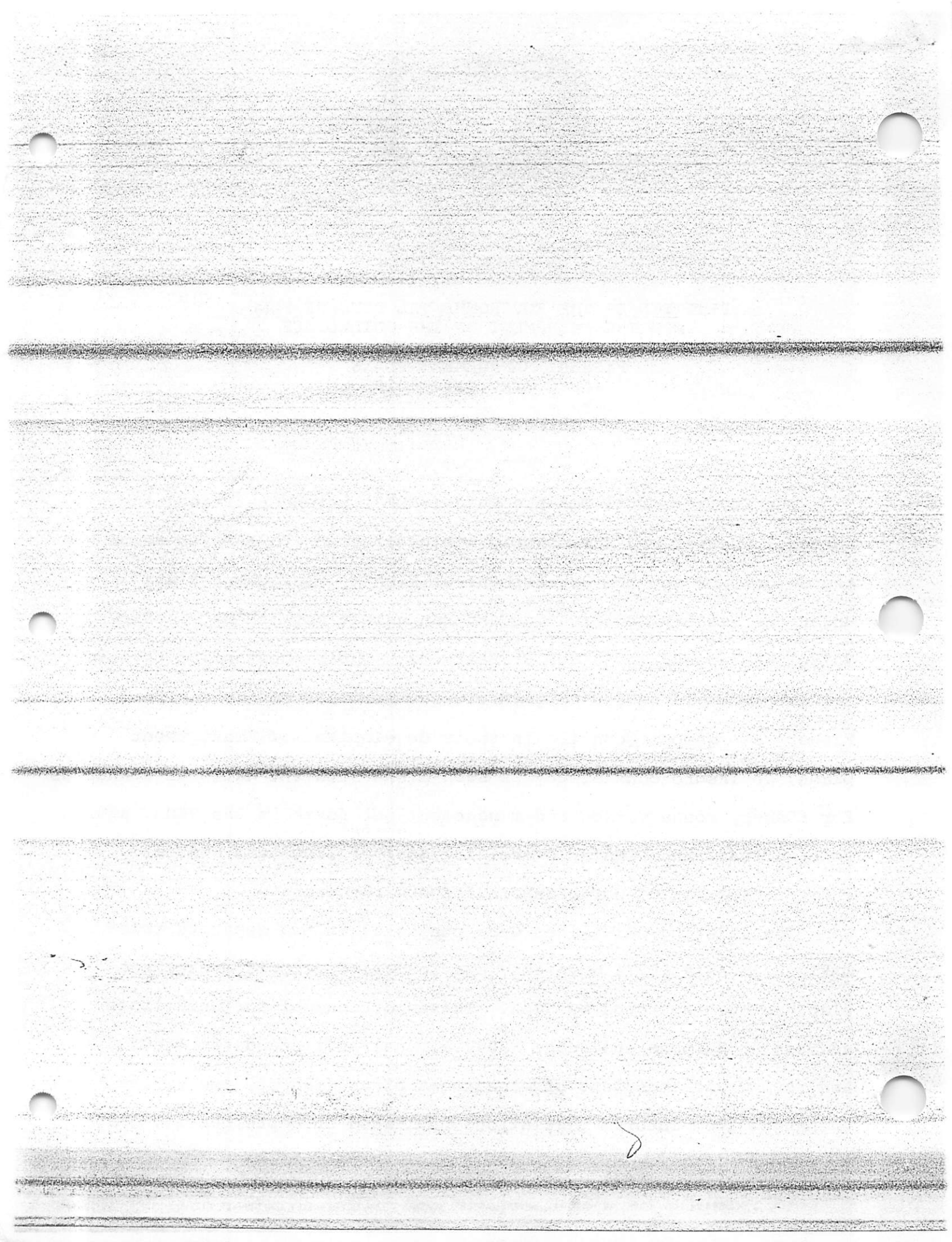


PETITION OF THE ENVIRONMENTAL DEFENSE FUND
FOR THE AMENDMENT OF THE GUIDELINES
FOR DEVELOPMENT OF
FISHERY MANAGEMENT PLANS
(50 C.F.R. Part 602)

October 10, 1979

The Environmental Defense Fund ("EDF") hereby petitions the National Oceanic and Atmospheric Administration ("NOAA") to amend the Guidelines for the Development of Fishery Management Plans under the Fishery Conservation and Management Act ("FCMA"). Such Guidelines appear in 50 C.F.R. Part 602. Their substantial revision and amendment is needed to give clearer guidance to the Regional Fishery Management Councils in their development of management plans, to insure consistency of such plans with the national standards for fishery conservation and management set forth in the FCMA, and to effectuate the FCMA's overriding goal of long-term stability and conservation of our offshore fishery resources.

The existing Guidelines were published in two separate rule-makings in July 1977, when only one Council-developed management plan had been approved by NOAA. Those portions of the Guidelines addressing purpose and scope (§602.1), national standards (§602.2), and review and amendment of management plans (§602.5) are virtually unchanged from interim regulations published on September 15, 1976



(41 Federal Register 39436 et seq.), only five months after enactment of the FCMA, and before any Council-developed plan had been submitted for NOAA approval. When such interim regulations were subsequently published as final Guidelines, NOAA specifically advised that certain provisions were being further considered and were likely to be revised following such further consideration. See 42 Federal Register at 34449, 34452 (July 3, 1977). To date, there has been no further revision of those or any other provisions of the Guidelines.

The remaining portions of the Guidelines, governing content and standard format of management plans (50 C.F.R. §§602.3 and 602.4), were published separately as interim regulations on July 18, 1977 (42 Federal Register 36985). Though public comment was solicited thereon through September 16, 1977, no further action has been taken in the more than two years since the public comment period closed, and these portions of the Guidelines therefore remain as interim regulations.

Because the existing Guidelines are, in part, only interim measures, because they were promulgated at a time when there was very limited experience with the development of management plans, and because the considerable practical experience gained since their publication has revealed serious deficiencies in the Guidelines, EDF believes that the time has come for a thorough review and revision of those Guidelines. This petition formally calls for that review and revision. It identifies what, in EDF's view, are some of the major deficiencies of the existing Guidelines and suggests specific amendments to correct those deficiencies.

The Petitioner

EDF is a national, non-profit membership organization incorporated in the State of New York. Its more than 45,000 members are served by a staff of scientists, economists, and lawyers in offices in New York, Washington DC, Denver, and Berkeley. Since its founding in 1967, EDF has encouraged rational, scientifically sound solutions to a broad range of environmental problems, including problems of natural resource management. Through research, public advocacy, and litigation, EDF has sought to protect habitat vital to fish and other wildlife, including tidal wetlands, coral reefs, and prime fishing grounds, EDF has also promoted sound management of living natural resources and has, since enactment of the FCMA, closely monitored its implementation. EDF has studied carefully the planning process which is the subject of this petition and has commented extensively on several of the management plans thus far developed under the FCMA.

The Problem

The FCMA was intended to bring about a major change in offshore fisheries management, to halt the accelerating trend toward depletion of fish stocks, and to assure long-term stability and conservation of our offshore fishery resources. Prior to passage of the FCMA, offshore fisheries management was accomplished through a maze of international treaties, voluntary agreements among states, and limited federal initiatives. The failure of that system to prevent overfishing of fish stocks was almost universally recognized. Thus, despite reservations by President Ford, the State Department and segments of the international community, Congress, because of its overriding concern for declining fish stocks, swept the existing management

system aside by passing the FCMA.

The legislative history^{1/} of the FCMA shows clearly the congressional purpose of implementing a conservation-oriented regime which would place the long-term interests in stable and sustainable fisheries above more immediate pressures, the satisfying of which had been the cause of the problems the FCMA was intended to correct.

This purpose is apparent in the Senate Commerce Committee Report:^{2/}

[The national fishery management] program is premised upon the committee's conclusion that the Nation's fishery resources must be conserved and managed in such a way as to assure that a supply of food and other fish products is available on a continuing basis so that irreversible or long-term adverse effects on fishery resources or on the marine ecosystem are rendered highly unlikely.

The same emphasis on conservation is found even in the report of the Senate Armed Services Committee:^{3/}

Due to massive overfishing off both the Atlantic and Pacific coasts, U.S. coastal fishery stocks have been steadily depleted. The depletion of some stocks has been so severe that they have become virtually extinct for the purposes of commercial fishing. . . . The crisis condition of these stocks is such that if conservation measures are not quickly implemented, some stocks may be depleted beyond the point of self renewal. . . .

In the face of extensive and continual overfishing, fishing stocks can now be renewed only through aggressive conservation measures regulating the allowable catch quota for individual species of fish. The Committee is convinced that a comprehensive fishery resource conservation program is sorely needed.

1. A Legislative History of the Fishery Conservation and Management Act of 1976 Together with a Section-by-Section Index, for the use of the Committee on Commerce and National Ocean Policy Study, October 1976 (hereinafter "Legislative History").

2. Legislative History, p. 657.

3. Id. pp. 572-73.

The Conference Committee Report, in its discussion of the national standards for fishery conservation and management, likewise accented the long-range focus of the Act:^{4/}

These standards . . . are designed to assure that management plans and regulations take into account the variability of fish resources, the individuality of fishermen, the needs of consumers, and the obligations to the general public, now and in generations to come. [Emphasis added.]

The same emphasis on long-term conservation found in the various committee reports was echoed during the floor debates. Perhaps the most succinct statement of the fundamental goal of the FCMA was made by Senator Stevens at the height of the Senate floor debate. ". . . . What we are trying to do is prevent the growth of overfishing," he said, and "What we seek, in this bill, is a conservation goal, not an economic goal. . . ." ^{5/} The long-term benefits that conservation was expected to yield are reflected in provisions of the FCMA that underscore the stability and continuity that would result from management reform. For example, in section 2(a)(5), Congress states in its initial findings that:

Fishery resources are finite but renewable. If placed under sound management before overfishing has caused irreversible effects, the fisheries can be conserved and maintained so as to provide optimum yields on a continuing basis. [Emphasis added.]

It is also repeated in the FCMA's statement of purpose in section 2(b)(4):

to provide for the preparation and implementation, in accordance with national standards, of fishery management plans which will achieve and maintain, on a continuing basis, the optimum yield from each fishery. [Emphasis added.]

4. Id. pp. 86.

5. Id. pp. 372-73.

Despite the congressional expectation that the management reforms mandated by the FCMA would halt the decline in fish stocks by elevating long-term conservation interests over short-term exploitation pressures, there is little evidence to date that any significant reform has been achieved, apart from the reduction or elimination of foreign participation in certain fisheries. More importantly, there appears to be little likelihood that the management plans being developed and approved today will make any significant contribution to the conservation objectives set by Congress. This failure stems in part, EDF believes, from the failure of NOAA's existing Guidelines to insure that congressional purposes are implemented through such plans.

EDF's study of the planning process and the plans produced to date revealed certain recurrent problems that the existing Guidelines inadequately address. Principal among these is the problem of insufficient biological information. Although the FCMA requires that the conservation and management measures comprising a management plan be based upon the best scientific information available, there is in fact frequently very little high quality biological information available. Serious inadequacies in the biological data base underpinning a management plan undermine the FCMA's goals of preventing overfishing and insuring that conservation and management measures take into account and allow for contingencies affecting fishery resources. The existing Guidelines fail to specify any minimum quantum of information upon which an approvable plan must rest, or to indicate how the unavailability of certain types of information should be reflected in the conservation and management measures comprising a plan. Finally, the Guidelines neither

require nor even recommend that plans include measures intended to generate the type of information presently lacking. In short, the Guidelines do little more than exhort the Councils to "do your best." Sufficient experience has been gained by now for the Guidelines to be revised so as to give more concrete, and more helpful, guidance.

The absence of certain types of biological data can have a critical impact on certain of the most fundamental determinations that must be reflected in a management plan. For example, the calculation of optimum yield must begin with a determination of the maximum sustainable yield ("MSY"), a biological concept. Each of the various ways of determining MSY, however, rests in part on tenuous assumptions and data which is often incomplete or speculative. The "soft" data generally available for these biological calculations contrast sharply with the much harder data nearly always available concerning the economic requirements of the fishery. As a result, the pressure to "fudge" the MSY calculation is great where a conservative calculation could intervene with the perceived economic requirements of the fishery. The calculation of MSY for the surf clam fishery as the historic average harvest over a period that includes egregious overharvesting, and that thus builds into the calculation the historical factors that led to the near collapse of the fishery, is a case in point.

An even more bizarre example of the application of the "best scientific information available" standard can be found in the draft reef fish management plan recently prepared by the South Atlantic Council. The offshore reef fishery uses a number of techniques to catch fish associated with coral reefs, including

nets, diver-held devices, hook and line, and fish traps. Traditionally, the fishery has been diversified, with many small operators plus a number of charter boat fleets. The importation of fish trapping techniques from Caribbean countries has opened up new areas of the fishery conservation zone to increasing exploitation. Little is known about the impact of these traps on reef ecosystems except that they are non-selective, attracting large individuals of a number of species. There is no question, however, that they are an effective fishing technique and reports of large catches abound. Coral reefs, particularly those in the Florida Reef Tract, support an abundance of fish and shellfish and attract hundreds of recreational drivers; decisions on a consumptive fishery must therefore reflect the multiple uses of this resource. The absence of information concerning the impact of traps ought to dictate caution until their full effect is known and a balance can be struck between competing interests. Unfortunately, the Council has not taken this approach to date, using the "best available information" standard as the justification for its proposed actions.

Thus far, the Council has insisted that the FCMA prevents regulation of fish traps unless the best scientific information available indicates that controls are needed. This interpretation will permit unlimited fishing of a stressed resource using technology which may devastate certain reef fish stocks. Later gear restrictions would only be applied once damage to the resource had already occurred. As a practical matter, only a severe decline in the fishery would provide the evidence needed to support these

unpopular regulations. Thus, citing the second national standard, the Council has chosen to permit a completely unregulated fishery at this time, despite the well-known multiple use conflicts over, and perilous condition of, coral reefs in the Fishery Conservation Zone. Such an approach, while popular with the commercial trap fishermen, effectively negates the conservation goals of the FCMA.

A further recurrent problem in the planning process stems from the failure of the Guidelines to explain the operative relationship between the FCMA's directive to manage each fish stock as a unit throughout its range and its provisions relating to jurisdiction within the 3-mile coastal territory. Where the range of a fish stock includes both the fishery conservation zone and state waters, as many do, the Guidelines fail to give direction as to how this factor is to influence the development of a management plan for that stock. Yet, without such guidance, the Secretary may not be able to carry out effectively the duties imposed upon him by Section 306 of the FCMA.

In EDF's view, both the national standard requiring management of each fish stock as a unit throughout its range and the duty of the Secretary under Section 306 to review the impact of state actions on approved plans require that management plans be developed with a view to the conservation of the resource throughout its range, including waters under state jurisdiction. Specific regulatory measures to achieve the goals of the plan may not be implemented within such state waters, however, unless the Secretary makes the pre-emption determinations authorized by Section 306(b). What is key to the proper functioning of the planning process, however, is that plans must be based upon the

conservation needs of the resource throughout its range, without regard to existing or assumed state measures in state waters. Once a plan is developed on that basis, the Secretary can then determine whether state action or inaction will substantially and adversely affect the carrying out of the plan.

Under the present Guidelines, which fail to address this issue, plans can be developed which take as a given the existing, or an assumed future, state management measures. The plan is then developed for the stock in the remainder of its range, and state action, almost by definition, will necessarily be compatible with it. This effectively deprives the Secretary of the responsibility Section 306 places upon him. This problem is not merely hypothetical, for it was well illustrated by the New England Council's effort to develop a plan for Atlantic herring, for which there is both inshore fishing for juveniles and offshore fishing for adults. Other fisheries where similar problems exist include the Pacific salmon and Gulf shrimp fisheries.

A further recurrent shortcoming of many plans developed to date that would be remedied through revised Guidelines is their failure to identify, and stick to, long range strategies for rebuilding and maintaining fish stocks. Prior to the FCMA, the United States fishing industry was in a state of general decline and much of its equipment was outdated or worn out. Uncertainties over the effects of declining fish stocks and rising imports discouraged new investment in the industry. The FCMA was intended, in part, to remedy these ills, and among its primary objectives was the long term stability of fish stocks and the fishing industry. Unfortunately, however, the management plans thus far

developed seldom establish long-term objectives or even assess the long-term biological impacts of proposed quotas. The emphasis, indeed, is on allocation rather than conservation. In those few instances where long-term stock restoration objectives have been established, they have sometimes been subsequently sacrificed as a result of immediate economic pressures.

The need to put fishery management on a long-term planning basis is reflected in the FCMA's national standard requiring that conservation and management measures take into account and allow for variations among, and contingencies in, fisheries, fishery resources and catches. Rather than develop a planning process and plans which anticipate such variations and contingencies, however, unexpected developments (whether biological as in the case of a greater than expected year class, or economic, as in the case of a sudden increase in wholesale fish prices) more typically precipitate emergency and nearly chaotic responses. Illustrative are the nearly thirty revisions to the New England ground fish plan in only two and one-half years. Such experience underscores the need to develop clearer guidelines elucidating the national standard referred to above as well as more vigorous guidelines governing the amendment of plans once approved.

Congress was itself clear, in passing the FCMA, that the "variations and contingencies" standard was designed to introduce a conservative (and therefore conservation-oriented) bias in management planning. The Senate Commerce Committee Report highlights the importance of taking into account unexpected declines in fish populations and explains this standard as

follows:^{6/}

There can be great uncertainty with regard to the locality, size, and even the very existence of fish stocks. There are often great peaks and valleys in annual catch statistics for many fisheries....Therefore, there must be a margin of error in the management system to provide a buffer in favor of the resource. (emphasis added)

As argued earlier, the same principle applies when important biological information upon which management decisions must be based is missing -- those decisions should provide a buffer in favor of the resource. The Guidelines should explicitly incorporate this legislative purpose.

The final recurrent problem evident in the plans developed to date, a problem which perhaps represents a composite of the various problems discussed above, is the evident confusion about the objectives of fisheries management under the FCMA. To a certain extent this confusion is understandable since the FCMA in fact represents an amalgam of views and tries to accommodate simultaneously a variety of potentially conflicting interests. The commercial fishing industry representatives on the regional councils emphasize the maximization of catch and the exclusion of foreign competitors and protest efforts to apply the FCMA's regulatory authority to American fishermen. Recreational fishermen emphasize the interests of most value to them. State government representatives see in parts of the FCMA a reaffirmation and strengthening of their own authority, while federal interests emphasize the need to give unified direction. Despite the deference that the FCMA gives to these various interest, the ultimate responsibility for reconciling its disparate purposes

6. Id., p. 687.

is given to NOAA, which must approve or disapprove the management plans submitted to it. The FCMA directs NOAA to promulgate guidelines, based on the national standards, to assist in the development of management plans. It is in those guidelines that NOAA can spell out how the broad purposes of the FCMA and its national standards are to be translated into concrete direction for the councils which, in the first instance, must prepare management plans. The existing Guidelines do not adequately deal with a number of recurrent problems that are evident in the planning process, and should therefore be improved.

Provisions in Need of Revision

Section 602.2(b). Standard 1-Prevention of Overfishing and Achievement of Optimum Yields.

The FCMA's first national standard has two related, but distinct, goals. They are: (1) the prevention of "overfishing" and (2) the achievement of an "optimum yield" from each fishery. It is clear from this standard and from the FCMA's definition of optimum yield (§3(18)), that the latter goal focuses upon individual fisheries. The former goal, however, is not expressly so limited by the statute and may in fact require an evaluation of relationships among fisheries or of relationships between individual fisheries and other elements of marine ecosystems. Nonetheless, the existing Guidelines define "overfishing" solely with reference to individual management units. This is a questionable limitation in light of the language and purposes of the FCMA.

A meaningful definition of "overfishing" depends upon the objectives of management. The traditional approach of fishery managers has been to maximize the catch of a particular stock with the level of fishing serving as the only manageable variable.

Outside factors, such as a change in habitat or inter-relationships with other species, are generally ignored or assumed to be static. Convention, therefore, might look upon "overfishing" as a level of catch higher than the pre-determined maximum sustainable yield ("MSY") of the fishery. This conventional view, however, is ill-suited to the language of the FCMA because the prescription of optimum yields from each fishery already incorporates MSY as a limitation on fishing effort.

A definition of overfishing more appropriate to the FCMA requires a consideration of broader management objectives. If the fish stock in question is assumed to be part of a larger system, a determination of overfishing must consider both the relationship between that stock and other species or stocks and changes in the environment in which these species are found. Rather than simply looking at a single variable -- the level of catch -- other factors that influence population size must be taken into consideration. While such an approach may complicate management efforts, it is a complication required by the FCMA, which was intended to alter many conventional management practices.

EDF believes that a broader definition of overfishing than that contained in the existing Guidelines is required. Among other things, the definition of overfishing should reflect reasonably foreseeable environmental conditions. If a stock has been severely depleted, "overfishing" may be defined as a level of catch that delays or prohibits a return to former abundance. If a species is prone to sudden, unpredictable changes in population size, overfishing would occur if catch prevented maintenance of an adequate reserve of reproducing adults to permit

rapid recovery from such fluctuations. If the stock in question serves as a food fish for other marine species, like porpoises or seals, or if fishing directed at that stock otherwise significantly affects other species, overfishing could occur when such other species were significantly and adversely affected as a result of a given level of fishing activity.

The prevention of overfishing is only one of the two goals of the FCMA's first national standard. The second is the achievement of an optimum yield from each fishery. The definition of optimum yield (§3(18)) requires that a calculation of maximum sustainable yield ("MSY") serve as the starting point for determining optimum yield. The FCMA, however, neither defines MSY nor endorses any particular method for its calculation, of which there are many.

The concept of MSY rests upon the assumption that in a virgin stock of fish, natural mortality is balanced by growth and recruitment. Once a constant fishing pressure is applied, the standing stock of the population reaches a new equilibrium at which growth and recruitment are balanced by natural and fishing mortality. The traditional MSY calculation assumes no changes in the environment and produces an estimate of available "surplus" fish at a particular point in time. The key concepts in this simple explication of MSY are balance, equilibrium, constant fishing pressure, and the assumption of no changes in the environment. Unfortunately, none of these concepts reflects the circumstances under which the National Standards of the FCMA were actually written.

The FCMA was passed by Congress, despite strong foreign policy reservations, because of an overwhelming concern for declining fish stocks. There was a clear consensus among the FCMA's sponsors that rising fishing effort was destroying the "equilibrium" between

catch and natural recruitment. In specifying standards for fisheries' development, however, Congress adopted the traditional terminology of fishery biologists, and the concept of MSY is embodied in the Act. Inclusion of maximum sustainable yield in the FCMA does not necessarily mean, however, that any particular approach to its calculation was mandated by the sponsors of the Act. In fact, Congress expressed a certain amount of discomfort over the conventional application of this concept.^{7/}

An appropriate definition of MSY that would be responsive to congressional concerns should reflect the broadened objectives and the conservation orientation of the FCMA. In particular, to insure against the collapse of a fishery, some sort of minimum acceptable stock size must be assured by the MSY calculation. This minimum stock size must be such as to insure the survival of the stock and to provide a buffer against both predictable and unexpected population fluctuations. The FCMA's emphasis upon sustainability requires that the calculation of MSY prevent a level of fishing which forces stocks below a specified minimum population size and structure. This, EDF believes, requires a broadening of the existing definition of MSY in the guidelines.

Section 602.2(c). Standard 2-Best Scientific Information Available.

The major shortcoming of this provision of the Guidelines is its failure to indicate the operative consequences of the unavailability of certain important scientific data. Revisions are needed to indicate how the unavailability of such data should be reflected in the conservation and management measures comprising a plan and to insure that progress in attaining presently lacking data is made.

7. See the Report of the Senate Commerce Committee, id., pp. 676-77.

Section 602.2(d). Standard 3-Stock Management Throughout Its Range.

The existing Guidelines that implement this standard fail to give clear guidance with respect to the development of plans for fish stocks that are found both in the fishery conservation zone and in state waters. Revisions are needed to insure that Secretarial review functions mandated by Section 306 of the FCMA can be effectively carried out.

Section 602.2(g). Standard 6-Variations and Contingencies.

The sixth national standard of the FCMA recognizes the many uncertainties that plague fishery management and the need to exercise caution in the face of these uncertainties. The purpose of this provision was explained in the Senate Commerce Committee Report as follows:^{8/}

There can be great uncertainty with regard to the location, size, and even the very existence of fish stocks. There are often great peaks and valleys in annual catch statistics for many fisheries. . . . Therefore, there must be a margin of error in the management system to provide a buffer in favor of the resource.

The sixth national standard therefore reinforces the conservation bias evident throughout the Act.

Existing Guidelines do little to translate this standard into pure scientific directives. They neither identify the types of data and analysis needed to satisfy this standard nor do they indicate how compliance with the standard is to be assured where such data and analysis are unavailable. Revisions to add greater specificity to the Guidelines in these respects are suggested.

8. Id. p. 687.

Section 602.3. Contents of Fishery Management Plans.

A variety of changes throughout this portion of the Guidelines are needed in order to conform to the suggested revisions of the Guidelines concerning the national standards.

Section 602.5(d). Amendments to Plans.

The Guidelines concerning the amendment of management plans give little guidance concerning the circumstances under which plan amendment is appropriate. The need for clearer guidance is evidenced by the repeated amendment and reamendment of certain plans.

Specific Changes Recommended

In this final part appear the specific language changes in the Guidelines which EDF petitions NOAA to adopt. Language to be deleted appears in brackets; language to be added (except for headings) is underlined.

Section 602.2. National Standards for Fishery Conservation and Management

. . .

(b) Standard 1. Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery.

(1) Overfishing. Overfishing is a level of fishing that results in (i) a reduction in the capacity of a management unit to produce maximum biological yield on a sustained basis for specified reasonably foreseeable habitat and environmental conditions[.] or (ii) significant adverse impacts on other species or stocks not included in the management unit.

(2) Maximum Sustainable Yield (MSY). The MSY from a fishery is the largest [average] annual catch or yield in terms of weight of fish caught by both commercial and recreational fishermen that can

be taken [continuously] from a stock without forcing it below a specified minimum population level and structure [under existing environmental conditions]. The specification of a minimum population level and structure shall take into account environmental variables and periods of poor recruitment and shall include an increment of unharvested fish sufficient to assure reasonably rapid recovery of a stock after an unexpected decline. In specifying an acceptable minimum population level and structure, care shall be taken to insure that traditional spawning or recruitment patterns are not significantly altered as a result of fishing effort and that significant adverse changes in the distribution and age structure of the stock are avoided.

A determination of MSY, which should be an estimate based upon the best scientific information available, is a biological measure necessary in the development of optimum yield.

* * *

(c) Standard 2. Conservation and management measures shall be based on the best scientific information available.

* * *

(3) Availability of information. The type and extent of scientific information available may vary substantially from fishery to fishery. The lack of complete scientific information concerning a fishery shall not prevent the preparation and implementation of a fishery management plan. However, to the maximum extent possible, fishery management plans shall incorporate measures designed to generate, or assist in the generation of, information needed to assure an improved scientific basis for such plans. In all cases, fishery management plans shall take into account the inadequacies of the existing scientific data bases by providing a suitable buffer in

favor of conservation. Councils should identify all significant information gaps and indicate the manner in which such additional information could be acquired [need for acquisition of additional information]. As better data becomes available, plans should be modified.

(d) Standard 3. To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and inter-related stocks of fish shall be managed as a unit or in close coordination.

(1) Management unit. It is expected that the management unit will incorporate the entire range of a stock of fish to the extent practicable. Where management units cross Federal-State boundaries, Councils shall identify those conservation and management measures most appropriate for the conservation and management of the entire resource and shall include all such measures in their fishery management plans, leaving to the Secretary the determination whether actions of relevant state authorities substantially and adversely affect the carrying out of such plans. Also, a unit should, to the extent practicable, comprise several stocks that are ecologically inter-related or are affected as a group by fishing practices. Management units may be broadly defined to take account of the multitude of fishing practices that can include effort directed toward: (i) A single stock of fish found in a certain area; (ii) different stocks of fish caught by the same vessels or gear; (iii) all the stocks in a certain area, and so on.

* * *

(3) Interrelationship of species/habitat. The broad, long-term goal of the several plans developed by each Council should be to

optimize the benefits from the total [weight] variety of all forms of marine animal and plant life within the Council area of authority. This goal requires an emphasis upon management of interrelated groups of species. Management plans should also (i) address the impact of pollution and the effects of wetland and estuarine degradation upon the stocks of fish throughout their range; (ii) where possible, identify the most significant causes or sources of such pollution and habitat degradation and the federal, state, or other authorities having jurisdiction to regulate or influence such problems; and (iii) make such recommendations as may be helpful in alleviating such problems.

* * *

(g) Standard 6. Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources and catches.

* * *

(2) Flexibility in plan development and implementation.

Sufficient flexibility must be built into the fishery management process to allow for timely response to unforeseen changes, either man-caused (e.g., changes in catch size) or natural (e.g., spawning failure). To the extent that information is available, every effort should be made to develop fishery management plans that take into account these variations and provide a suitable buffer in favor of conservation. A similar buffer in favor of conservation should be provided whenever information on potential variations is unavailable. In evaluating the need for flexibility, consideration should be given to the completeness of fishery data available, future availability of improved data, and the ability of the fishery to adjust to new regulations. Constant acquisition and analysis of fishery and resource data will help reduce uncertainty.

To the maximum extent practicable, Councils should respond to changes in the fishery and the resource and additional information by including in management plans mechanisms for the automatic adjustment of the conservation and management measures comprising such plans and, in exceptional cases, by amending management plans and by proposing improved management techniques.

* * *

Section 602.3. Contents of Fishery Management Plans.

* * *

(b) Explanatory comments.

* * *

(5) Description of the stock(s) comprising the management unit.

* * *

(ii) Abundance and present condition. Assess and specify the present abundance and biological condition of the stock(s). Such assessment and specification should identify major data elements that are either missing or speculative.

* * *

(iv) Estimate of MSY. Specify the MSY of the stock(s) based upon the best scientific information available. Summarize the information used in making the specification and the manner in which MSY was calculated.

(v) Probable future condition. Specify the probable future condition of the stock(s), if present conditions and trends continue, and indicate the expected impact on such future conditions if the proposed plan is implemented.

* * *

(14) Specification and source of pertinent fishery data -- (i)

General: The plan shall specify pertinent data that shall be submitted to the Secretary by participants in the Fishery. Specification of data shall take into account the inadequacies of the existing scientific information base and the effort necessary to collect such data. Effort should be minimized through careful selection and standardization of data elements, the periodicity of collection, recordkeeping, and reporting. Regulations with regard to the confidentiality of these statistics are set forth in Part 603.

* * *

Section 602.5. Procedures for Development, Review and Amendment of Fishery Management Plans.

* * *

(d) Amendments to Fishery Management Plans.

* * *

(3) Amending the Plan. Based on this review, or for other reasons, a Council may amend the plan. Where an amendment is proposed less than one year following plan approval or amendment, the Council shall describe the circumstances presently thought to exist which were not foreseen at the time of prior approval or amendment, and shall clearly indicate why, in its view, such circumstances were not then reasonably foreseeable. Proposed amendments shall include appropriate mechanisms for timely response to similar changed circumstances in the future. The procedures for Council preparation and approval of an amendment (e.g., hearings, majority vote, and transmittal to the Secretary) are the same as those that apply to a management plan. The same procedures as for a plan also apply when an amendment is disapproved or partially disapproved by the Secretary and returned to the Council for modification.

Respectfully submitted,

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