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Guidelines for Fishery Management Plans

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 602

[Docket No. 21130-240]

Guidelines for Fishery Management Plans

AGENCY: National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule.

SUMMARY: NOAA is revising the national standard guidelines for fishery conservation and management issued in July 1977 under the Magnuson Fishery Conservation and Management Act (the Act). The seven national standards of the Act represent statutory criteria and principles with which all fishery management plans (FMPs) must be judged consistent by the Secretary of Commerce. The Act requires the Secretary to issue guidelines based on the national standards to assist in the development and review of FMPs, their amendments, and regulations. Review and revision of the 1977 guidelines was needed to update and codify them to reflect current Secretarial interpretations and several years of operational experience in resolving fishery management issues. The guidelines are designed to improve the quality of FMPs by providing clearer, more comprehensive guidance and to produce a more uniform understanding of the Secretary's basis for FMP review and implementation.

DATE: Effective February 18, 1983.

FOR FURTHER INFORMATION CONTACT: Daphne White, Office of Fisheries Management, NMFS, 3300 Whitehaven Street, N.W., Washington, D.C. 20235, telephone (202) 634-7218.

SUPPLEMENTARY INFORMATION:

Background

The guidelines NOAA has revised are currently found at 50 CFR 602.2, published on July 5, 1977, at 42 FR 34458. The Environmental Defense Fund (EDF) petitioned the National Marine Fisheries Service (NMFS) in October 1979 to initiate review and revision of all of Part 602. On February 8, 1980, NMFS granted the petition, in part, and issued an Advance Notice of Proposed Rulemaking (ANPR). The ANPR solicited comments on only those portions of the petition related to the national standards (Section 602.2), and on certain other national standard issues not addressed in the petition for which public comment was also deemed advisable. The ANPR was published at 45 FR 8686.

The major issues identified by the 45 commenters on the ANPR as needing policy clarification included establishment of fishery management objectives and consideration of short- vs. long-term effects of management regimes, and arose from the full range of national standard principles. A series of four regional workshops was held in September 1981, with personnel from NOAA and the Regional Fishery Management Councils, to examine feasibility and to discuss rationale directly with those to be affected. The proposed guidelines—Notice of Proposed Rulemaking (NPR), published on June 23, 1982, at 47 FR 27228—addressed the issues raised as a result of the EDF petition, the ANPR, the workshops, and the written followup comments to the workshops. Excerpts adapted from the NPR preamble and other relevant material providing useful explanatory information are retained as an Appendix to this publication.

Overview of Issues and Rational

Eighteen comments were received from outside NOAA: four Regional Fishery Management Councils (Councils), six State marine resource divisions, three commercial fishing interest associations, one environmental group, and four regional/Federal commissions/agencies. Four Councils wrote to say they had no further comments. Five issue areas continued to provoke serious comment: multi-species management, overfishing, achievement of OY, limited access, and the role of the Councils. The same generalizations may be applied regarding the approach of the commenters to the NPR as were made concerning the public response to the ANPR: industry generally supported flexibility and decentralization of fishery management decisions, while environmentalists favored more centralized direction. Many of the suggested changes were primarily editorial in nature, speaking to the need for clarification or further illustration. In general, NOAA's response was: (a) To maintain policy positions since they had been derived, for the most part, from decisions reflected in approved FMPs and discussed widely at the workshops, (b) to balance opposing points of view, and (c) to clarify the ambiguities. Many of the changes in the final guidelines are, in fact, refinements and clarifications, and as such are not necessarily addressed individually in the body of the comments and response section.

The statutory language of each standard is presented as paragraph (a) under the appropriate section of the guidelines.

Comments and Response

Section 602.2 Style Guide

1. Comment: Three commenters wanted definitions added to this section, to cover "maximum biological yield," "maximum economic yield," and "growth, localized, pulse, and economic" overfishing. The definition of "must" concerned five commenters, with objections centering on including "logical extension" (of the Act), and "national policy."

Response: NOAA did not add any of these definitions; changes were made in the definition of overfishing designed to make the meanings better understood (discussed under 602.11(d)(1)). Explanations of some of the overfishing descriptors are in the Appendix. NOAA retained "logical extension" as the essence of what interpretive guidelines do; every use of the word "must" was reviewed and five were changed. Reference to "national policy" was deleted.

Section 602.10 General

2. Comment: One commenter felt that any discussion of fishery management objectives in the guidelines was inappropriate because objectives are not mentioned in the Act.

Response: 602.10(b) and 602.11(e)(1) were retained because NOAA believes the establishment of objectives is central to the application of the national standards. Management measures cannot be judged except as they are directed to the achievement of an objective; the objectives of each FMP provide the context within which the Secretary judges consistency with the standards, the Act, and other applicable law.

Section 602.11 Standard 1

Overview

All but two of the commenters had things to say about this standard, in 38 separate suggestions. Comments were directed to the specific paragraph headings: (c) MSY, (d) Overfishing, (e) Specification of OY, (f) OY as a target, and (g) OY and foreign fishing. Most of them, however, can be aggregated under the two broad policy categories of the standard: Overfishing and achievement of OY. The comments and responses are grouped under these broader classifications, with appropriate reference to specific individual paragraph headings and numbers as necessary. Many of the comments focused on the need for clarification or

further explanation; all of these were taken into account, and appropriate changes were made but may not be cited individually in the preamble. Some of the commenters questioned NOAA's use of the terms "may," "should," and "must." All of these were reviewed, the usage was reevaluated and appropriate changes were made, but they are likewise not necessarily addressed individually. The preamble discussion centers, rather, on significant areas of disagreement among the commenters themselves, and disagreement of the commenters with NOAA's approach.

Overfishing

3. Comment: Four commenters expressed concern about the phrase "maintain or recover to" in the definition of overfishing (602.11(d)(1)), although from opposite perspectives. Two suggested deleting "maintain or"; two suggested deleting "or recover to." The problem is that using the two verbs together can be interpreted to define two separate stock levels: One, the level at which a stock can no longer produce maximum biological yield (MBY); the other, the level at which a stock can no longer recover to the level where it can produce MBY. The conflicting views of the commenters arise from two related questions: Degree of Council discretion, and degree of stock protection that should be required.

Response: NOAA agrees with the two commenters who favored deleting "maintain or," and believes that this change more clearly reflects the intent of the Act since jeopardizing the capacity of a stock to recover to MBY could be considered akin to the "irreversible damage" referred to in its legislative history. MBY would thus not necessarily be a goal; rather, the goal is the prevention of a stock's reaching a point where recovery to that level is not possible. While NOAA shares the concern of the two other commenters about the potential for targeting fisheries on depleted stocks, it believes that a ban on jeopardizing the capacity to *maintain* a level at which the stock can produce MBY goes beyond the intent of the Act. NOAA believes that, within the "irreversible damage" limits, it is up to the Councils to define allowable levels of impact on depressed stocks. "Capacity" is the operative word. The "buffer in favor of conservation" concept, favored by environmentalists and others concerned with protection of depressed stocks, is not diminished, because under standard 6 it can be factored into an FMP in a variety of different ways.

4. Comment: One organization questioned the legal basis for adding the non-biological factor "or economic value" to the definition of overfishing.

Response: It was added, at the suggestion of previous commenters and as a result of the workshops, because NOAA believes it is an inseparable concept in evaluating the stock level within which a Council might wish to operate. Maximum economic value could be less than MBY, depending on the market product desired. It is the "capacity" to recover to a maximum physical or economic value that is at issue. Both encompass protection from "irreversible damage" to the stock.

5. Comment: Several commenters challenged NOAA's approach to identifying exceptions to the overfishing prohibition in 602.11(d)(1). One organization argued that the guidelines authorize an open-ended array of extra-statutory exceptions to the prohibition, which in the organization's view constitutes a rewriting of the statute. It acknowledged, however, that the Secretary has the authority to define overfishing in a way that recognizes potentially different meanings in different contexts. The objection appeared the focus on the candid acknowledgement that overfishing of minor components may be an inevitable consequence of multi-species management. The organization offered a complicated substitute definition that allows for essentially the same type of overharvest, but places the concept in what it viewed as a more legal context. Another commenter proposed that the emphasis be placed on the overall management unit, obscuring the fact that overfishing may, in fact, occur on minor components. Two commenters were opposed to allowing any exception to the overfishing prohibition.

Response: NOAA did not change the approach. NOAA believes that, as management regimes become more comprehensive, the interrelationships of fishing pressure on target and nontarget (both major and minor) species will have to be addressed more directly. Unlike the first commenter, NOAA believes that an effective way of forcing an evaluation of the risk of overfishing in mixed-species fisheries is to label it as such, despite the appearance of conflict with the statutory language. NOAA disagrees with the second point of view, which could be perceived to lack concern for individual populations within a management unit. NOAA considers the interpretation of the remaining two commenters—that, in general, the guidelines permit overfishing to occur unless a stock is threatened with extinction—to be based on an ambiguity in the order of the section. NOAA made an editorial change in (d)(1) and in the OY analysis section, (e)(5), designed to clear up any ambiguity. A change was made in the OY factors section, (e)(3)(iii), to highlight the vulnerability of incidental or unregulated species.

6. Comment: Two commenters objected strenuously to the statement in 602.11(d)(4) that an FMP must contain measures to reduce fishing mortality unless it can be shown that reduced fishing pressure would not alleviate the problem. (This section discusses changes in environment/habitat conditions producing the appearance of overfishing.)

Response: NOAA changed "most effective management response" to "the only direct control" to make it clearer that, even if fishing pressure were not the cause of the problem, the Act limits the authority of the Councils in addressing the other causes. NOAA did not mean to "lock the fishery management system into regulating unless it can be proved that the regulations are ineffective." NOAA was trying to convey that when a downward trend is obvious, allowing unregulated levels of fishing pressure to continue assumes a greater-than-normal risk of increasing the stress. NOAA also changed "unless it can be shown" to "unless the Council asserts," a change acknowledging that such judgments are based on elusive evidence, at best, but that the national interest compels examination of the issue.

Achievement of OY

7. Comment: Three respondents commented on the relationship between exceeding OY and overfishing as expressed in 602.11(f)(2). The first did not understand how standard 1 could be violated if overfishing does not occur; the second wanted it made clear that exceeding OY was, in fact, overfishing; the third noted that exceeding OY would coincide with overfishing, except in the case of underutilized species or where allocations to users take precedence over conservation objectives.

Response: No change was made. NOAA believes it is important to keep the distinction clear between the two separate parts of standard 1: the directive is to prevent overfishing, and to achieve OY. Earlier working-drafts of the guidelines had been organized to reinforce the separation of the two ideas. The proposed rule was reorganized, however, to respond to the direction of the workshop discussion and written comments, such that overfishing became an intrinsic limitation on OY—built into the OY

determination but maintaining a separate identity as a prohibition. For example, exceeding OY does not constitute overfishing when the fishery is not depressed. On the other hand, exceeding OY may constitute overfishing when the margins of tolerance are low. (Buffers to protect against overfishing because of uncertainty in estimating stock size or domestic harvest may be established in the form of reserves or a reduced OY.) Whether exceeding OY is overfishing is a separate issue from continual harvest at a level above a fixed-value OY. The latter violates the other half of the standard (which is to achieve OY), whether or not overfishing is the result.

8. Comment: One commenter proposed language that touched on this question from the OY rather than the overfishing standpoint—add "on a continuing basis" at the end of the second sentence of 602.11(f)(1).

Response: No change was made. NOAA believes that the Act requires an attempt to be made to achieve OY on an annual basis year after year, although it recognizes this won't always happen. NOAA believes that the proposed language obscures the "annual" part of the continuing obligation, and that the change would dilute the strength of (f)(2), where the distinction between exceeding OY and overfishing is described. Standard 1 may be violated from either side of the OY equation—if the level of harvest is continually above, or below, a fixed-value OY.

9. Comment: Several commenters expressed concern about different aspects of constructing multi-species management regimes, indicating that more guidance was needed.

Response: NOAA made several changes that address this problem. In 602.11(c)(1), the MSY section, this sentence was inserted: "One MSY may be specified for a related group of species in a mixed-species fishery." By making this change, NOAA intends to convey that if it is not possible or desirable to specify a separate MSY for each stock in the fishery, it is acceptable to specify one MSY for a group of related species. In 602.11(e)(3)(iii), the ecological factors in determining OY section, NOAA substituted "the vulnerability of incidental or unregulated species in a mixed-species fishery" for "the nature of a mixed-species fishery", and added "or competitive interactions". NOAA also added, at the end of 602.11(e)(4): "In the case of a mixed-species fishery, the incidental species OY may be a function of the directed catch or absorbed into an OY for related species." NOAA believes that these additions clarify and draw attention to the complex decisions that must be faced in multi-species management.

10. Comment: In 602.11(e)(3)(i), the economic factors in determining OY section, one commenter wanted to delete reference to improvement in the U.S. balance of trade as being beyond the scope of Council authority.

Response: NOAA agrees with the commenter, and deleted the reference.

11. Comment: Two commenters wanted to change "must" to "should" in 602.11(e)(4)(iv), the form of OY specification section, each for different reasons. Another wanted to add at the end of the first sentence, "it must be so converted".

Response: Upon reexamination, NOAA found that "must" had been used in this section in a way that was inconsistent with the 602.2 definition. The sentence was accordingly changed to read: "The OY specification can be converted into an annual numerical estimate to establish the TALFF and * * *" The third commenter's suggestion was felt to be unnecessary; in those cases when a TALFF is calculated, it is so converted in the FMP. The language here is meant to be descriptive.

12. Comment: Four commenters raised recurring questions concerning OY and foreign fishing, (section 602.11(g)). Section 201(d) of the Act provides that fishing by foreign nations is limited to that portion of the OY that will not be harvested by vessels of the United States (OY minus DAH). Three commenters took exception to the guideline statement that the achievement of OY under standard 1 requires that foreign fishing vessels be given reasonable opportunity to harvest this surplus (called TALFF, the total allowable level of foreign fishing). One commenter wanted further guidance on what conditions or situations would allow Councils to adjust OY so as to minimize or completely prevent any allocation of surplus beyond U.S. estimated annual harvest. One wanted it expressly stated that Councils may set OY equal to DAH, effectively preventing this allocation.

Response: No change was made. NOAA believes that achievement of OY includes giving foreign fishing vessels reasonable opportunity to harvest the "surplus" between DAH and OY. There is nothing to preclude Councils from setting OY equal to DAH now, if circumstances warranting it are documented. NOAA has written 602.11(e)(3)(i) to allow international economic considerations to influence the size of TALFF through adjustment of OY.

Section 602.12 Standard 2

13. Comment: One commenter was concerned that 602.12(c), the provision permitting collection of information about harvest within state boundaries if needed for proper implementation of the FMP, might invite excessive data collection.

Response: NOAA added the phrase: "and cannot be obtained otherwise", to avoid duplication of effort. All data collection called for within an FMP must be analyzed under the Paperwork Reduction Act.

14. Comment: One agency expressed concern about estimating human resource requirements and enforcement costs. It felt that some FMPs have not contained sufficient information to be useful, and submitted a list of minimum data required to make realistic assessments of the effort necessary to enforce regulations.

Response: NOAA agrees that the information is needed, but could not fit the specific suggestions into the guidelines framework. The analysis under standard 7 is as responsive as NOAA believes it possible to be in the national standard guidelines; enforcement and administrative costs are both addressed there.

Section 602.13 Standard 3

15. Comment: Two commenters wanted to change "encourage" to "require" in the first sentence of 602.13(b).

Response: "Encourage" was changed to "induce," because while NOAA agrees that a stronger word is appropriate, the standard does not explicitly mandate comprehensive management. It is an implied consequence of the statutory language. The guidelines go on to explain NOAA's interpretation of the term "comprehensive management".

16. Comment: One commenter expressed concern about multi-Council management, disagreeing with the guideline statement that preparation of one FMP should be the preferred course of action when the range of a stock overlaps Council areas.

Response: No change was made. NOAA believes that comprehensive management means every effort should be made to define the broadest possible management unit and to avoid the potential for conflicting management measures being issued by adjacent jurisdictions for a widely ranging stock.

17. Comment: Two commenters addressed the provision in 602.13(d)(2) that a management unit may contain, in addition to regulated species, stocks of

fish for which there is not enough information available to specify MSY and OY or to establish management measures, so that data on these species may be collected under the FMP. One commenter's objection was based on the semantic problem of allowing data collection of unregulated species within the management unit. The other commenter's concern centered on the scope of the permitted data collection on unregulated species, proposing that such efforts be limited to biological and ecological data.

Response: No change was made. The definition of "management unit" is important here: "a fishery or that portion of a fishery identified in an FMP as relevant to the FMP's management objectives." NOAA accepts inclusion within the management unit of those stocks of fish for which there is not enough information to specify MSY or OY or to establish management measures; however, the unregulated portion of the fishery for which data are being collected must have relevance to the objectives of the FMP. Since the specification of OY calls for an evaluation of social and economic data, limiting data collection efforts to biological and ecological information would be counterproductive to an eventual determination of OY.

Section 602.14 Standard 4

18. Comment: One commenter suggested replacing the third sentence in 602.14(b) with: "Conservation and management measures must equitably distribute the conservation burden across all user groups with significant impact on the stock(s)." The commenter also suggested a third example: "An FMP that permitted an ocean salmon fishery on a stock which significantly reduced or precluded inside fisheries on the same stock for conservation needs would violate standard 4."

Response: No change was made. This section deals with discrimination among residents of different States—a separate concept from equity, which is treated under section (c)(3), factors in making allocations. The commenter's concern is adequately addressed there. In addition, NOAA did not want to delete the third sentence, which contains an important point that—under certain conditions—could affect part of the problem identified in the proposed example. The two examples as given, however, illustrate the two points made in section (b).

19. Comment: Under 602.14(b), one commenter questioned whether intent or effect were the critical factor in determining whether discrimination has occurred, citing the examples as unclear on the point.

Response: The examples illustrate that, in fact, Councils have to be cognizant of both. However, the critical question in both examples is not intent or effect, but whether State residence, citizenship, or incorporation determines the result. In example 1, there appears to be both intent and effect. In example 2, the fact that spawning grounds have a physical location, the closure of which disadvantages those that live closest to it (who may or may not be citizens of another State), is not discriminatory in and of itself. If the closure differently affects citizens of different States, the discriminatory effect is incidental because it is not based on State residence. Discrimination is a distinct concept from equity, which is treated under section (c)(3), factors in making allocations.

20. Comment: One commenter questioned the use of the word "deliberate" in the definition of allocation (602.14(c)(1)), in particular reference to perpetuation of existing fishing practices as a deliberate allocation.

Response: No change was made. "Deliberate" is one of the most important operative words in the definition. If an FMP perpetuates existing fishing practices, the Council has made a deliberate and documentable choice among alternatives.

21. Comment: Two commenters proposed inserting "and management" after "conservation" in 602.14(c)(3), factors in making allocations.

Response: No change was made. This section is a paraphrase of the statutory language of standard 4, which does not include the words "and management". It is a lead-in to the fuller explanations of each of the statutory factors to be considered in making allocations.

22. Comment: One commenter believed that it is incorrect to define "conservation" in terms of either social or economic measures; the organization also felt that allocation of fishing privileges is not a conservation and management measure under the Act, and that optimizing yield is not necessarily a conservation measure.

Response: In maintaining its interpretation of that part of standard 4 which requires an allocation scheme to be "reasonably calculated to promote conservation," NOAA is cognizant of the inherent difficulty of rationalizing allocation schemes in those terms. However, NOAA believes the "wise use" sense of conservation to be sensible, within Congressional intent, and consistent with the Act's definition of "conservation and management." Wise use embodies optimizing yield, in the fullest definition of the term. NOAA softened the language in the first sentence of 602.14(c)(3)(ii) to make it clearer that the discretionary provisions of section 303(b), which describes numerous measures having distributive effects, are referred to as conservation and management measures in section 303(a).

23. Comment: One commenter proposed changing "single buyer" to "small groups of buyers" in 602.14(c)(3)(iii), avoidance of excessive shares. The commenter felt this change would conform the standards to accepted economic thought on market concentration.

Response: NOAA revised the section beginning with "under which a single buyer * * *" to read, "fostering inordinate control by buyers or sellers that would not otherwise exist." The exact wording suggested was not used because the term "small groups" is inexact. However, NOAA does recognize that one or a few entities in the market can exert sufficient influence to control the market. It was decided, therefore, to broaden the wording to include the thought that the allocation scheme should not encourate control by one *or more* buyers or sellers, thereby addressing the concepts of monopoly or oligopoly in fishery markets. The phrase "that would not otherwise exist" is a key part of this section. It recognizes that normal market structure can include monopolistic or oligopolistic conditions, particularly in local or regional areas. The phrase indicates only that the result of an allocation scheme should not be to foster greater control by buyers or sellers than that which would occur without the scheme. While reduction in the number of buyers or sellers is not necessarily inconsistent with the national standards, overt action by a Council to concentrate the industry so that market price manipulations could occur would be contrary to the standards.

Section 602.15 Standard 5

24. Comment: One commenter recommended that NOAA reconsider its whole approach to this standard: that instead of defining efficiency in terms of attaining the greatest benefits at the least cost to society, we should define it in terms of the least cost to the individual fisherman. The commenter believed that the guidelines as written prohibit free market action related to investment in fishery activities, and that limitations on the number of vessels

participating in a fishery bear no relationship to achieving optimum yield except where overcrowding exists.

Response: NOAA did not change its approach. NOAA believes that particular care should be taken when considering management of common property resources—where intensive individual market actions risk the "tragedy of the commons," a concept that comprises damage not only to the individual fisherman, but to the very resource on which he depends. Where there are no property rights, the role of government takes on the dimension of stewardship. NOAA also believes that managing at least cost to society and managing at least cost to the fisherman are not mutually exclusive. NOAA reads standards 5 and 7 together; to minimize costs of regulating also means to minimize costs to the industry of compliance. Section (d)(1) of the standard 7 guidelines is clear: "Management measures should be designed to give fishermen the greatest possible freedom of action in conducting business and pursuing recreational opportunities that are consistent with ensuring wise use of the resource and reducing conflict in the fishery." Finally, NOAA believes its approach does not imply any deterrent to free market action since it does not narrow any Council options. The Appendix expands on this discussion.

25. Comment: One commenter felt that the definition of efficiency (602.15(b)(2)) is too narrow and predetermines the objective. Two commenters proposed changes to indicate that economic efficiency is not always desirable. Two expressed resistance to the linkage between efficiency and conservation.

Response: NOAA added "or desirable" at the end of 602.15(b)(1). This makes it clearer that the level of efficiency to be attained is a judgmental decision. Efficiency should be evaluated along with the statutory policy principles expressed in the other standards. NOAA acknowledges in 602.15(b)(1) that "a goal of promoting efficient utilization of fishery resources may conflict with other legitimate social or biological objectives of fishery management", and again in (b)(2)(ii) that the "use of inefficient techniques or creation of redundant fishing capacity" are acceptable if they contribute to social or biological objectives. NOAA believes the linkage between efficiency and conservation to be valid in the wise use context and compatible with 602.14(c)(3)(ii); it does not automatically exclude resource or social reasons for justifying an inefficient fishery. The Appendix expands on this discussion.

26. Comment: One commenter proposed adding language in 602.15(b) to highlight the fact that the term "utilization" applies to both the commercial and recreational sectors of the industry. The general concern regarding application of guideline provisions to both sectors was expressed several times by this commenter and others.

Response: NOAA added a definition of "industry" in 602.2 to respond to this general concern, and to obviate the need to repeat "commercial and recreational sectors" throughout the guidelines.

27. Comment: Two commenters repeated their recommendations to delete the limited access section (602.15(c)) entirely.

Response: NOAA retained the section. NOAA agrees that limited access is only one tool among many; this point is expanded in the Appendix. However, because limited access is given special treatment in the Act, it was directly addressed in the 1977 guidelines and again in this revision.

28. Comment: Two commenters suggested inserting "and/or conservation" after "efficiency" in the first sentence of 602.15(c). One wanted to add "to distribute fishing effort over time and space, and" before "to combat".

Response: NOAA added "or conservation" as suggested, thus acknowledging explicitly that limited access may have a conservation purpose, rather than subsuming it within the concept of efficiency. It was felt that the second change might add confusion rather than clarification. At the suggestion of the second commenter, a descriptive sentence was added at the end of the section that amplifies the conservation effects: "In some cases, limited entry is a useful ingredient of a conservation scheme, because it facilitates application and enforcement of other management measures."

29. Comment: One commenter proposed to delete reference to units of effort as being confusing, and offered substitute language: "the number of participants in the fishery or to limit the amount caught by each individual participant."

Response: No change was made. NOAA believes the substitute is too limiting since units of effort may encompass people, vessels, types of gear, or other elements that act together to affect the volume of effort. Limiting the amount caught by each individual participant is not what NOAA characterizes as limited access unless the number of participants is also limited.

30. Comment: One commenter objected to the application of 602.15(e), the economic allocation paragraph, to U.S. fishermen only.

Response: While the legislative history of the Act suggests that standard 5 was primarily concerned with promoting efficiency in the U.S. fishing industry, the context and application of the final clause is somewhat obscure. NOAA has not yet been presented with a management measure (as distinguished from an OY specification) whose sole purpose was an economic allocation in favor of U.S. fishermen at the expense of foreign fishermen, or that favored one group of foreign fishermen over another—so that issue has never been squarely resolved. "U.S." was deleted to avoid foreclosing further discussion of the meaning of the clause.

Section 602.16 Standard 6

31. Comment: One commenter was concerned about expansion of the concept of variations to include social and economic occurrences in 602.16(c)(1).

Response: No change was made. This paragraph is primarily descriptive of conditions that may cause variations in "fisheries, fishery resources, and catches." It is a listing of potentially influential factual circumstances.

32. Comment: Two commenters wanted to change "should" to "must" in the second sentence of 602.16(c)(2), which sets forth the provision for a "suitable buffer in favor of conservation."

Response: No change was made. NOAA agrees that it is important that this effort be made, which is why four examples are given as to how to do it. However, such a buffer is not mandated. Two standard 1 provisions—allowing for adjustment of MSY prior to determining OY, and strengthening the OY ecological factors—particularly reinforce the standard 6 guidelines in this regard.

33. Comment: One commenter was under the impression that 602.16(2)(ii) permitted establishment of reserves without an amendment to an FMP.

Response: NOAA wishes to clarify that the section permits the establishment of reserves within an FMP for the purposes stated; however, if the FMP has been approved without a provision for reserves, the FMP must be amended to include it.

34. Comment: One commenter proposed substitution of "should" for "may" in 602.16(2)(iv), an example concerning habitat protection that illustrates how allowances for

uncertainties can be factored into an FMP.

Response: The change was not made because examples are descriptive and explanatory rather than advisory or exhortatory. NOAA did, however, change "may" to "should" in the lead-in sentence to the examples, to indicate that such actions were recommended.

35. Comment: One commenter was concerned that a flexible management regime as described in 602.16(d) makes it possible to act quickly without amending the FMP or its regulations. The commenter believed that the Councils should be required to document the action taken under a flexible plan. Another commenter was similarly concerned from the standpoint of achieving a balance between the Councils' primary responsibility for management and the Secretary's responsibility for oversight. The organization stated, "While we want flexible management plans, we do not want any FMP so flexible that the Secretary manages by regulatory fiat or a Council—or its designee—does so by default on the Secretary's part."

Response: NOAA added a clarifying paragraph (602.16(d)(1)) that addresses both problems: the concern about the public's opportunity to challenge the various contingency options and to review the criteria under which they would be used, and the concern about the division of functions between the Council and the Secretary.

Section 602.17 Standard 7

36. Comment: One commenter raised the question of who decides whether a plan is necessary—the Council or the Secretary—under 602.17(b). The question came up in the context of an objection to the provision precluding the need to collect data as an adequate reason for an FMP.

Response: No change was made. NOAA believes that the proposed guidelines allow for less costly ways to gather data than to prepare an FMP for that purpose alone. (See 602.12(c), 602.13(d)(2), and 602.17(b)(2)(vi).) Work plans for such FMPs have been disapproved. Use of the guidelines as supplementary guidance on "other applicable law" was discussed at the workshops; the standard 7 guidelines come as close as is appropriate to providing a bridge to the policies of the National Environmental Policy Act, the Paperwork Reduction Act, Executive Order 12291, and other legislative and executive actions in regulatory reform. The issue of who decides whether management is necessary was also broadly discussed at the workshops. It was agreed that the issue of whether a fishery needs management through regulations implementing an FMP is initially a Council decision; section 602.10(2) makes this clear. The new 602.16(d)(1) also describes the Councils' policy-setting role. NOAA has presented under standard 7 some of the reasons for management through regulation that are consistent with the two requirements of the standard—reducing costs and avoiding duplication. The list of criteria is not inclusive.

37. Comment: One commenter wanted section (b) deleted entirely, as inappropriate. The commenter felt that the criteria are useless because, by the time the guidelines are used, the decision on development of a plan has already been made; if used at all they should be in guidelines for FMP development or the scoping process.

Response: NOAA retained the section. The commenter has pinpointed the very reason for the section. The NOAA Office of General Counsel has interpreted standard 7 to apply to the whole FMP as well as to individual management measures. Initial judgments regarding the objectives of the FMP made with the assistance of the standard 7 criteria will have a better chance of reducing costs and avoiding duplication.

38. Comment: Two commenters proposed additions to the criteria; one commented that, while the individual criteria are unobjectionable, collectively they are so extensive as to make it necessary to prepare FMPs to make the determination.

Response: No change was made. Both suggestions were subsumed within the existing criteria. Individual criteria need not be aggregated to make judgments.

Classification

The amendments to the national standard guidelines are issued in conformity with the Executive Order 12291. The guidelines impose no information collection requests nor paperwork burden on the public under the Paperwork Reduction Act.

Because they produce no direct regulatory impact on the general public, industry, or small business, the Department of Commerce Office of General Counsel certified on May 12, 1982, that the guidelines will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act; thus, no Regulatory Flexibility Analysis is required. The guidelines indicate how NOAA interprets the fishery management principles in the national standards of the Act. They describe a range of acceptable management measures that could be adopted by the Councils, approved by the Secretary, and subsequently translated into regulations. The impact on the public occurs through specific management decisions contained within specific FMPs; until a given FMP is developed, there is no basis for evaluating the consequences of these decisions. Economic impact on small entities is addressed at a later date through RFAs for individual FMPs.

The term "significance" under the National Environmental Policy Act relates to impact on the human environment. Section 1508.14 of the Council on Environmental Quality regulations interprets "human environment" to include "the natural and physical environment and the relationship of people with that environment. This means that economic and social effects are not intended by themselves to require preparation of an environmental impact statement." Amendments to the national standard guidelines do not in themselves affect the human environment. The effect of the guideline amendments on the contents of FMPs is addressed through the requirement for environmental assessments and environmental impact statements. The consequences of specific management measures are addressed in those documents. For these reasons, NOAA determined on July 7, 1980, that an environmental assessment or an EIS is not required for revision of the national standard guidelines.

Explanation of Restructuring

NOAA is restructuring Part 602 by designating subparts to differentiate the subject matter of the guidelines and by renumbering the sections to make them easier to follow. The first phase of this restructuring is a part of this amendment.

List of Subjects in 50 CFR Part 602

Administrative practice and procedure, Fish, Fisheries, Fishing.

Dated: February 14, 1983.

William G. Gordon,

Assistant Administrator for Fisheries, National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR Part 602 is amended as follows:

1. The authority citation for Part 602 reads as follows:

Authority: 16 U.S.C. 1801 *et seq.*

2. The Part heading for Part 602 is revised;

Sections 602.1–602.6 are designated as Subpart A;

Sections 602.1 and 602.2 are revised;

Subpart B (Sections 602.10–602.17) is added, as set forth below:

PART 602—GUIDELINES FOR FISHERY MANAGEMENT PLANS

Subpart A—General

Sec.
602.1 Purpose and Scope.
602.2 Style Guide.
* * * * *

Subpart B—National Standards

602.10 General.
602.11 National Standard 1—Optimum Yield.
602.12 National Standard 2—Scientific Information.
602.13 National Standard 3—Management Units.
602.14 National Standard 4—Allocations.
602.15 National Standard 5—Efficiency.
602.16 National Standard 6—Variations and Contingencies.
602.17 National Standard 7—Costs and Benefits.
Appendix A to Subpart B—Explanatory Material.

Subpart A—General

§ 602.1 Purpose and scope.

The Act requires that any fishery management plan or amendment prepared by either the Regional Fishery Management Councils or the Secretary of Commerce, and any regulations issued to implement a fishery management plan or amendment, shall be consistent with seven national standards, the other provisions of the Act, and any other applicable law. Part 602 implements those portions of the Act that pertain to the development, content, submission, amendment, review, and implementation of fishery management plans, and establishes guidelines to assist in achieving the required consistency.

§ 602.2 Style guide.

(a) *Definitions.* The terms used in these guidelines have the meanings that are prescribed in section 3 of the Act. In addition, the following definitions apply:

The Act—the Magnuson Fishery Conservation and Management Act, as amended (U.S.C. 1801 *et seq.*), also known as the FCMA, or the Magnuson Act.

Council—Regional Fishery Management Council, as established by the Act.

Secretary—Secretary of Commerce.

(b) *Abbreviations.*

ABC—acceptable biological catch.
DAH—estimated domestic annual harvest.
DAP—estimated domestic annual processing.
EY—equilibrium yield.
FCZ—fishery conservation zone.
FMP—fishery management plan.
JVP—joint venture processing.
MSY—maximum sustainable yield.
OY—optimum yield.
PMP—preliminary fishery management plan.
TAC—total allowable catch.
TALFF—total allowable level of foreign fishing.

(c) *Word usage.*—(1) *Must* is used to denote an obligation to act; it is used primarily when referring to requirements of the Act, the logical extension thereof, or of other applicable law.

(2) *Should* is used to indicate that an action or consideration is strongly recommended to fulfill the Secretary's interpretation of the Act, and is a factor reviewers will look for in evaluating an FMP.

(3) *May* is used in a permissive sense.

(4) *May not* is proscriptive; it has the same force as *must not.*

(5) *Will* is used descriptively.

(6) *Shall* is not used at all, except when quoting the statutory language of each standard. "Must" is used instead of "shall" to avoid confusion with the future tense.

(7) *Could* is used when giving examples, in a hypothetical, permissive sense.

(8) *Can* is used to mean "is able to," as distinguished from "may."

(9) *Examples* are given by way of illustration and further explanation. They are not inclusive lists; they do not limit options.

(10) *Analysis,* as a paragraph heading, signals more detailed guidance as to the type of discussion and examination an FMP should contain to demonstrate compliance with the standard in question.

(11) *Determine* is used when referring to OY.

(12) *Adjust* is used when establishing a deviation from MSY for biological reasons, such as in establishing ABC, TAC, or EY.

(13) *Modify* is used when the deviation from MSY is for the purpose of determining OY, in accord with relevant economic, social, or ecological factors.

(14) *Industry* includes recreational and commercial fishing and the harvesting, processing, and marketing sectors.

Subpart B—National Standards

§ 602.10 General.

(a) *Purpose.* (1) This subpart establishes guidelines, based on the national standards, to assist in the development and review of FMPs, amendments, and regulations prepared by the Councils and the Secretary.

(2) In developing FMPs, the Councils have the initial authority to ascertain factual circumstances, to establish management objectives, and to propose management measures that will achieve the objectives. The Secretary will determine whether the proposed management objectives and measures are consistent with the national standards, other provisions of the Act, and other applicable law. The Secretary has an obligation under section 301(b) of the Act to inform the Councils of the Secretary's interpretation of the national standards so that they will have an understanding of the basis on which FMPs will be reviewed.

(3) The national standards are statutory principles that must be followed in any FMP. The guidelines summarize Secretarial interpretations that have been and will be, applied under these principles. The guidelines are intended as aids to decisionmaking; FMPs formulated according to the guidelines will have a better chance for expeditious Secretarial review, approval, and implementation. FMPs that are in substantial compliance with the guidelines, the Act, and other applicable law must be approved.

(b) *Fishery management objectives.* (1) Each FMP, whether prepared by a Council or by the Secretary, should identify what the FMP is designed to accomplish, i.e., the management objectives to be attained in regulating the fishery under consideration. In establishing objectives, Councils balance biological constraints with human needs, reconcile present and future costs and benefits, and integrate the diversity of public and private interests. If objectives are in conflict, priorities should be established among them.

(2) How objectives are defined is important to the management process. Objectives should address the problems of a particular fishery. The objectives should be clearly stated, practicably attainable, framed in terms of definable events and measurable benefits, and based upon a comprehensive rather than a fragmentary approach to the problems addressed. An FMP should make a clear distinction between objectives and the management measures chosen to achieve them. The objectives of each FMP provide the context within which the Secretary will judge the consistency of an FMP's conservation and management measures with the national standards.

§ 602.11 National Standard 1—Optimum Yield.

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

(b) *General.* The determination of OY is a decisional mechanism for resolving the Act's multiple purposes and policies, for implementing an FMP's objectives, and for balancing the various interests that comprise the national welfare. OY is based on MSY, or on MSY as it may be adjusted under paragraph (c)(4) of this section. The most important limitation on the specification of OY is that the choice of OY—and the conservation and management measures proposed to achieve it—must prevent overfishing.

(c) *MSY.*—(1) MSY, a theoretical concept, is the largest average annual catch or yield that can be taken over a period of time from each stock under prevailing ecological and environmental conditions. It may be presented as a range of values. One MSY may be specified for a related group of species in a mixed-species fishery. Since MSY is a long-term average, it need not be specified annually.

(2) In an unexploited stock of fish, the natural mortality rate is balanced by growth and recruitment rates on average. Once fishing pressure is applied, the balance of mortality, growth, and recruitment is altered, and the average value of these rates and the average population size changes. As the population size changes, a new balance of rates is achieved. The interrelationship between these rates and population size provides the basis for specifying the MSY of a stock. Techniques for estimating MSY depend on the scientific information available. The MSY may be derived from average past catches, stock production models, yield per recruit or dynamic pool models, spawner/recruit relationships, total biomass estimates and estimates of natural mortality, biomass estimates from ecosystem models, or other valid methods.

(3) The determination of OY requires a specification of MSY. However, where sufficient scientific data as to the biological characteristics of the stock do not exist, or the period of exploitation or investigation has not been long enough for adequate understanding of stock dynamics, or where frequent large-scale fluctuations in stock size make this concept of limited value, the OY should be based not on a fabricated MSY but on the best scientific information available.

(4) MSY may be only the starting point in providing a realistic biological description of allowable fishery removals. MSY may need to be adjusted because of environmental factors, stock peculiarities, or other biological variables, prior to the determination of OY. Examples are ABC, TAC, and EY. Such adjustments are valid, provided that they are explained and justified.

(d) *Overfishing.* (1) Overfishing is a level of fishing mortality that jeopardizes the capacity of a stock(s) to recover to a level at which it can produce maximum biological yield or economic value on a long-term basis under prevailing biological and environmental conditions. An FMP must prevent overfishing, except in certain limited situations. For example, harvesting the major component of a mixed fishery at its optimum level may result in the overharvest of a minor (smaller or less valuable) stock component. In another case, solving a particular problem may necessitate pruning larger fish from the population. A Council may decide to permit this type of overharvest if the analysis (paragraph (e)(5) of this section) identifies the benefits from such overfishing, and if the Council's action will not cause any stock component to require protection under the Endangered Species Act.

(2) Significant downward trends in spawning stock sizes and in average annual recruitment over a period of several years may signal that overfishing is occurring. These downward trends usually are preceded or accompanied by increased variability in annual recruitment and by major shifts to younger fish and fewer year classes in the spawning stock. If fishing continues at a rate that perpetuates the downward trends, the spawning stock eventually may be incapable of significant reproduction and may be irreversibly damaged.

(3) Declines in stock size may occur independent of fishing pressure, caused by a combination of factors such as natural fluctuations in the stock itself and in the environment, and man-made changes in essential habitat. Significant adverse alterations in the environment increase the possibility that fishing effort will contribute to a stock collapse. Decisions about the allowable level of fishing mortality will vary according to the conditions of the fishery and the amount of risk associated with different harvest rates.

(4) Since changes in environment/habitat conditions can produce the appearance of overfishing (as can new fishing pressure on an underutilized stock), care should be taken to identify the cause of the downward trends. Whether the trends in spawning stock size and in average recuitment are caused by environmental changes or by fishing effort, the only direct control under the Act is to propose management measures to reduce fishing mortality. Unless the Council asserts that reduced fishing pressure would not alleviate the problem, the FMP must include measures to reduce fishing mortality. If environmental changes are the primary cause of the downward trends, Councils may recommend restoration of habitat and other ameliorative programs.

(5) Fishing can produce a variety of effects on local and stockwide abundance, availability, size, and composition. Some of these effects have been called "overfishing"—with or without qualifiers such as growth, localized, and pulse. These effects are not "overfishing" under standard 1; a Council may recommend conservation and management measures to prevent or permit these effects, depending on the objectives of a particular FMP.

(e) *Specification of OY.*—(1) *OY and management objectives.* Ideally, the process of determining OY and the resulting specification integrate the various objectives of the FMP. Relative weighting of the elements of the OY determination will be influenced both by regional objectives and by national considerations. Rarely will a fishery be managed to meet a single objective. Objectives may conflict. Consequently, priority decisions should be made in developing objectives, the timing of their achievement, and the management measures to achieve them. (See section 602.10.)

(2) *Values in determining OY.* In determining the greatest benefit to the Nation, two values that should be weighed are food production and recreational opportunities (section 3(18)(A) of the Act). They should receive serious attention as measures of benefit when considering the economic, ecological, or social factors used in modifying MSY to obtain OY.

(i) "Food production" encompasses the goals of providing seafood to consumers at reasonable prices, maintaining an economically viable fishery, and utilizing the capacity of U.S. fishery resources to meet nutritional needs.

(ii) "Recreational opportunities" includes recognition of the importance of the quality of the recreational fishing experience, and of the contribution of recreational fishing to the national, regional, and local economies and food supplies.

(3) *Factors relevant to OY.* The Act's definition of OY identifies three categories of factors to be used in modifying MSY to arrive at OY: economic, social, and ecological (section 3(18)(B)). Examples are given below. Not every factor will be relevant in every fishery; for instance, there may be no Indian treaty rights. For some fisheries,

insufficient information may be available with respect to some factors to provide a basis for corresponding modifications to MSY.

(i) *Economic factors.* Examples are promotion of domestic fishing, development of unutilized or underutilized fisheries, satisfaction of consumer and recreational needs, and encouragement of domestic and export markets for U.S. harvested fish. Some other factors that may be considered are the value of industrial fisheries the level of capitalization, operating costs of vessels, alternate employment opportunities, and economies of coastal areas.

(ii) *Social factors.* Examples are enjoyment gained from recreational fishing, avoidance of gear conflicts and resulting disputes, preservation of a way of life for fishermen and their families, and dependence of local communities on a fishery. Among other factors that may be considered are the cultural place of subsistence fishing, obligations under Indian treaties, and world-wide nutritional needs.

(iii) *Ecological factors.* Examples are the vulnerability of incidental or unregulated species in a mixed-species fishery, predator-prey or competitive interactions, and dependence of marine mammals and birds or endangered species on a stock of fish. Equally important are environmental conditions that stress marine organisms, such as natural and man-made changes in wetlands or nursery grounds, and effects of pollutants on habitat and stocks.

(4) *Form of OY specification.*—(i) The "amount of fish" that constitutes the OY need not be expressed in terms of numbers or weight of fish. The economic, social, or ecological modifications to MSY may be expressed by describing fish having common characteristics, the harvest of which provides the greatest overall benefit to the Nation. For instance, OY may be expressed as a formula that converts periodic stock assessments into quotas or guideline harvest levels for recreational, commercial, and other fishing. OY may be defined in terms of an annual harvest of fish or shellfish having a minimum weight, length, or other measurement. OY may also be expressed as an amount of fish taken only in certain areas, or in certain seasons, or with particular gear, or by a specified amount of fishing effort. In the case of a mixed-species fishery, the incidental-species OY may be a function of the directed catch, or absorbed into an OY for related species.

(ii) If a numerical OY is chosen, a range or average may be specified.

(iii) In a fishery where there is a significant discard component, the OY may either include or exclude discards.

(iv) The OY specification can be converted into an annual numerical estimate to establish the TALFF and to analyze impacts of the management regime. There should be a mechanism in a multiyear plan for periodic reassessment of the OY specification, so that it is responsive to changing circumstances in the fishery.

(5) *Analysis.* An FMP must contain an analysis of how its OY specification was determined (section 303(a)(3) of the Act). It should relate the explanation of overfishing in paragraph (d) of this section to conditions in the particular fishery, and explain how its choice of OY and conservation and management measures will prevent overfishing in that fishery. If overfishing is permitted under paragraph (d)(1) of this section, the analysis must contain a justification in terms of overall benefits and an assessment of the risk of the species reaching a "threatened" or "endangered" status. If the stock has been diminished below a desired level, the analysis should include a program for rebuilding the stock. A Council must identify those economic, social, and ecological factors relevant to management of a particular fishery, then evaluate and weigh them to arrive at the modification (if any) of MSY. The choice of a particular OY must be carefully defined and documented to show that the OY selected will produce the greatest benefit to the Nation.

(f) *OY as a target.*—(1) The specification of OY in an FMP is not automatically a quota or ceiling, although quotas may be derived from the OY where appropriate. OY is a target or goal; an FMP must contain conservation and management measures, and provisions for information collection, that are designed to achieve it. These measures should allow for practical and effective implementation and enforcement of the management regime, so that the harvest is allowed to reach but not to exceed OY by a substantial amount. The Secretary then has the obligation to implement and enforce the FMP so that OY is achieved. If management measures prove unenforceable—or too restrictive or not rigorous enough to realize OY—they should be modified; an alternative is to reexamine the adequacy of the OY specification.

(2) Exceeding OY does not necessarily constitute overfishing, although they might coincide. Even if no overfishing resulted, continual harvest at a level above a fixed-value OY would violate national standard 1 because OY was exceeded (not achieved) on a continuing basis.

(g) *OY and foreign fishing.* Section 201(d) of the Act provides that fishing by foreign nations is limited to that portion of the OY that will not be harvested by vessels of the United States. The achievement of OY under national standard 1 requires that foreign fishing vessels be given reasonable opportunity to harvest such "surplus." The exception is where an annual fishing level is certified under section 201(d)(2)(B). The annual fishing level amount is allocated to foreign fishing, as is the remainder of the "surplus" (OY minus DAH); if the determinations under section 201(d)(4) are made, however, allocation of all or part of that remainder may be deferred until the next harvesting season.

(1) *DAH.* Councils must consider the capacity of, and the extent to which, U.S. vessels will harvest the OY on an annual basis. Estimating the amount that U.S. fishing vessels will actually harvest is required to determine the surplus.

(2) *Reserves.* Part of the OY may be held as a reserve to allow for uncertainties in estimates of stock size and of DAH. If an OY reserve is established, an adequate mechanism should be included in the FMP to permit timely release of the reserve to foreign fishermen, if necessary, so that full utilization of the OY may be achieved. An FMP may also provide for a direct transfer of a portion of DAH to TALFF.

(3) *DAP.* (i) Each FMP must identify the capacity of U.S. processors. It must also identify the amount of domestic annual processed fish (DAP), which is the sum of two estimates:

(A) The amount of U.S. harvest that domestic processors will process. This estimate may be based on historical performance and on surveys of the expressed intention of manufacturers to process, supported by evidence of contracts, plant expansion, or other relevant information; and

(B) The amount of fish that will be harvested but not processed (e.g., marketed as fresh whole fish, used for private consumption, or used for bait).

(ii) When DAH exceeds DAP, the surplus is available for JVP. JVP is a part of DAH.

§ 602.12 National Standard 2—Scientific Information.

(a) *Standard 2.* Conservation and management measures shall be based upon the best scientific information available.

(b) *FMP development.* The fact that scientific information concerning a fishery is incomplete does not prevent the preparation and implementation of

an FMP (see related §§ 602.13(d)(2) and 602.17(b)).

(1) Scientific information includes, but is not limited to, information of a biological, ecological, economic, or social nature. Successful fishery management depends, in part, on the timely availability, quality, and quantity of scientific information, as well as on the thorough analysis of this information, and the extent to which the information is applied. If there are conflicting facts or opinions relevant to a particular point, a Council may choose among them, but should justify the choice.

(2) FMPs must take into account the best scientific information available at the time of preparation. Between the initial drafting of an FMP and its submission for final review, new information often becomes available. This new information should be incorporated into the final FMP where practicable; but it is unnecessary to start the FMP process over again unless the information indicates that drastic changes have occurred in the fishery that might require revision of the management objectives or measures.

(c) *FMP implementation.*—(1) An FMP must specify whatever information fishermen and processors will be required or requested to submit to the Secretary. Information about harvest within State boundaries, as well as in the FCZ, may be collected if it is needed for proper implementation of the FMP and cannot be obtained otherwise. The FMP should explain the practical utility of the information specified in monitoring the fishery, in facilitating inseason management decisions, and in judging the performance of the management regime; it should also consider the effort, cost, or social impact of obtaining it.

(2) An FMP should identify scientific information needed from other sources to improve understanding and management of the resource and the fishery.

(3) The information submitted by various data suppliers about the stock(s) throughout its range or about the fishery should be comparable and compatible, to the maximum extent possible.

(d) *FMP amendment.* FMPs should be amended on a timely basis, as new information indicates the necessity for change in objectives or management measures.

§ 602.13 National Standard 3—Management Units

(a) *Standard 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.

(b) *General.* The purpose of this standard is to induce a comprehensive approach to fishery management. The geographic scope of the fishery, for planning purposes, should cover the entire range of the stock(s) of fish, and not be overly constrained by political boundaries. Wherever practicable, an FMP should seek to manage interrelated stocks of fish.

(c) *Unity of management.* Cooperation and understanding among entities concerned with the fishery (e.g., Councils, States, Federal government, international commissions, foreign nations) are vital to effective management. Where management of a fishery involves multiple jurisdictions, coordination among the several entities should be sought in the development of an FMP. Where a range overlaps Council areas, one FMP to cover the entire range is preferred. The Secretary designates which Council or Councils will prepare the FMP, under section 304(f) of the Act.

(d) *Management unit.* The term "management unit" means a fishery or that portion of a fishery identified in an FMP as relevant to the FMP's management objectives.

(1) *Basis.* The choice of a management unit depends on the focus of the FMP's objectives, and may be organized around biological, geographic, economic, technical, social, or ecological perspectives. For example:

(i) *Biological*—could be based on a stock(s) throughout its range.

(ii) *Geographic*—could be an area.

(iii) *Economic*—could be based on a fishery supplying specific product forms.

(iv) *Technical*—could be based on a fishery utilizing a specific gear type or similar fishing practices.

(v) *Social*—could be based on fishermen as the unifying element, such as when the fishermen pursue different species in a regular pattern throughout the year.

(vi) *Ecological*—could be based on species that are associated in the ecosystem or are dependent on a particular habitat.

(2) *Conservation and management measures.* FMPs should include conservation and management measures for that part of the management unit within U.S. waters, although the Secretary can ordinarily implement them only within the FCZ. The measures need not be identical for each geographic area within the management unit, if the FMP justifies the differences. A management unit may contain, in addition to regulated species, stocks of fish for which there is not enough information available to specify MSY and OY or to establish management measures, so that data on these species may be collected under the FMP.

(e) *Analysis.* To document that an FMP is as comprehensive as practicable, it should include discussions of the following:

(1) The range and distribution of the stocks, as well as the patterns of fishing effort and harvest.

(2) Alternative management units and reasons for selecting a particular one. A less-than-comprehensive management unit may be justified if, for example, complementary management exists or is planned for a separate geographic area or for a distinct use of the stocks, or if the unmanaged portion of the resource is immaterial to proper management.

(3) Management activities and habitat programs of adjacent States and their effects on the FMP's objectives and management measures. Where State action is necessary to implement measures within State waters to achieve FMP objectives, the FMP should identify what State action is necessary, discuss the consequences of State inaction or contrary action, and make appropriate recommendations. The FMP should also discuss the impact that Federal regulations will have on State management activities.

(4) Management activities of other countries having an impact on the fishery, and how the FMP's management measures are designed to take into account these impacts. International boundaries may be dealt with in several ways. For example:

(i) By limiting the management unit's scope to that portion of the stock found in U.S. waters;

(ii) By estimating MSY for the entire stock and then basing the determination of OY for the U.S. fishery on the portion of the stock within U.S. waters; or

(iii) By referring to treaties or cooperative agreements.

§ 602.14 National Standard 4—Allocations

(a) *Standard 4.* Conservation and management measures shall not discriminate between residents of different States. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be: (A) Fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

(b) *Discrimination among residents of different States.* An FMP may not differentiate among U.S. citizens, nationals, resident aliens, or

corporations on the basis of their State of residence. An FMP may not incorporate or rely on a State statute or regulation that discriminates against residents of another State. Conservation and management measures that have different effects on persons in various geographic locations are permissible, if they satisfy the other guidelines under standard 4. Examples of these precepts are:

(1) An FMP that restricted fishing in the FCZ to those holding a permit from State X would violate standard 4 if State X issued permits only to its own citizens.

(2) An FMP that closed a spawning ground might disadvantage fishermen living in the State closest to it, because they would have to travel farther to an open area, but the closure could be justified under standard 4 as a conservation measure with no discriminatory intent.

(c) *Allocation of fishing privileges.* An FMP may contain management measures that allocate fishing privileges if such measures are necessary or helpful in furthering legitimate objectives or in achieving the OY, and if the measures conform with paragraphs (c)(3) (i) through (iii) of this section.

(1) *Definition.* An "allocation" or "assignment" of fishing privileges is a direct and deliberate distribution of the opportunity to participate in a fishery among identifiable, discrete user groups or individuals. Any management measure (or lack of management) has incidental allocative effects, but only those measures that result in direct distributions of fishing privileges will be judged against the allocation requirements of standard 4. Adoption of an FMP that merely perpetuates existing fishing practices may result in an allocation, if those practices directly distribute the opportunity to participate in the fishery. Allocations of fishing privileges include, for example, per-vessel catch limits, quotas by vessel class and gear type, different quotas or fishing seasons for recreational and commercial fishermen, assignment of ocean areas to different gear users, and limitation of permits to a certain number of vessels or fishermen.

(2) *Analysis of allocations.* Each FMP should contain a description and analysis of the allocations existing in the fishery and of those made in the FMP. The effects of eliminating an existing allocation system should be examined. Allocation schemes considered but rejected by the Council should be included in the discussion. The analysis should relate the recommended allocations to the FMP's objectives and OY specification, and discuss the factors listed in paragraph (c)(3) of this section.

(3) *Factors in making allocations.* An allocation of fishing privileges must be fair and equitable, must be reasonably calculated to promote conservation, and must avoid excessive shares. These tests are explained in paragraphs (c)(3) (i) through (iii) of this section:

(i) *Fairness and equity.* (A) An allocation of fishing privileges should be rationally connected with the achievement of OY or with the furtherance of a legitimate FMP objective. Inherent in an allocation is the advantaging of one group to the detriment of another. The motive for making a particular allocation should be justified in terms of the objectives of the FMP; otherwise, the disadvantaged user groups or individuals would suffer without cause. For instance, an FMP objective to preserve the economic status quo cannot be achieved by excluding a group of long-time participants in the fishery. On the other hand, there is a rational connection between an objective of harvesting shrimp at their maximum size and closing a nursery area to trawling.

(B) An allocation of fishing privileges may impose a hardship on one group if it is outweighed by the total benefits received by another group or groups. An allocation need not preserve the status quo in the fishery to qualify as "fair and equitable," if a restructuring of fishing privileges would maximize overall benefits. The Council should make an initial estimate of the relative benefits and hardships imposed by the allocation, and compare its consequences with those of alternative allocation schemes, including the status quo. Where relevant, judicial guidance and government policy concerning the rights of treaty Indians and aboriginal Americans must be considered in determining whether an allocation is fair and equitable.

(ii) *Promotion of conservation.* Numerous methods of allocating fishing privileges are considered "conservation and management measures" under section 303 of the Act. An allocation scheme may promote conservation by encouraging a rational, more easily managed use of the resource. Or it may promote conservation (in the sense of wise use) by optimizing the yield, in terms of size, value, market mix, price, or economic or social benefit of the product.

(iii) *Avoidance of excessive shares.* An allocation scheme must be designed to deter any person or other entity from acquiring an excessive share of fishing privileges, and to avoid creating conditions fostering inordinate control, by buyers or sellers, that would not otherwise exist.

(iv) *Other factors.* In designing an allocation scheme, a Council should consider other factors relevant to the FMP's objectives. Examples are economic and social consequences of the scheme, food production, consumer interest, dependence on the fishery by present participants and coastal communities, efficiency of various types of gear used in the fishery, transferability of effort to and impact on other fisheries, opportunity for new participants to enter the fishery, and enhancement of opportunities for recreational fishing.

§ 602.15 National Standard 5—Efficiency.

(a) *Standard 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.

(b) *Efficiency in the utilization of resources.*—(1) *General.* The term "utilization" encompasses harvesting, processing, and marketing, since management decisions affect all three sectors of the industry. The goal of promoting efficient utilization of fishery resources may conflict with other legitimate social or biological objectives of fishery management. In encouraging efficient utilization of fishery resources, this standard highlights one way that a fishery can contribute to the Nation's benefit with the least cost to society: given a set of objectives for the fishery, an FMP should contain management measures that result in as efficient a fishery as is practicable or desirable.

(2) *Efficiency.* In theory, an efficient fishery would harvest the OY with the minimum use of economic inputs such as labor, capital, interest, and fuel. Efficiency in terms of aggregate costs then becomes a conservation objective, where "conservation" constitutes wise use of all resources involved in the fishery, not just fish stocks.

(i) In an FMP, management measures may be proposed that allocate fish among different groups of individuals or establish a system of property rights. Alternative measures examined in searching for an efficient outcome will result in different distributions of gains and burdens among identifiable user groups. An FMP should demonstrate that management measures aimed at efficiency do not simply redistribute gains and burdens without an increase in efficiency.

(ii) Management regimes that allow a fishery to operate at the lowest possible cost (e.g., fishing effort, administration,

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and enforcement) for a particular level of catch and initial stock size are considered efficient. Restrictive measures that unnecessarily raise any of those costs move the regime toward inefficiency. Unless the use of inefficient techniques or the creation of redundant fishing capacity contributes to the attainment of other social or biological objectives, an FMP may not contain management measures that impede the use of cost-effective techniques of harvesting, processing, or marketing, and should avoid creating strong incentives for excessive investment in private sector fishing capital and labor.

(c) *Limited access.* A "system for limiting access," which is an optional measure under section 303(b) of the Act, is a type of allocation of fishing privileges that may be used to promote economic efficiency or conservation. For example, limited access may be used to combat overfishing, overcrowding, or overcapitalization in a fishery to achieve OY. In an unutilized or underutilized fishery, it may be used to reduce the chance that these conditions will adversely affect the fishery in the future, or to provide adequate economic return to pioneers in a new fishery. In some cases, limited entry is a useful ingredient of a conservation scheme, because it facilitates application and enforcement of other management measures.

(1) *Definition.* Limited access (or limited entry) is a management technique that attempts to limit units of effort in a fishery, usually for the purpose of reducing economic waste, improving net economic return to the fishermen, or capturing economic rent for the benefit of the taxpayer or the consumer. Common forms of limited access are licensing of vessels, gear, or fishermen to reduce the number of units of effort, and dividing the total allowable catch into fishermen's quotas (a stock-certificate system). Two forms (i.e., Federal fees for licenses or permits in excess of administrative costs, and taxation) are not permitted under the Act.

(2) *Factors to consider.* The Act ties the use of limited access to the achievement of optimum yield. An FMP that proposes a limited access system must consider the factors listed in section 303(b)(6) of the Act and in section 602.14(c)(3) of these guidelines. In addition, it should consider the criteria for qualifying for a permit, the nature of the interest created, whether to make the permit transferable, and the Act's limitation on returning economic rent to the public under section 304(d)(1). The FMP should also discuss the costs of achieving an appropriate distribution of fishing privileges.

(d) *Analysis.* An FMP should discuss the extent to which overcapitalization, congestion, economic waste, and inefficient techniques in the fishery reduce the net benefits derived from the management unit and prevent the attainment and appropriate allocation of OY. It should also explain in terms of the FMP's objectives any restriction placed on the use of efficient techniques of harvesting, processing, or marketing. If during FMP development the Council considered imposing a limited-entry system, the FMP should analyze the Council's decision to recommend or reject limited access as a technique to achieve efficient utilization of the resources of the fishing industry.

(e) *Economic allocation.* This standard prohibits only those measures that distribute fishery resources among fishermen on the basis of economic factors alone, and that have economic allocation as their only purpose. Where conservation and management measures are recommended that would change the economic structure of the industry or the economic conditions under which the industry operates, the need for such measures must be justified in light of the biological, ecological, and social objectives of the FMP as well as the economic objectives.

§ 602.16 National Standard 6—Variations and Contingencies.

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

(b) *Conservation and management.* Each fishery exhibits unique uncertainties. The phrase "conservation and management" implies the wise use of fishery resources through a management regime that includes some protection against these uncertainties. The particular regime chosen must be flexible enough to allow timely responses to resource, industry, and other national and regional needs. Continual data acquisition and analysis will help the development of management measures to compensate for variations and to reduce the need for substantial buffers. Flexibility in the management regime and the regulatory process will aid in responding to contingencies.

(c) *Variations.* (1) In fishery management terms, variations arise from biological, social, and economic occurrences, as well as from fishing practices. Biological uncertainties and lack of knowledge can hamper attempts to estimate stock size and strength, stock location in time and space, environmental/habitat changes, and ecological interactions. Economic uncertainty may involve changes in foreign or domestic market conditions, changes in operating costs, drifts toward overcapitalization, and economic perturbations caused by changed fishing patterns. Changes in fishing practices, such as the introduction of new gear, rapid increases or decreases in harvest effort, new fishing strategies, and the effects of new management techniques, may also create uncertainties. Social changes could involve increases or decreases in recreational fishing, or the movement of people into or out of fishing activities due to such factors as age or educational opportunities.

(2) Every effort should be made to develop FMPs that discuss and take into account these vicissitudes. To the extent practicable, FMPs should provide a suitable buffer in favor of conservation. Allowances for uncertainties should be factored into the various elements of an FMP. Examples are:

(i) Reduce OY. Lack of scientific knowledge about the condition of a stock(s) could be a reason to reduce OY.

(ii) Establish a reserve. Creation of a reserve may compensate for uncertainties in estimating domestic harvest, stock conditions, or environmental factors.

(iii) Adjust management techniques. In the absence of adequate data to predict the effects of a new regime, and to avoid creating unwanted variations, a Council could guard against producing drastic changes in fishing patterns, allocations, or practices.

(iv) Highlight habitat conditions. FMPs may address the impact of pollution and the effects of wetland and estuarine degradation on the stocks of fish; identify causes of pollution and habitat degradation and the authorities having jurisdiction to regulate or influence such activities; propose recommendations that the Secretary will convey to those authorities to alleviate such problems; and state the views of the Council on unresolved or anticipated issues.

(d) *Contingencies.* Unpredictable events—such as unexpected resource surges or failures, fishing effort greater than anticipated, disruptive gear conflicts, climatic conditions, or environmental catastrophes—are best handled by establishing a flexible management regime that contains a range of management options through which it is possible to act quickly without amending the FMP or even its regulations.

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(1) The FMP should describe the management options and their consequences in the necessary detail to guide the Secretary in responding to changed circumstances, so that the Council preserves its role as policy-setter for the fishery. The description enables the public to understand what may happen under the flexible regime, and to comment on the options.

(2) FMPs should include criteria for the selection of management measures, directions for their application, and mechanisms for timely adjustment of management measures comprising the regime. For example, an FMP could include criteria that allow the Secretary to open and close seasons, close fishing grounds, or make other adjustments in management measures.

(3) Amendment of a flexible FMP would be necessary when circumstances inthe fishery change substantially, or when a Council adopts a different management philosophy and objectives.

§ 602.17 National Standard 7—Costs and Benefits.

(a) *Standard 7.* Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

(b) *Necessity of Federal management.* (1) *General.* The principle that not every fishery needs regulation is implicit in this standard. The Act does not require Councils to prepare FMPs for each and every fishery—only for those where regulation would serve some useful purpose and where the present or future benefits of regulation would justify the costs. For example, the need to collect data about a fishery is not, by itself, adequate justification for preparation of an FMP, since there are less costly ways to gather the data (see § 602.13(d)(2)). In some cases, the FMP preparation process itself, even if it does not culminate in a document approved by the Secretary, can be useful in supplying a basis for management by one or more coastal States.

(2) *Criteria.* In deciding whether a fishery needs management through regulations implementing an FMP, the following general factors should be considered, among others:

(i) The importance of the fishery to the Nation and to the regional economy.

(ii) The condition of the stock or stocks of fish and whether an FMP can improve or maintain that condition.

(iii) The extent to which the fishery could be or is already adequately managed by States, by State/Federal programs, by Federal regulations pursuant to FMPs or international commissions, or by industry self-regulation, consistent with the policies and standards of the Act.

(iv) The need to resolve competing interests and conflicts among user groups and whether an FMP can further that resolution.

(v) The economic condition of a fishery and whether an FMP can produce more efficient utilization.

(vi) The needs of a developing fishery, and whether an FMP can foster orderly growth.

(vii) The costs associated with an FMP, balanced against the benefits (see paragraph (d) of this section as a guide).

(c) *Alternative management measures.* Management measures should not impose unnecessary burdens on the economy, on individuals, on private or public organizations, or on Federal, State, or local governments. Factors such as fuel costs, enforcement costs, or the burdens of collecting data may well suggest a preferred alternative.

(d) *Analysis.* The supporting analyses for FMPs should demonstrate that the benefits of fishery regulation are real and substantial relative to the added research, administrative, and enforcement costs, as well as costs to the industry of compliance. In determining the benefits and costs of management measures, each management strategy considered and its impacts on different user groups in the fishery should be evaluated. This requirement need not produce an elaborate, formalistic cost/benefit analysis. Rather, an evaluation of effects and costs, especially of differences among workable alternatives including the status quo, is adequate. If quantitative estimates are not possible, qualitative estimates will suffice.

(1) *Burdens.* Management measures should be designed to give fishermen the greatest possible freedom of action in conducting business and pursuing recreational opportunities that are consistent with ensuring wise use of the resource and reducing conflict in the fishery. The type and level of burden placed on user groups by the regulations need to be identified. Such an examination should include, for example: capital outlays; operating and maintenance costs; reporting costs; administrative, enforcement, and information costs; and prices to consumers. Management measures may shift costs from one level of government to another, from one part of the private sector to another, or from the government to the private sector. Redistribution of costs through regulations is likely to generate controversy. A discussion of these and any other burdens placed on the public through FMP regulations should be a part of the FMP's supporting analyses.

(2) *Gains.* The relative distribution of gains may change as a result of instituting different sets of alternatives, as may the specific type of gain. The analysis of benefits should focus on the specific gains produced by each alternative set of management measures, including the status quo. The benefits to society that result from the alternative management measures should be identified, and the level of gain assessed.

Appendix A to Subpart B

Explanatory Material

Overview

The guidelines allow for innovative policy evolution in response to new social or economic circumstances, and set out the benchmarks of current fishery management policy under the Act. With responsible management of a valued national resource as the goal, NOAA believes the guidelines should supply the Councils, as fishery management planners, a means to assess their work in developing and documenting their decisions. To that end, certain sections of the guidelines specifically address requirements and options for contents of an FMP, supplementing and drawing into sharper focus provisions of § 602.3 (Contents of Fishery Management Plans), currently in effect. These sections are usually indicated by the paragraph heading "analysis," within which is given more detailed guidance as to the kind of discussion and examination that an FMP should contain to demonstrate consistency with the standard in question. Words within these sections were carefully chosen to convey levels of effort and information commensurate with need (e.g., "consider," "take into account," "explain," "discuss," "examine," "analyze," "identify").

Fishery management decisions affect the fishing industry, the government and the individual taxpayer/consumer. Members of industry, citizens, and those responsible for implementing a fishery management regime need to know the reasons for decisions that affect them. Thus, it is important that certain issues (particularly those that are controversial) undergo enough examination and discussion to illuminate the options, demonstrate the rationales, and justify the final choice of management regime. This implicit democratic principle of accountability in government underlies and reinforces the Secretary's statutory responsibility to make informed judgments regarding an FMP's consistency with the national standards. The principle is reflected in the philosophies of the National Environmental Policy Act (NEPA), the Regulatory Flexibility Act (FRA), the Paperwork Reduction Act (PRA) and Executive Order (E.O.) 12291—all of which seek accountability in regulatory action.

Section 602.2 contains a style guide, which explains the use of specific words to distinguish the advisory, explanatory, or obligatory nature of the guideline language,

and presents other words within the precise context of the guidelines.

Section 602.10 makes it clear that FMPs in substantial compliance with the guidelines, the Act, and other applicable law must be approved. The guidelines are meant as a protection for everyone in the FMP system. Their acceptance and use are a matter of practical utility for the Councils and of public commitment of the agency to consistent application of the policies stated. As an aggregation of policies developed through creative Council responses to regional fishery management problems, they are a way of sharing the empirical knowledge gained over the life of the Act.

Standard 1

Maximum Sustainable Yield (MSY)

Past controversy concerning MSY has related to its adequacy as a goal to be achieved by management. As used in the Act, MSY is a baseline tool in the determination of OY. In recognizing that MSY represents the underlying biological rationale upon which most determinations of OY rest, the guidelines set forth a more flexible framework for its calculation. Recognition of the need for flexibility in approaching MSY and OY has come as a result of plan review experience and Council innovation in adapting these concepts to the characteristics of different fisheries.

It is clear that because the Act requires the MSY specification, every attempt should be made to specify it. The guidelines acknowledge that MSY may be derived from a number of formulas or models (depending on the level and type of information available), that the use of range for MSY is satisfactory, and that in some fisheries a numerical MSY is not essential in establishing an appropriate underlying biological basis for OY. NOAA believes that Congressional intent is served if OY rests, even in these cases, on the best directly relevant biological information available.

The guidelines permit adjustment of (deviation from) MSY prior to determining OY under certain conditions, provided that the adjustment is fully justified in terms of environmental, ecological, or biological data available for the management unit under consideration. One type of adjustment is illustrated by the concept of Acceptable Biological Catch (ABC), used by some Councils. Following from the guideline definition of MSY as a long-term average, ABC is an annually determined catch that may differ from MSY for biological reasons—lower or higher to allow for fluctuating recruitment. It may be set lower than MSY to rebuild overfished stocks, or to be conservative when there is inadequate data on the status of the stocks.

Other types of adjustment to MSY have been made to allow for the influence of environmental factors. For example, the Gulf of Mexico shrimp MSY is adjusted annually through the use of an environmental calculation involving water flow and temperature characteristics. This fishery also illustrates that the biological resiliency and high fecundity of some stocks may allow OY to become a descriptive statement, equivalent—for all practical purposes—to MSY: OY in the Gulf shrimp FMP is equal to all the shrimp harvested under the FMP's management measures. Another instance where stock characteristics influence the determination of OY directly (making a numerical calculation of MSY immaterial) is the stone crab FMP, in which OY is all the stone crab caught with a minimum claw size. (Descriptive OYs can be converted into an annual numerical estimation for purposes of deriving TALFF, and for other reasons.) In cases where specification of MSY may not be technically possible because of lack of assessment data—such as might occur in an unutilized resource for which a fishery suddenly develops or in species that are minor components of mixed species fisheries—the OY still must be derived from biological information, as for example, the proportional abundance of associated species.

Overfishing

Overfishing is a relative term; it cannot be defined in isolation from its biological, economic, or ecological consequences, nor from its relationship to given management objectives. The prevention of overfishing has as its goal the protection of a stock's general reproductive capacity and its productivity in terms of maintaining an adequate supply of catchable fish.

The guidelines state that significant downward trends in spawing stock size and in average annual recruitment to the fishery may signal that overfishing is occurring. Recruitment is the process of adding new fish to the catchable population by the growth of smaller fish, or movement of fish into a fishing area from an unfished area. For an individual fish, recruitment occurs when the fish becomes large enough to be, in some degree, vulnerable to capture by the fishing gear used in the fishery. Thus, one refers to "recruitment to the fishery" to indicate the process of becoming catchable or becoming a recruit.

Ascertaining when these downward trends in stock size and recruitment have been established is a judgment based on information gained over time from scientific stock assessment, from harvesters and processors (through logbooks, catch samples, interviews, weigh-out slips, etc.), and from other sources such as aerial surveys or hydroacoustic data. NOAA also recognizes that a decline in stock size or abundance may occur independent of fishing pressure and that adverse changes in essential habitat may increase the risk that fishing effort will contribute to a stock collapse.

The guidelines specify that an FMP should explain how its conservation and management measures will prevent overfishing, including a program for rebuilding the stock if it has been diminished below a desired level. They also indicate that even if fishing pressure were not the cause of the problem, the Act limits the authority of the Councils in addressing the other causes. The only direct control available under the Act, under any circumstances, is to reduce fishing mortality. These controls might include, for example, establishment of catch quotas, closed seasons, closed areas, limits on mesh size, limited vessel days, and limits on vessels entering the fishery.

Fishing can produce a variety of effects on local and areawide abundance, availability, size, and composition of a stock. Some of these effects have been called "overfishing"; however, the guidelines state that these effects are not "overfishing" under standard 1, and that a Council may recommend conservation and management measures to prevent or permit these effects, depending on the objectives of a particular FMP. These "permissible" types of overfishing have been called "growth," "localized," and "pulse" overfishing.

Growth overfishing occurs when fishing pressure or some other factor results in the taking of too many fish before they have reached their optimum size for harvest. It may be the result of a planned attempt to harvest preferentially because of a demand for a smaller product, a high discard rate of a non-target species, faulty fishing practices, or heavy fishing pressure. Growth overfishing may be discouraged or disallowed by regulating mesh sizes or imposing area closures, to force fishing on larger or more marketable fish, as in the cases of butterfish, surf clams, or Gulf of Mexico shrimp.

Localized overfishing occurs when small portions of a fishery are temporarily overfished at a particular point in space and time. It can occur in reef fish fisheries when fishing pressure causes a temporary denuding of a particular reef. However, the chief characteristic of this type of overfishing is its temporary nature (i.e., the remainder of the stock of fish can repopulate the overfished portion).

Pulse overfishing can be tolerated under certain conditions. For example, it may be desirable for economic and social reasons in a specific fishery to allow the taking of a given amount of fish in a short time, and then let the stock rest for a period. Extra care should be taken so that pulse fishing does not result in serious long-term depletion.

As management regimes become more comprehensive, the interrelationships of fishing pressures on target and nontarget (both major and minor) species will have to be addressed more directly. NOAA believes that rational management of any multi-species fishery includes acknowledging the fact that overharvesting minor subcomponents may be unavoidable. The guidelines allow such overharvesting if the benefits are analyzed, the individual populations within a management unit so affected are identified, and an assessment of the risk of the species reaching a "threatened" or "endangered" status is made so that Council action will not cause any stock component to require protection under the Endangered Species Act.

Whether to allow any type of overfishing will continue to be argued among economists, biologists, industry representatives, and environmentalists. The policy question centers on whether the primary responsibility under the Act is to the resource or to the users of the resource, on the "wise use"/preservation dichotomy inherent in the word "conservation," and on the tension between risk and predictability. NOAA believes that the overfishing sections of the guidelines are responsive to the findings of the Act,

particularly when read in conjuction with the standard 6 guideline provisions for buffers, reserves, and framework plan flexibility.

Optimum Yield (OY)

NOAA believes it important to keep the distinction clear between the two separate parts of standard 1: To prevent overfishing, and to achieve OY. The guidelines are written such that overfishing is an intrinsic limitation on OY; it is built into the OY determination, yet maintains a separate identity as a prohibition. For example, exceeding OY does not constitute overfishing when the fishery is not depressed. On the other hand, exceeding OY may constitute overfishing when the margins of tolerance are low. (Buffers to protect against overfishing because of uncertainty in estimating stock size or domestic harvest may be established in the form of reserves or a reduced OY.)

Whether exceeding OY is overfishing is a separate issue from continual harvest at a level above a fixed-value OY. The latter violates the other half of the standard (which is to achieve OY), whether or not overfishing is the result. Standard 1 may be violated from either side of the OY equation—if the level of harvest is continually above, or below, a fixed-value OY. NOAA believes that the Act requires that an attempt be made to achieve OY on an annual basis year after year, though recognizing that this may not always happen.

The guidelines also state that in the case of a mixed species fishery, the OY for incidental species may be a function of the directed catch, or absorbed into an OY for related species.

NOAA believes that achievement of OY includes giving foreign fishing vessels reasonable opportunity to harvest that portion of the OY that will not be harvested by vessels of the United States (OY minus DAH, called the total allowable level of foreign fishing—TALFF). However, nothing precludes Councils from setting OY equal to DAH (effectively eliminating TALFF), if circumstances warranting it are documented. NOAA has written the guidelines to allow international economic considerations to influence the size of TALFF through adjustment of OY.

Standard 2

Application of this standard affects the operation of all the other standards. The level of information influences the establishment of MSY, OY, and management unit composition; it underlies determinations of allocations, judgments of efficiency, adjustments for variations and contingencies, and evaluations of costs and benefits. The guidelines address the questions of timeliness, opposing bodies of opinion, and practical utility of the information specified, and emphasize the continuing need for information for monitoring and in-season adjustment decisions under a flexible management regime. A voluntary system of data collection is permissible, but requires a justification under the Paperwork Reduction Act, and is not covered under the Act's confidentiality provision. (Under the NOAA data security system, all individually collected fishery data are treated internally with the same degree of protection.) It is acceptable to collect data within State boundaries when needed for proper implementation of an FMP, but duplication of effort should be avoided. Successful data collection depends on the protection of confidential data, the public trust in that protection, and the public perception of the valid uses of those data. The validity of the entire process may hinge on the cooperative attitudes of constituents, the research community, and the relevant governmental institutions.

Standard 3

Standard 3's principle of comprehensive management works well with standard 7's principle of avoiding duplication. The emphasis in the revision is on the scope, composition, and unity of the management unit, and on coordination and cooperation rather than on potential jurisdictional tension. NOAA believes that range-wide planning should encourage active State participation in the planning process, and that such planning will provide clear direction to the States as to what is needed to implement the proposed management regime effectively. This is consistent with Council practice; the result should be greater compatibility between Federal and State management measures.

Because the potential for incompatibility does exist, however, the guidelines require an FMP to discuss the interrelationship between State management activities and the proposed Federal regime. Federal regulations supersede any conflicting State regulations of FCZ fishing (F/V American Eagle v. Alaska, No. 2227 (Alaska, Nov. 21, 1980)). State landing laws and other forms of indirect regulation of FCZ fishing may be affected by implementing an FMP. The required analysis focuses attention on these impacts and on the effect of inconsistent State action on attaining the objectives of the FMP. This latter discussion will assist in determining Secretarial responsibilities under section 306(b) of the Act.

Standard 3 calls for management of a "stock" throughout its range. NOAA feels that the use of the words "stock," "fishery," and "management unit" is significant, and has endeavored to use the appropriate term in the guidelines. A stock may be larger than the fishery, as is the case when only a portion of the stock is actively fished. A fishery may be larger than a stock, when more than one stock is fished together. The management unit may ignore a portion of a fishery or stock when it includes a transboundary fishery or when a minor portion of the unit is fished within the area of authority of another Council. Examples are given of the perspectives around which a management unit may be organized.

Standard 4

To assist Councils in making what are usually the most controversial decisions within an FMP, NOAA has tried to confront the human issues surrounding fishery management directly, consistent with its concern for the econoimic and social consequences of regulation.

The guidelines address the "discrimination among residents of different States" issue as an extension of the Federal "privilege and immunities" clause of the U.S. Constitution, which means that Councils may not rely on, nor incorporate within an FMP, a State law that discriminates against residents of a different State. Discrimination is a distinct concept from equity.

Fishery management is essentially a series of allocations among present users, between present and future users, between public and private interests. The guidelines define "allocation" for purposes of the standard as a direct and deliberate distribution of the opportunity to participate in a fishery among identifiable, discrete groups of fishermen. Because only measures that meet the definition will be judged against the standard, this is a critical and sensitive differentiation.

Many management measures may have an *incidental* effect on the fishing privileges enjoyed by different groups of U.S. fishermen. Any quota has a distributive effect on present and future users through its impact on stock maintenance or rebuilding. Area closures may cause practical difficulties for smaller vessels or those located far from open areas. Seasonal quotas create difficulties for those whose economics of operation do not permit a long period of inactivity.

Direct allocations, by contrast, have been made by the several Councils in a variety of FMPs in the past: Quotas by classes of vessels (Atlantic groundfish), quotas for commercial and recreational fishermen (Atlantic mackerel), different fishing seasons for recreational and commercial fishermen (salmon), assignment of ocean areas to different gears (stone crab), and limiting permits to present users (surf clam). These direct allocations were approved under standard 4 because the Councils complied with the three statutory criteria of the standard in constructing their allocation schemes.

The guideline's definition is an attempted middle ground between all measures affecting fishing practices and measures designated as allocations in an FMP. The distribution must be direct and deliberate, but a Council could not disclaim an intent to allocate through a measure that had obvious and inevitable allocative effects.

NOAA believes that the required analysis of allocations and alternative schemes considered—including the status quo—will help to focus attention on the existing distribution of privileges and the alteration of that distribution which Federal management will impose. Each FMP should contain the Council's judgment on fairness and equity, conservation promotion, and possible monopolistic or oligopolistic effects of the proposed allocations.

The guidelines link "fairness" with FMP objectives and OY and acknowledge that fishing rights of treaty Indians and aboriginal Americans should be factored into Council judgments. Rational use of the resource is suggested as one way an allocation scheme may promote conservation. A more visible conservation purpose is illustrated by the moratorium on entry of new vessels into the surf clam fishery, initiated to mitigate a resource crisis in a stock.

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Standard 5

NOAA believes that, for purposes of standard 5, efficiency can be defined as the ability to produce a desired effect or product (or achieve an objective) with a minimum of effort, costs, or misuse of valuable biological and economic resources. In other words, Councils should choose management measures that achieve the FMP's objectives with minimum cost and burdens on society. NOAA believes that particular care should be taken when considering management of common property resources—where intensive individual market actions risk the "tragedy of the commons," a concept that comprises damage not only to the individual fisherman, but to the very resource on which he depends. Where there are no property rights, the role of government takes on the dimension of stewardship. NOAA also believes that managing at least cost to society and managing at least cost to the fisherman are not mutually exclusive. NOAA reads standards 5 and 7 together; to minimize costs of regulating also means to minimize costs to the industry of compliance.

The guidelines also recognize the difficulty inherent in reconciling particular economic and social needs of industry participants and consumers with this goal of efficiency. For example, maximizing employment opportunities by allowing continued overcapitalization instead of reducing effort might be considered inefficient in terms of an economic goal, but not necessarily in terms of a social goal. Or, when it is necessary to preserve a subsistence way of life or enjoyment of recreational fishing, application of the efficiency standard may not be appropriate. Councils thus may have to choose between—or rank—competing objectives.

NOAA believes that an FMP should not restrict the use of productive and cost-effective techniques of harvesting, processing or marketing, unless such restriction is necessary to achieve the conservation or social objectives of the FMP. For example, the Pacific salmon FMP provides for use of a barbless hook to decrease mortality of sublegal coho and chinook. The high seas salmon FMP requires "heads on" landing for fin-clipped coho and chinook to insure recovery of coded wire tags used to establish a needed distribution data base. In both cases, reduction in efficiency was outweighed by the conservation benefit.

Administrative efficiency can be a factor in choosing between management regime alternatives, as well. The Gulf of Mexico shrimp FMP's cooperative Texas closure, for example, increased the effectiveness and efficiency of enforcement.

NOAA chose to address the questions surrounding "limited access" in the context of standard 5 rather than in standard 4, even though limited access, by its nature, is an allocative measure. In fact, the guidelines caution that any limited access system must be consistent with section 303(b)(6) of the Act and the standard 4 guidelines. NOAA believes that placement within standard 5 puts the emphasis more appropriately on concepts of economic efficiency in achieving OY rather than on the contentious issues of right of entry, or limit on effort, per se. The placing of limited access within the standard 5 context does not imply, however, that efficiency is always attained by limited access, nor that limited access is the most desirable method of attaining efficiency, nor that efficiency is the only purpose for limited access, nor that limited entry has always resulted in the benefits listed in the guidelines.

Standard 6

NOAA recognizes that each fishery exhibits unique uncertainties, and that the unpredictable nature of the fishery resource caused by vulnerability to changing conditions and unforeseeable events makes long-term planning difficult. Long-term objectives are more easily attainable in the more stable fisheries. The guidelines clarify that it is possible to compensate for variations by establishing buffers; protection against contingencies is urged through use of flexibility in the regulatory process.

Standard 7

The principles of standard 7 coincide with many earnest and recently intense efforts of NOAA and the Councils to streamline the FMP process. As more FMPs have come on line, the costs of enforcement and of collecting data for monitoring, while reduced per FMP, have increased in total. The rising costs of fishing, due in part to dependence on petroleum-based products, has intensified the need to consider the impact of potentially burdensome regulations. Thus, it has become necessary to be more precise in evaluating the costs to industry and to goverment, to support comprehensive management, and to work toward a flexible regulatory structure.

NOAA believes that the requirements of E.O. 12291 and other regulatory reform legislation quite appropriately focus attention on the threshold question of the actual need for management through regulation. Even when a Council believes there is an advantage to managing a fishery, growing public concern over excessive Federal regulation of private activities and over the need to reduce the cost of government emphasizes the responsiblity to ensure that FMPs are developed only for those fisheries where the need for Federal regulation can be clearly demonstrated. For these reasons, the guidelines propose criteria to assist in making these threshold decisions.

NOAA recognizes that the wide diversity of fisheries and of management objectives increases the difficulties of devising a quantitative cost/benefit analysis for fishery management measures. However, under the guidelines, the types of analyses suggested under standards 4 and 5 would be the first steps in evaluating relative distribution of gains and burdens produced by each alternative set of management measures. While weight of intangibles such as recreational enjoyment, habitat protection, or social dislocation often cannot be expressed in dollar terms, NOAA believes they should be considered and described as explicitly as possible.

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