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Friday  
May 1, 1998

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**Part II**

**Department of  
Commerce**

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National Oceanic and Atmospheric  
Administration

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50 CFR Part 600  
Magnuson-Stevens Act Provisions;  
National Standard Guidelines; Final Rule

## DEPARTMENT OF COMMERCE

## National Oceanic and Atmospheric Administration

## 50 CFR Part 600

[Docket No. 970708168-8073-02; I.D. 061697B]

RIN 0648-AJ58

## Magnuson-Stevens Act Provisions; National Standard Guidelines

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Final rule.

**SUMMARY:** NMFS revises guidelines for national standards 1 (optimum yield), 2 (scientific information), 4 (allocations), 5 (efficiency), and 7 (costs and benefits); and adds guidelines for new national standards 8 (communities), 9 (bycatch), and 10 (safety of life at sea). The guidelines are intended to assist in the development and review of Fishery Management Plans (FMPs), amendments, and regulations prepared by the Regional Fishery Management Councils (Councils) and the Secretary of Commerce (Secretary) under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). The revisions and additions implement the October 1996 amendments to the Magnuson-Stevens Act, which resulted from the Sustainable Fisheries Act (SFA). Additional minor changes are made to conform national standard guideline language to the Magnuson-Stevens Act, as amended. Numerous changes were made to the proposed rule based on comments received.

**DATES:** Effective June 1, 1998.

**FOR FURTHER INFORMATION CONTACT:** George H. Darcy, 301-713-2341.

**SUPPLEMENTARY INFORMATION:** On October 11, 1996, the President signed into law the SFA (Pub. L. 104-297), which made numerous amendments to the Magnuson-Stevens Act (16 U.S.C. 1801 *et seq.*). This rule amends 50 CFR part 600, subpart D, to update the national standard guidelines and to implement the Magnuson-Stevens Act amendments pertaining to the national standards.

**Background**

Section 301(a) of the Magnuson-Stevens Act contains 10 national standards for fishery conservation and management, with which all FMPs and amendments prepared by the Councils and the Secretary must comply. Section

303(b) requires that the Secretary establish advisory guidelines, herein referred to as "national standard guidelines," based on the national standards, to assist in the development of FMPs. In addition to amending several existing national standards, the SFA established three new national standards, which require consideration of impacts of fishery management decisions on fishing communities (national standard 8), bycatch (national standard 9), and safety of life at sea (national standard 10).

On August 4, 1997, NMFS published a proposed rule at 62 FR 41907 to amend the national standard guidelines; comments were requested through September 18, 1997. The preamble of the proposed rule contained detailed descriptions of the proposed amendments, which are not repeated here. Thirty-seven sets of comments were received during the comment period, which are responded to in the Comments and Responses section of this preamble.

Because of remaining issues regarding interpretation of the Magnuson-Stevens Act's provisions relative to overfishing and rebuilding overfished stocks, NMFS reopened the public comment period on national standard 1 on December 29, 1997 (62 FR 67608), for an additional 30 days. Comments were specifically requested regarding four issues: (1) Usage of the terms "overfishing" and "overfished," (2) usage of the terms "fishery" versus "stock," (3) rebuilding schedules for overfished stocks, and (4) exceptions for mixed-stock fisheries. The notice of reopening of the comment period on national standard 1 contained a detailed explanation of those issues, which is not repeated here. Thirty-four additional sets of comments were received during the reopened comment period; those comments are also responded to in the Comments and Responses section.

**Changes from the Proposed Rule**

As a result of public comments received both during the initial comment period and the reopened comment period, NMFS has made the following changes from the proposed rule:

**General**

NMFS reviewed the entire text of the guidelines to ensure that the terms "shall," "must," and "should" are used consistent with the definitions in § 600.305. "Shall" is used only when quoting directly from the statute, "must" denotes a statutory obligation, and "should" indicates that an action is strongly recommended to fulfill the

Secretary's interpretation of the Magnuson-Stevens Act.

**National Standard 1**

1. Section 600.310(c)(3) has been revised to indicate that a reasonable proxy for the MSY stock size is approximately 40 percent of the pristine stock size, rather than the range of 27-75 percent as previously included. This change was made to better reflect the findings of fishery science literature. (See also the response to comment 20 under national standard 1).

2. Section 600.310(d)(4)(iii) has been revised to include a reference to guidelines issued under section 305(b) of the Magnuson-Stevens Act for Council actions concerning essential fish habitat. (See also the response to comment 18 under national standard 1.)

3. Section 600.310(d)(6) has been revised to provide more flexibility in managing mixed-stock fisheries. The proposed guidelines would have allowed overfishing on one component of a mixed-stock fishery only if the rate or level of fishing mortality would not cause any stock or stock complex to fall below its minimum stock size threshold. Paragraph (d)(6)(iii) has been revised to remove that requirement. Paragraph (d)(6)(ii) has been revised to clarify that the intent of the required analysis is thorough consideration of measures that could prevent or mitigate overfishing of one or more stocks in a mixed-stock fishery. (See also the response to comment 35 under national standard 1.)

4. Section 600.310(e)(4)(ii) has been substantively revised to elaborate on the length of rebuilding programs for overfished stocks. The proposed guidelines had simply repeated the statutory language from section 304(e)(4) of the Magnuson-Stevens Act. The notice reopening the comment period offered two options. After considering public comments (see comments 8-16 under national standard 1), NMFS has chosen the more flexible interpretation.

To give meaning to the statutory requirement that a rebuilding program be "as short as possible," the starting point in structuring a rebuilding program is the length of time in which a stock could be rebuilt in the absence of fishing mortality on that stock. If that period is less than 10 years, the factors in section 304(e)(4)(A)(i), including the needs of fishing communities, may be used to adjust the rebuilding period up to 10 years. If the stock cannot be rebuilt within 10 years, because of the factors listed in section 304(e)(4)(A)(ii), the factors in section 304(e)(4)(A)(i) may be used to justify a schedule longer than the no-mortality period. To ensure that

the rebuilding period is not indefinite, the outside limit of the rebuilding period is the no-mortality period plus one mean generation time (or equivalent period based on the species' life-history characteristics).

5. Section 600.310(f)(2)(i) and (ii) have been revised so as not to under emphasize the benefits to the Nation accruing from food production and recreational opportunities. (See also the response to comment 34 under national standard 1.)

6. Section 600.310(f)(4)(ii) has been revised so that the annual harvest level obtained under an OY control rule "must" instead of "should" always be less than or equal to the harvest level under an MSY control rule. This change reflects the SFA's amendment to the definition of "optimum."

7. Section 600.310(f)(4)(iii) has been revised to change the term "research fishing" to "scientific research" to clarify that "fishing" under the Magnuson-Stevens Act does not include scientific research activity conducted from a scientific research vessel. (See also the response to comment 45 under national standard 1.)

#### National Standard 2

1. Section 600.315(e)(1) introductory text has been revised to clarify that SAFE reports are intended to summarize the most recent information concerning the biological condition of stocks and the marine ecosystems in the fishery management unit and the social and economic condition of the recreational and commercial fishing interests, fishing communities, and the fish processing industries. (See also the response to comment 4 under national standard 2.)

2. Section 600.315(e)(1)(ii) has been revised to include safety as one of the types of information that should be summarized in SAFE reports. (See also the responses to comment 2 under national standard 2 and comment 3 under national standard 10.)

#### National Standard 5

Section 600.330(b)(1) has been revised to replace the term "encouraging," with regard to efficient utilization of fishery resources, with the term "considering," to make the wording consistent with the intent of Congress. (See also the response to comment 1 under national standard 5.)

#### National Standard 8

Section 600.345(c) has been revised, replacing "should" with "must" in order to reflect the obligation under national standard 8.

#### National Standard 9

1. Section 600.350(b) has been revised in its entirety to clarify the consideration of bycatch effects of existing and planned conservation and management measures. (See also the response to comment 11 under national standard 9.)

2. Section 600.350(c) has been revised to add language to clarify that Atlantic highly migratory species harvested in a commercial fishery that are not regulatory discards and that are tagged and released alive under a scientific tag-and-release program established by the Secretary are not considered bycatch. Also, language was added to specify that bycatch includes the discard of whole fish at sea or elsewhere. (See also the responses to comments 7 and 8 under national standard 9.)

3. Section 600.350(c)(2) has been removed. (See also the response to comment 7 under national standard 9.)

4. Section 600.350(d) has been revised by replacing "should" with "must" in order to reflect the obligation under national standard 9. The introductory text has also been revised to emphasize that NMFS believes the first priority for reducing bycatch should be to avoid catching bycatch species where possible. Additional text has been added to § 600.350(d) to indicate that, in their evaluation of bycatch minimization measures, Councils must consider net benefits to the Nation. At the end of § 600.350(d) introductory text, the word "shall" has been changed to "must" to emphasize that the evaluation requirements of the Magnuson-Stevens Act under this national standard are not discretionary. (See also the responses to comments 24, 25, and 28 under national standard 9.)

5. The first sentence in section 600.350(d)(1) has been revised, replacing "should" with "must" in order to reflect the required provisions of a fishery management plan under section 303(a)(11) and (12) of the Magnuson-Stevens Act.

6. Section 600.350(d)(2) has been revised to indicate that, in the absence of quantitative estimates of the impacts of each alternative, Councils may use qualitative "measures" (rather than "estimates"). In addition, a sentence has been added to indicate that information on amount and type of bycatch should be summarized in the SAFE report. (See also the response to comment 31 under national standard 9.)

7. Section 600.350(d)(3) has been revised to include language that indicates that determinations of whether conservation and management measures minimize bycatch and bycatch mortality

to the extent practicable must also be consistent with maximization of net benefits to the Nation. The paragraphs under § 600.350(d)(3) have been redesignated to accommodate the addition of a new paragraph (d)(ii), which states that the Councils should, in selecting bycatch minimization measures, adhere to the precautionary principle found in the FAO Code of Conduct for Responsible Fisheries. (See also the responses to comments 33 and 35 under national standard 9.)

8. Section 600.350(d)(4) has been revised to delete the terms "implement" and "implementation" when referring to the Councils' required actions under national standard 9, because it is NMFS' responsibility, rather than that of the Councils, to implement management measures. This change was not a result of public comment.

#### National Standard 10

Section 600.355(b)(3) has been revised to include language that clarifies that safety of the fishing vessel and the protection from injury of persons aboard the vessel are considered the same as "safety of human life at sea." (See also the response to comment 5 under national standard 10.)

### Comments and Responses

#### General

Numerous commenters concluded that, in general, the proposed guidelines reflect fairly the intent of the SFA's amendments to the Magnuson-Stevens Act. Comments concerning specific aspects of the proposed revisions to guidelines for individual national standards are presented and responded to in the following paragraphs.

NMFS received several comments on language contained in the preamble of the proposed rule. Because the preamble was intended only to explain and clarify material contained in the codified text, NMFS has not responded to comments that pertained only to the preamble. However, in instances where such comments pertained also to language in the codified text, or where such comments led to changes in the codified text from the proposed rule, NMFS has responded in the following paragraphs.

*Comment 1:* Several commenters expressed their view that sufficient flexibility should be provided in the guidelines to provide managers with appropriate latitude to meet the objectives of the SFA while respecting the needs of communities and citizens.

*Response.* NMFS agrees that some flexibility in application of the national standards was intended by Congress, is necessary to manage the diverse

fisheries of the Nation, and should be provided to respond to the needs of fishery participants and communities, so long as the stocks upon which the fisheries are based can be rebuilt and their productivity sustained. However, any such flexibility must be consistent with all of the statutory requirements of the Magnuson-Stevens Act. In addition, NMFS believes that the guidelines must reflect the intent of the Magnuson-Stevens Act taken as a whole. After carefully considering the public comments received, the language in the SFA, and the legislative history, NMFS concluded that there is justification to introduce greater flexibility in certain aspects of the guidelines, most notably the rebuilding schedules for overfished stocks and for mixed-stock fisheries; those changes have been made in this final rule. (See also Changes from the Proposed Rule and responses to comments 9 and 35 under national standard 1.)

*Comment 2.* One letter of comment stated that the final rule should clarify that the national standard guidelines are advisory and do not have the force and effect of law.

*Response.* NMFS agrees that the guidelines do not have the force and effect of law and believes it made that point clearly in the preamble to the proposed rule. For example, the proposed rule contains the following statements:

(1) "These proposed guidelines are intended to provide direction and elaboration on compliance with the national standards and, in themselves, do not have the force and effect of law."

(2) "The guidelines are intended to assist in the development and review of Fishery Management Plans (FMPs), amendments, and regulations ..."

(3) "The proposed guidelines explain requirements and provide some options for compliance with the guidelines. Lists and examples are not all inclusive; rather, they are intended to provide illustrations of the kind of information, discussion, or examination/analysis useful in demonstrating consistency with the standard in question. The proposed guidelines are intended to provide for reasonable accommodation of regional or individual fishery characteristics, provided that the requirements of the Magnuson-Stevens Act are met. The guidelines are intended as an aid to decision making, with responsible conservation and management of valued national resources as the goal."

(4) "The main purpose of the guidelines is to aid the Councils in fulfilling the requirements of the Magnuson-Stevens Act."

Throughout the proposed rule, the guidelines are referred to as advisory, explanatory, and interpretive. In addition, NMFS has attempted to make clear the distinction between "must" and "should" as used in the guidelines.

*Comment 4.* One commenter stated that it will be very difficult for the Councils to meet the SFA's compliance deadlines for all fisheries, given the requirements set forth in the guidelines.

*Response.* NMFS agrees that the statutory deadlines established by the SFA and reflected in the guidelines will be challenging to meet. However, NMFS is committed to working closely with the Councils to meet those deadlines.

*Comment 5.* One commenter suggested that aquaculture activities should be considered in the guidelines because, even with the best regulatory controls and the restoration of wild stocks to levels that produce maximum sustainable yield (MSY), the demand for seafood products cannot be met from these sources alone.

*Response.* Aquaculture is considered a fishery, as defined by the Magnuson-Stevens Act, so the national standard guidelines apply and should be followed by Councils as they consider integrating aquaculture activities into FMPs.

*Comment 6.* One commenter questioned NMFS' ability to comply with several provisions of the SFA because of budgetary constraints.

*Response.* Compliance with all of the provisions of the amended Magnuson-Stevens Act has been difficult, at best. However, NMFS has had significant success in implementation, within the available resources, using all of the available tools at its disposal. For example, the great majority of the deadlines established in the SFA that are within the control of NMFS have been met. In the few instances where deadlines have been missed, it has been primarily the result of providing additional time for public involvement and comment. NMFS' successes in meeting deadlines have been due in part to reprogramming of priorities and resources within NMFS to the maximum extent allowed by law, and to Congressional reprogramming of funds made available within NOAA.

*Comment 7.* One commenter stated that NMFS must consider all affected users, including seafood consumers, in managing fisheries. The goal should be healthy, sustainable use for everyone's benefit.

*Response.* NMFS agrees that all users must be considered in achieving the Magnuson-Stevens Act's goal of maximizing net benefits to the Nation.

*Comment 8.* Two commenters stated that NMFS is inviting trouble by stating in the preamble that it will take considerable time and effort to bring all FMPs into compliance. Waiting until the October 11, 1998, deadline to amend all FMPs will cause a logjam of amendments, and conservation reforms will not be implemented in a timely manner.

*Response.* NMFS has worked with the Councils from the earliest stages of implementation of the SFA to plan and prepare for necessary amendments of FMPs. In addition, NMFS has conveyed to the Councils that, on October 11, 1996, the day the President signed the SFA into law, many of the provisions of the SFA, such as national standards 8, 9, and 10, became effective. All regulatory actions finalized after that date were required to comply with those standards, as well as with many other provisions of the SFA. In some cases, the details of implementation have had to be developed, such as the national standard guidelines that are the subject of this rule. Until those details are finalized, the Councils will not be able to take them fully into account in development of their management actions. As the specifics of those provisions are finalized, all of the Councils' proposed actions will be judged on the basis of those requirements, as well.

*Comment 9.* Several commenters suggested that anecdotal information and public testimony should be allowed and treated as fact. A particular concern was that, in establishing objective and measurable criteria for determining the status of a stock, anecdotal information from fishermen, especially commercial information, is precluded from use in stock assessments.

*Response.* The Magnuson-Stevens Act requires the use of the best scientific information available and the use of quantifiable parameters to manage fisheries. The inclusion of objective and measurable criteria in the guidelines applies the Magnuson-Stevens Act's approach to using reproducible, scientifically based information in stock assessments. This approach is necessary to preclude having to choose among unsubstantiated opinions about a stock's condition. The public is free, however, to submit anecdotal information to the Councils and to the Secretary, including through public testimony and comment during the development of plans and implementing regulations; all such information will be made part of the administrative record. While anecdotal information cannot be afforded the same status as scientific information obtained under a well-designed data collection

plan, it can be particularly useful in identifying potential problems with scientifically obtained information and can be part of the basis for a redesign of the data collection program.

*Comment 10.* Several commenters requested that, given the complex nature of the proposed guidelines, additional time be allowed for public comment. Others expressed serious concern that the lack of guidance on critical issues such as overfishing could compromise the ability of the Councils to comply with the new conservation requirements of the Magnuson-Stevens Act. Some commenters felt that delays in issuing final guidelines have undermined public confidence in NMFS' commitment and ability to effectively implement the conservation mandates of the Magnuson-Stevens Act and urged NMFS to complete the comment periods and proceed with advice and guidelines to the Councils as swiftly as possible.

*Response.* Despite its commitment to publish final guidelines as soon as possible, after reviewing the diverse comments received during the first comment period, NMFS determined that it was in the best interest of the public to provide an additional opportunity for comment on the most problematic issues regarding national standard 1. However, the completion of the Report to Congress and notification of Councils of the list of overfished fisheries on September 30, 1997, placed an imperative on NMFS to complete the guidelines as quickly as possible. If Councils fail to submit rebuilding plans for all overfished stocks by September 30, 1998, the Secretary must develop rebuilding plans for the Councils for each overfished stock by June 30, 1999.

*Comment 11.* One commenter disagreed with NMFS' determination that the proposed rule would not have a significant economic impact on a substantial number of small entities for purposes of the Regulatory Flexibility Act.

*Response.* NMFS believes that its determination of no significant economic impacts on a substantial number of small entities in the proposed rule accurately reflects the effects of this action on small entities. Because this rule only amends guidelines, and does not have the force and effect of law, it does not, in itself, revise any existing regulatory programs or establish any new regulatory requirements. NMFS has no basis, at this time, to assess specific effects of possible future management actions that may result from this rule, except in the broadest sense. Only when future amendments to fishery management programs are implemented

will potential impacts on small entities occur. At the time regulations are developed, the impacts on small entities of potential alternatives will be assessed; Regulatory Flexibility Analyses and other analytical documents will be prepared, as required by applicable law, and made available for public comment.

#### National Standard 1

*Comment 1.* Several commenters objected to the fundamental role played by MSY throughout the guidelines for national standard 1. A variety of reasons were cited, including the lack of flexibility afforded by use of MSY, the difficulty of estimating MSY, and the fact that some fishery scientists disfavor the concept.

*Response.* No change was made. MSY is key to the Magnuson-Stevens Act, even more so than under the former Magnuson Act. MSY now constitutes an upper limit on optimum yield (OY), as stated in section 3(28)(B) of the Magnuson-Stevens Act; is established as the initial target for rebuilding an overfished stock or stock complex in section 3(28)(C); and is the cornerstone of the definition of overfishing in section 3(29). In reviewing the language in the Magnuson-Stevens Act as a whole, and the legislative history of the SFA, NMFS believes the lack of flexibility imposed by ascribing such a fundamental role to MSY was clearly an intent of Congress. The difficulty of estimating MSY is a significant problem that will require the best efforts of NMFS and the Councils to solve. While it is true that some fishery scientists disfavor the concept of MSY, others find it very useful, and its application in international agreements is on the increase, particularly in the establishment of precautionary approaches to fishery management.

*Comment 2:* Several commenters offered the following view relative to the usage of "overfishing" and "overfished": The terms "overfishing" and "overfished" used in the SFA are intended to have the same meaning given to the term "overfishing" in the existing guidelines and are not intended to change the emphasis on or timeframe for addressing overfishing. The deletion of the modifier "long-term" from the regulatory definition of "overfishing" was not significant; the use of MSY is a target, not a constraint within which OY is determined. However, use of the term "fishery" instead of "stock or stock complex" in the SFA definition of overfishing and overfished was an intentional change from the wording in the existing guidelines to ensure that

multi-species or mixed-stock fisheries are managed and considered as a unit.

Other commenters agreed with NMFS' interpretation that removal of the phrase "long-term" in the statutory language is significant in that it raises the standard to which conservation and management measures are held.

*Response:* NMFS disagrees that the definition for "overfishing" and "overfished" in the SFA did not change the emphasis on or timeframe for addressing overfishing or that MSY is only a target instead of a constraint. However, NMFS does agree that use of the term "fishery" instead of "stock or stock complex" was an intentional change intended to allow for the management of mixed-stock fisheries on a unit basis (see also response to comments 35 and 36). The definition for "overfishing" and "overfished" (identically defined) has as its basis the current definition of "overfishing" in the existing national standard guidelines (50 CFR 600.310(c)(1)). That definition states: "Overfishing is a level or rate of fishing mortality that jeopardizes the long-term capacity of a stock or stock complex to produce MSY on a continuing basis."

During the development of the Magnuson-Stevens Act's amendments, NOAA suggested to Congressional staff that the phrase "long-term" be deleted from the definition of "overfishing" to require Councils to stop overfishing sooner rather than later. Congress chose to delete the modifier "long-term" when referring to the capacity of a stock to produce MSY. NOAA considered this change to be significant. Other amendments to the SFA bolster this interpretation:

(1) The rebuilding requirements (especially the 10-year maximum with three very limited exceptions, and the Secretary's obligation to develop rebuilding plans if the Councils fail to do so).

(2) Congress' conclusion that the survival of certain stocks is threatened and that immediate action needs to be taken to protect those stocks (section 2(a)(2) of the SFA).

In addition, floor debates in both the House and Senate expressed Congressional displeasure with the length of time Councils have taken in the past to address overfishing problems (see, for example, the statement of Senator Stevens at S10810, September 18, 1996).

The SFA points to MSY as the goal of rebuilding programs and to maintenance of stocks at this level on a continuing basis. Unless MSY is established as a strict goal, the greatly enhanced benefits anticipated by enactors of the SFA

cannot be achieved. This position is supported by the following:

(1) The intent of the SFA was to require Councils to ensure that fish stocks were not harvested beyond their MSY, as evidenced by the debate on the floor of the House, when members voted 304-113 to adopt the Gilchrest amendment specifically stating that OY could no longer exceed MSY. The new definition of "optimum" was maintained in the Senate bill that ultimately became law.

(2) Section 3(28)(C) indicates that, for overfished fisheries, rebuilding is to occur until the stocks have reached a level that can produce MSY on a continuing basis.

(3) Inclusion of a rebuilding requirement in the Magnuson-Stevens Act implies that stock size is relevant to the concept of "overfishing" and "overfished," and that MSY (a measure of biomass) is to be used as the measure against which the success of a rebuilding program is judged. A rebuilding requirement without a biomass foundation has no meaning.

(4) The phrase "on a continuing basis" in the SFA definition of "overfishing" indicates that stocks are to be maintained at levels capable of producing MSY (and OY) on a continuous (uninterrupted) basis; thus, short-term overfishing that causes populations to decline below these levels is not permissible. HR 39 would have allowed OY to exceed MSY for healthy fisheries, but that approach was rejected in the Senate bill, which became law.

(5) Senator Hollings in the floor debate on the Sustainable Fisheries Act (Congressional Record - Senate, September 18, 1996) stated that "The bill also: First, caps fishery harvests at the maximum sustainable levels and requires action to prevent overfishing and rebuild depleted fisheries; \* \* \*"

(6) The summary of the Managers Amendment to S. 39 (The Sustainable Fisheries Act), as printed in the Congressional Record - Senate on September 19, 1996, states in the discussion regarding definitions that "this change prevents the maximum sustainable yield of a fishery from being exceeded."

(7) Senate Report No. 104-276 regarding The Sustainable Fisheries Act states on page 4077 that "Finally, the substitute would amend the existing definition of 'optimum' with respect to fishery yield to cap fish harvests at the maximum sustainable yield."

*Comment 3.* Several commenters objected to the proposed definition of MSY control rule in § 600.310(c)(1)(ii) or to the identification of the maximum

fishing mortality threshold with the MSY control rule in § 600.310(d)(2)(i). Typically, the objections centered around the degree of flexibility afforded to the Councils in choosing the form of the MSY control rule (and thereby, the maximum fishing mortality threshold). Commenters generally felt that the language of the Magnuson-Stevens Act permits only one choice of MSY control rule—namely, harvesting at a single, invariant rate, where this rate is chosen so as to maximize the resulting long-term average yield. Given this interpretation, the commenters stated that the Councils should be denied the option of varying the maximum fishing mortality threshold as a function of stock size.

*Response.* No change was made. While the Magnuson-Stevens Act clearly requires that fishing mortality be prevented from exceeding rates or levels that would jeopardize the capacity of a stock or stock complex to produce MSY on a continuing basis, it does not indicate that such rates or levels cannot vary with stock size. In general, MSY control rules that allow for the fishing mortality rate to vary with stock size (i.e., those that decrease fishing mortality when stock size is low) provide a higher average catch and a lower probability of observing a seriously reduced stock size than those that require the fishing mortality rate to remain constant. NMFS believes both of these characteristics are very much in keeping with the letter and intent of the Magnuson-Stevens Act.

*Comment 4.* Several commenters objected to the proposed inclusion of a "constant catch" example in § 600.350(c)(2)(i), feeling that this particular MSY control rule is inefficient or potentially dangerous.

*Response.* No change was made. The example is included partly for logical completeness. The commenters are correct that this control rule is a safe harvest strategy only when the catch level is chosen very conservatively, in which case some amount of potential yield is foregone. However, in cases where minimizing harvest variability is a primary concern, it is conceivable that the greatest net benefits might be realized by making such a tradeoff (i.e., by giving up a certain amount of catch, on average, in order to increase year-to-year stability of harvests).

*Comment 5.* Several commenters objected to the proposed definition of MSY in § 600.310(c)(1)(i). Concerns included the fact that the largest long-term average catch may vary with changes in the minimum size limit or selectivity pattern, the perception that the definition is invalid for stocks that

are already overfished, and the difficulty of establishing a long-term average under current environmental conditions when those conditions do not prevail over the long term.

*Response.* No change was made. As defined in § 600.310(c)(1)(i), MSY does not vary with changes in the minimum size limit or selectivity pattern. While such changes can have an effect on long-term average catches, the guidelines view MSY in a more global sense. In other words, MSY is the largest long-term average catch across all possible management regimes, not just a single management regime characterized by a particular minimum size limit or selectivity pattern. In terms of its applicability to overfished stocks, the guidelines' definition of MSY is valid, providing that "long-term" is suitably defined. As to the relationship between MSY and environmental conditions, it should be noted that MSY is the largest long-term average catch that could be obtained if current ecological and environmental conditions were to remain constant indefinitely. Of course, ecological and environmental conditions do not remain constant indefinitely, which is one of the reasons for the guidelines' emphasis on the fact that MSY is a theoretical concept, rather than an empirical one.

*Comment 6.* Several commenters were concerned that insufficient consideration was given to allowing for uncertainty in the estimation of MSY, for example due to errors in catch and other input data, estimation errors in stock assessments, frequency of stock assessments, and changes in environmental conditions.

*Response.* No change was made. As emphasized in § 600.310(c)(2)(ii), allowing for uncertainty in the estimation of MSY is important. The items listed in the above comment are excellent examples of factors that Councils are encouraged to consider in the process of incorporating appropriate consideration of risk into the estimation of MSY.

*Comment 7.* Several commenters objected to the examples of alternatives to specifying MSY in § 600.310(c)(3). A variety of reasons were cited, including the fact that some of the examples listed might not be appropriate in all cases, the fact that some possible alternatives were not listed, and the fact that the alternatives listed depend on estimated values rather than known quantities.

*Response.* No change was made. As noted in § 600.305(c)(9), examples (such as those listed in § 600.310(c)(3)) are given by way of illustration and further explanation. They are not inclusive lists; they do not limit options. Thus,

the reference points listed in § 600.310(c)(3) are intended to suggest some ways in which Councils might proceed in the event that data are insufficient to estimate MSY directly. The fact that a reference point is not included in § 600.310(c)(3) does not necessarily mean that it may never be used as a proxy for MSY. Nor does the fact that a reference point is included in § 600.310(c)(3) necessarily mean that it may always be used as a proxy for MSY. However, there is no escaping the conclusion that, regardless of whether MSY or a proxy is used, some sort of estimation will necessarily be involved.

*Comment 8.* Several commenters objected to proposed paragraphs that contain references to a 10-year time period for rebuilding, but that do not contain the full text of the statutory language clarifying that 10 years is a constraint rather than a target. In particular, some commenters objected to the mention of a 10-year time period for rebuilding in § 600.310(d)(2)(ii), feeling that this contradicted the fuller discussion of the statutory language in § 600.310(e)(4)(ii). More specifically, a stock that is below the MSY level, but not overfished under § 600.310(d)(2)(ii), might take as long as 10 years to rebuild to the MSY level if fished at the maximum rate allowable under § 600.310(d)(2)(i), even though the Magnuson-Stevens Act states clearly that the rebuilding period for an overfished stock or stock complex must be as short as possible, taking into account the status and biology of the stock or stock complex, the needs of fishing communities, recommendations by international organizations in which the United States participates, and the interaction of the overfished stock or stock complex within the marine ecosystem.

*Response.* No change was made. The statutory timeframe for rebuilding is clearly a binding constraint on Council actions undertaken to rebuild a stock or stock complex that is overfished. No provision of the guidelines can, or is intended to, override the statutory language. The subject of § 600.310(d)(2)(ii), the minimum stock size threshold, is distinctly different from the subject of § 600.310(e)(4)(ii), the acceptable timeframe for rebuilding an overfished stock or stock complex. The former describes how to tell whether a stock or stock complex is overfished, while the latter describes what to do if a stock or stock complex is overfished.

*Comment 9.* Several commenters asked that the guidelines contain an explicit interpretation of the statutory description of the time period for

rebuilding summarized in § 600.310(e)(4)(ii) of the proposed rule.

*Response.* NMFS agrees; this request was a primary reason the comment period was reopened. As described under Changes from the Proposed Rule, § 600.310(e)(4)(ii) has been substantially revised to interpret the statutory provision.

*Comment 10.* One commenter stated that the biology of the stock does not dictate a rebuilding period of more than 10 years unless recovery is impossible in the absence of all fishing mortality.

*Response.* The starting point in structuring a rebuilding program is the length of time it would take a stock to recover if fishing mortality ceased. That a stock is long-lived, or reproduces slowly, does not necessarily mean that it could not be rebuilt within 10 years. The initial relevant inquiry is the no-fishing mortality period. If it is less than 10 years, factors such as the needs of fishing communities may justify lengthening the schedule to 10 years. If the no-mortality period is longer than 10 years, the schedule can also be adjusted, relying on those factors, up to a limit based on the stock's life-history characteristics.

*Comment 11.* A number of commenters preferred the first option offered in the notice reopening the comment period. They believed the rebuilding period should not be indeterminate. For stocks that cannot be rebuilt within 10 years, even in the absence of fishing mortality, the commenters thought the factors in section 304(e)(4)(A)(i) of the Magnuson-Stevens Act should not be used to extend the rebuilding period.

*Response.* NMFS agrees that the rebuilding period should not be indeterminate. For stocks that will take more than 10 years to rebuild, the guidelines impose an outside limit that is objective, measurable, and linked to the biology of the particular species. While the statutory language is subject to more than one interpretation, NMFS believes the factors in section 304(e)(4)(A)(i) may be used to extend the rebuilding period, whether the no-fishing mortality period is shorter or longer than 10 years.

*Comment 12.* Two commenters argued that "as short as possible" means the time period should not be allowed to stretch to 10 years for stocks that could be rebuilt more quickly.

*Response.* The guidelines allow a rebuilding program to extend to 10 years, but only when the Council can justify that the needs of fishing communities or other factors in section 304(e)(4)(A)(i) of the Magnuson-Stevens

Act outweigh the imperative to rebuild the stock as quickly as possible.

*Comment 13.* Other commenters stated the outer limit should be "reasonable," perhaps based on life-history characteristics. Proposals included 10 years plus one reproduction cycle; one generation time; and the no-fishing mortality period plus a period linked to fishing mortality levels that will not prevent steady rebuilding. Some commenters believed that Congress did not intend for many fisheries to be closed if they could not be rebuilt within 10 years; rather, a reduced level of fishing should be allowed.

*Response.* The guidelines strike a balance between the Congressional directive to rebuild stocks as quickly as possible, and the desire, expressed in national standard 8, to minimize adverse economic effects on fishing communities. For stocks that cannot be rebuilt within 10 years, the guideline allows flexibility in setting the rebuilding schedule beyond the no-fishing mortality period, but places a reasonable, species-specific cap on that flexibility by limiting the extension to one mean generation time. Reduced fishing mortality that result in steady increases in the biomass are acceptable, if rebuilding goals can be met within the timeframe specified in the guideline.

*Comment 14.* A few commenters thought there should be no upper limit on the rebuilding period, and that the length of a rebuilding schedule should be left to Council discretion.

*Response.* Congress chose 10 years as the upper limit for the rebuilding period for most stocks; the exceptions in section 304(e)(4)(A)(ii) of the Magnuson-Stevens Act are narrow. For stocks that fall within the exceptions, the mandate that they be rebuilt in "as short as possible" a period indicates the need for a definite, measurable bound on the rebuilding schedule. The Congressional intent is very clear, that the previous practice of unlimited discretion in rebuilding stocks must be changed.

*Comment 15.* Several commenters suggested that stocks whose rebuilding would not be affected by the cessation of fishing mortality should be exempt from the provisions of section 304(e)(4) of the Magnuson-Stevens Act.

*Response.* NMFS understands that factors other than fishing mortality confound and handicap rebuilding efforts for some stocks, but can find no basis in the statute for exempting such stocks from the rebuilding requirement. (See also the response to comment 18 under national standard 1). The flexibility introduced in the rebuilding and mixed-stock provisions of the

guidelines should assist in management of these stocks.

*Comment 16.* Two commenters suggested that the guidelines contain an explicit description of the starting point for the rebuilding period.

*Response.* Section 600.310(e)(4)(ii) has been revised to indicate that the rebuilding period commences as soon as the first measures in a new or revised rebuilding program are implemented.

*Comment 17.* Two letters of comment raised concern that rebuilding programs may not be adopted until the year 2000 due to delays in approving new overfishing definitions and the submission of rebuilding programs based on those definitions. The commenters believe that new overfishing definitions and rebuilding programs in accordance with those programs should be submitted by October 11, 1998.

*Response.* NMFS agrees that rebuilding programs may be delayed beyond the year 2000, given the schedules established by the SFA, but will work with the Councils to implement revised definitions of overfishing and rebuilding plans as soon as possible. NMFS has clearly communicated to the Councils that section 108(b) of the SFA requires them to amend their FMPs not later than 24 months after enactment of the SFA (October 11, 1996) to bring them into conformance with the provisions of sections 303(a)(1), (5), (7) and (9)-(14) of the Magnuson-Stevens Act. Section 303(a)(10) specifically requires the specification of objective and measurable criteria for identifying when the fishery to which the FMP applies is overfished, and section 304(e) requires the submission of rebuilding plans for stocks that are determined to be overfished.

On September 30, 1997, NMFS submitted a report to Congress that identified those stocks in their areas of jurisdiction that are overfished or approaching an overfished condition, based on existing overfishing definitions, as required by the Magnuson-Stevens Act. The Councils were notified that they have 1 year within which to submit rebuilding programs for those stocks identified as overfished. Therefore, the Councils are to be simultaneously working on both new definitions of overfishing and rebuilding plans, as necessary. As new overfishing definitions are approved, the status of stocks will need to be reassessed against those new criteria. It is likely that some stocks that were not listed as overfished when judged against the overfishing definitions in place in September 1997 will be determined to

be overfished when compared to the criteria in new definitions. If and when that occurs, NMFS will notify the affected Council(s) and the public of that fact and the Council(s) will have 1 year from that date in which to submit a rebuilding plan.

*Comment 18.* Two commenters suggested that the guidelines elaborate on the relationship between environment/habitat and the specified time period for rebuilding. In particular, the commenters wondered what is meant by the term "environmental conditions," whether remedial action would still be required in the event that environmental conditions cause the minimum possible rebuilding time to exceed 10 years, whether MSY should be re-estimated if habitat capacity changes, and, if so, whether remedial action could appropriately address habitat issues as well as fishing mortality.

*Response.* Except for a slight revision to § 600.310(d)(4)(iii), as described below, no change was made. "Environmental conditions" means those biological or physical components of the marine ecosystem with which the overfished stock or stock complex interacts (also see revised § 600.310(e)(4)(ii)). Council action is required whenever a stock or stock complex is determined to be overfished, regardless of whether it is possible to achieve rebuilding within 10 years. Regarding MSY, it is clear from the definition in § 600.310(c)(1)(i) that MSY is conditional on the state of the environment, which includes habitat. As noted in § 600.310(d)(4)(ii), environmental changes that affect the long-term productive capacity of the stock or stock complex require re-specification of one or more status determination criteria. As noted in § 600.310(d)(4)(iii), Councils should recommend restoration of habitat in cases where manmade environmental changes are partially responsible for a stock or stock complex being in an overfished condition. In addition, § 600.310(d)(4)(iii) has been revised to reference the Councils' responsibilities in cases where essential fish habitat is concerned.

*Comment 19.* Several commenters objected to the proposed requirement that each FMP specify, to the extent possible, both a maximum fishing mortality threshold and a minimum stock size threshold for each stock or stock complex covered by that FMP (§ 600.310(d)(2)).

*Response.* No change was made. Section 303(a)(10) of the Magnuson-Stevens Act requires the specification of status determination criteria, and

sections 304(e)(1) and 304(e)(2) state that these criteria are to be used for the purpose of determining which fisheries are in need of action "to end overfishing" and "to rebuild affected stocks of fish." The only way that both needs ("end overfishing" and "rebuild affected stocks") can be addressed is if the status determination criteria include measures appropriate to each—namely, one measure pertaining to the rate of fishing mortality and another measure pertaining to the size of the stock. That is, if only a maximum fishing mortality threshold were specified, it would be possible to determine which fisheries require action to end overfishing, but it would not be possible to determine which fisheries require action to rebuild affected stocks. Conversely, if only a minimum stock size threshold were specified, it would be possible to determine which fisheries require action to rebuild affected stocks, but it would not be possible to determine which fisheries require action to end overfishing.

*Comment 20.* Several commenters objected to the proposed provision in § 600.310(d)(2)(ii) that would allow the minimum stock size to be as low as 50 percent of the MSY stock size, conditional on an appropriate choice of MSY control rule. These commenters felt uniformly that Congress intended for any stock or stock complex below its MSY level to be considered overfished, and suggested that a stock size threshold be set at 80 percent (one commenter said "at or above 80 percent") of the MSY stock size. The commenters were divided over whether this reference point should constitute a minimum threshold or an "interim" threshold, where an interim threshold was defined as a point that "should trigger a review of what remedial action is necessary to prevent the decline from continuing."

*Response.* No change was made. A key question is whether Congress intended for each stock or stock complex that temporarily falls below its MSY level to be considered overfished, even if the rate of fishing mortality on that stock or stock complex has consistently been within the limit allowed by the MSY control rule. If the answer is "yes," then any threshold below the MSY stock size is unacceptable: For example, a threshold set at 80 percent of the MSY stock size is just as unacceptable as one set at 50 percent of the MSY stock size. However, NMFS believes it is important to remember that natural variability is an inherent part of fishery systems, and that any stock or stock complex managed for MSY will sooner or later



fall below its MSY level, though only temporarily.

Because the Magnuson-Stevens Act explicitly allows OY to be as high as MSY, NMFS believes that Congress must have intended to allow stocks to be managed such that stocks were capable of producing MSY, meaning that Congress must have been willing to accept the consequence that some stocks would fall below their respective MSY producing levels temporarily. Given this interpretation, the question becomes, "How low is too low?" While the fishery science literature does not provide a definitive answer to this question, NMFS believes that a prudent rule can be established as follows: Two of the best known models in the fishery science literature find that, on average, the stock size at MSY is approximately 40 percent of the stock size that would be obtained if fishing mortality were zero (the pristine level). (The actual values are 36.8 percent (Gompertz-Fox model) and 50 percent (Verhulst-Schaefer model). Also, the fishery science literature contains several suggestions to the effect that any stock size below about 20 percent of the pristine level should be cause for serious concern. In other words, a stock's capacity to produce MSY on a continuing basis may be jeopardized if it falls below a threshold of about one-fifth the pristine level. Expressing this threshold in terms of the stock size at MSY results in a minimum stock size threshold equal to 50 percent of the MSY level. A stock at 50 percent of its MSY level would typically be close to 20 percent of its pristine level, a threshold below which it must not be allowed to fall.

Of course, the guidelines do not prohibit the Councils from setting as many "interim" stock size thresholds as they like, so long as these are above the minimum stock size threshold. However, it would be a mistake for the guidelines to require use of an interim stock size threshold set at 80 percent of the MSY level in all cases, insofar as some stocks may be incapable of rebuilding to the MSY level from such a threshold within the statutory time period, depending on the status and biology of the stock, the stock's interactions with other components of the marine ecosystem, and the choice of MSY control rule.

*Comment 21.* Several commenters suggested that the guidelines contain an explicit prohibition against "short-term" or "pulse" overfishing.

*Response.* No change was made. Taken together, § 600.310(d)(2)(i), (e)(3), and (e)(3)(i) already indicate that exceeding the maximum fishing

mortality threshold for even a single year is not permissible, except as provided under § 600.310(d)(6). If "short-term" or "pulse" overfishing means that the maximum fishing mortality threshold would be exceeded for a period of at least 1 year, then the guidelines clearly prohibit these practices.

*Comment 22.* Two commenters suggested that the minimum stock size threshold should always be set equal to the MSY stock size. However, one of these commenters further suggested that it should be permissible for a stock or stock complex to fall slightly below its minimum stock size threshold on an occasional basis without being considered overfished.

*Response.* No change was made. Setting the minimum stock size threshold equal to the rebuilding target means that natural variability will frequently cause stocks to be classified as "overfished," even if no overfishing ever occurs. The suggestion to permit occasional, slight violations of the minimum stock size threshold would require establishing criteria for determining the acceptable rate and extent of threshold violation, which would undoubtedly be a problematic exercise.

*Comment 23.* Several commenters suggested that the guidelines should incorporate, to the maximum extent possible, recent strides made in the application of the precautionary approach, such as those contained in the United Nations Treaty on Straddling Stocks and Highly Migratory Species.

*Response.* No change was made. The guidelines are already very much in step with, and in some cases ahead of, recent strides made in the application of the precautionary approach in the international arena. In addition, as noted in the preamble of the proposed rule, further technical guidance regarding specification of a precautionary approach will be provided by NMFS in the near future.

*Comment 24.* One commenter suggested that the guidelines should require all MSY estimates (both point estimates and ranges) and OY specifications (both single values and ranges) to be accompanied by confidence intervals, which the commenter felt to be a basic component of a risk-averse approach. The commenter suggested that such confidence intervals could be qualitative in nature, if necessary.

*Response.* No change was made. NMFS agrees that a risk-averse approach is highly desirable, both for estimation of MSY and for specification of OY, but does not believe that requiring

confidence intervals for these quantities is necessarily the best or only way to implement such an approach. For example, if point estimates are determined in an explicitly risk-averse manner, the addition of confidence intervals could prove more confusing than helpful, especially to a nontechnical audience. However, in those cases where Councils feel that confidence intervals would be helpful, § 600.310(c)(2)(ii) already gives the Councils explicit latitude to use them. The same paragraph also requires that appropriate consideration of risk be incorporated into estimates of MSY, while § 600.310(f)(5)(iii) states that criteria used to set target catch levels (such as OY) should be explicitly risk averse, so that greater uncertainty regarding the status or productive capacity of a stock or stock complex corresponds to greater caution in setting target catch levels.

*Comment 25.* One commenter suggested that a precautionary approach is not appropriate for a management target such as OY.

*Response.* No change was made. Contrary to this comment, NMFS believes a precautionary approach is particularly appropriate for a management target such as OY. If management is effective, harvests will typically be close to the target level, so if the precautionary approach is to have a substantial impact on fishery management, it needs to be applied to management targets at least as much as to management thresholds.

*Comment 26.* One commenter suggested that the description of the precautionary approach should state that lack of information should not prevent a Council from taking reasonable steps to address fishery resource problems.

*Response.* No change was made. This suggestion is already implicit in § 600.310(f)(5)(iii), which states that greater uncertainty (i.e., greater lack of information) should correspond to greater caution in setting target catch levels. NMFS believes that prudent decision-making in the face of uncertainty is a cornerstone of any precautionary approach.

*Comment 27.* Two commenters expressed concern over the target stock size for rebuilding. One commenter suggested that the target should be the OY stock size and felt that the guidelines erred in treating the MSY stock size as though it were the target. The other commenter suggested that the target ought to be the MSY stock size and felt that the guidelines erred in treating the MSY stock size as though it were a threshold.

*Response.* The Magnuson-Stevens Act, in section 3(28)(C), implies strongly that the MSY stock size is at least an initial target for rebuilding. Of course, to the extent that OY is lower than MSY and that management is generally successful in achieving OY on a continuing basis, the OY stock size will be greater than the MSY stock size; thus the ultimate target level (OY stock size) will be greater than the initial target level (MSY stock size). The guidelines are consistent in treating the MSY stock size as a constraint rather than as a threshold.

*Comment 28.* Several commenters suggested that the method for calculating rebuilding time requires clarification. Assuming that some sort of estimation is involved in calculating rebuilding time, a number of possibilities present themselves. Does "rebuilding time" refer to the expected rebuilding time, the median rebuilding time, some percentile of rebuilding times, or something else?

*Response.* No change was made. The commenters are correct that there are a large number of ways to calculate rebuilding time. In addition to statistics pertaining to the time required to reach some specified stock size, other possibilities include various statistics pertaining to the stock size achieved at some specified future time—for example, the expected stock size, the median stock size, or some percentile of stock sizes. While these choices pose potentially substantive issues, NMFS believes there are a number of reasonable ways to calculate rebuilding time that would be consistent with the provisions of the national standard 1 guidelines. It is beyond the scope of these guidelines to establish a single method to be used in all cases. However, it is possible that the forthcoming technical guidance regarding the precautionary approach (as described in the preamble to the proposed rule) could address these issues.

*Comment 29.* One commenter suggested that the maximum fishing mortality threshold should be greater than the fishing mortality rate associated with the chosen MSY control rule. The commenter noted that this would be consistent with the approach taken by Rosenberg *et al.* (1994) (see preamble to the proposed rule).

*Response.* No change was made. The commenter is correct insofar as the report by Rosenberg *et al.* (1994) interpreted the former Magnuson Act as taking overfishing to be a rate of fishing mortality somewhat greater than the rate associated with any MSY control rule. However, it is clear that the Magnuson-

Stevens Act takes a different, more conservative, approach by linking overfishing much more directly to MSY. Allowing the maximum fishing mortality threshold to exceed the fishing mortality rate associated with the MSY control rule would thus be inconsistent with the Magnuson-Stevens Act.

*Comment 30.* One commenter felt that the proposed procedural requirements for interim measures in § 600.310(e)(5) are too burdensome. The commenter stated that, under the proposed guidelines, the Councils would essentially have to develop the same measures as part on an FMP or amendment for implementation on a more permanent basis, before recommending the measures as interim measures. Instead, the Councils should be allowed to recommend an interim action whenever there is a substantial conservation benefit to be gained.

*Response.* No change was made. NMFS agrees that actions to address overfishing should not be constrained unnecessarily. Section 304(e)(6) of the Magnuson-Stevens Act states that interim measures can be requested by a Council during its development of an FMP, an FMP amendment, or proposed regulations to address overfishing as required under section 304(e), until such measures can be replaced by such FMP, amendment, or regulations. Section 305(c)(3)(B) of the Magnuson-Stevens Act establishes time constraints on interim actions and makes extensions contingent upon the Council's actively preparing an FMP, FMP amendment, or proposed regulations to address overfishing on a permanent basis. Section 600.310(e)(6) of the guidelines reflects these statutory requirements.

*Comment 31.* One commenter objected to statements in § 600.310(f)(1)(ii) and (f)(5)(i) to the effect that OY cannot be achieved on a continuing basis if status determination criteria are not met. The commenter contended that the purpose of the status determination criteria is to measure FMP performance, not to control fishing, and that the present wording of the guidelines might preclude a Council from taking a gradual approach toward bringing fishing mortality into conformity with the maximum fishing mortality threshold.

*Response.* No change was made. NMFS believes that status determination criteria are indeed intended to control fishing. The commenter is correct insofar as the guidelines would preclude a Council from taking a gradual approach toward bringing fishing mortality into conformity with the maximum fishing

mortality threshold. Once a Council is notified that overfishing is occurring, it must take action within 1 year to end overfishing. A gradual approach is not permitted.

*Comment 32.* One commenter suggested that the guidelines should include a clear statement to the effect that, whenever overfishing is occurring, remedial action is required.

*Response.* No change was made. The statement already appears in § 600.310(e)(3)(i).

*Comment 33.* One commenter suggested that the guidelines should encourage adoption of target harvest levels set safely below MSY.

*Response.* No change was made. The statement already appears in § 600.310(f)(5)(i).

*Comment 34.* Several commenters suggested that § 600.310(f)(2)(i) and (f)(2)(ii) under emphasized the benefits to the Nation accruing from food production relative to those accruing from recreational opportunities. Two commenters suggested that contributions to the surrounding economies ought to be listed as a benefit accruing from food production, as well as from recreational opportunities. One commenter suggested that the guidelines seemed to equate recreational fishing with non-consumptive use and commercial fishing with consumptive use, giving the impression that recreational fishing does not contribute to food production. One commenter was concerned regarding the vague nature of the "other non-consumptive activities" that were suggested to be "important to the national, regional, and local economies" in § 600.310(f)(2)(ii).

*Response.* Sections 600.310(f)(2)(i) and (f)(2)(ii) have been revised. NMFS believes that neither the benefits to the Nation accruing from food production nor those accruing from recreational opportunities should be under emphasized. Contributions to the national, regional, and local economies are now listed as benefits accruing from both food production and recreational opportunities. Contrary to one of the comments cited, the proposed rule explicitly acknowledged the contribution of recreational fishing to food production; this acknowledgment is retained in the revised language. The non-specific reference to "other non-consumptive activities" has been deleted from § 600.310(f)(2)(ii), insofar as this paragraph is not intended to provide an exhaustive list of non-consumptive uses.

*Comment 35.* Several commenters disagreed with the proposed guidelines' allowance of an exception to the requirement of preventing overfishing,

in the case of one stock component of a mixed-stock fishery. They said that the legislative history of the SFA supports elimination of this exception, and challenged NMFS' authority to retain it.

*Response.* The legislative history of the SFA does not directly address this issue. The statute defines "overfishing" and "overfished" in terms of the capacity of a fishery to produce MSY. National standard 1 requires conservation and management measures to prevent overfishing while achieving the OY from each fishery. Section 304(e) of the Magnuson-Stevens Act requires the Secretary to identify fisheries that are being overfished. The Council must then take steps to end overfishing in the fishery.

A "fishery" is defined in the Magnuson-Stevens Act as "one or more stocks of fish which can be treated as a unit for purposes of conservation and management." In a mixed-stock fishery, several stocks are harvested together and are managed as a unit. From the SFA's focus on "fisheries," and the fact that it did not amend national standard 1, NMFS infers that Congress did not mean to eliminate entirely the long-standing practice of allowing a mixed-stock fishery to continue, if certain conditions specified in the guidelines were met.

To respond to concerns that this exception might become a huge loophole, the proposed guidelines considerably narrowed this exception from the existing guidelines. To allow overfishing of one stock in a mixed-stock fishery, a Council must meet three stringent conditions: (1) It must demonstrate by analysis that the action will result in long-term net benefits to the Nation; (2) it must demonstrate by analysis that a similar level of benefits cannot be achieved by modifying fleet behavior, gear selection or configuration, or other technical characteristic so that no overfishing would occur; and (3) it must ensure that the action will not cause any species or evolutionarily significant unit thereof to require protection under the Endangered Species Act.

The exceptions for mixed-stock fisheries have thus been significantly constrained by requiring that (1) demonstrated net benefits to the Nation be long-term, rather than short-term; (2) an analysis be performed to consider technical or operational alternatives to overfishing; and (3) the stock or stock complex not be driven to a dangerously low level.

NMFS believes the guidelines strike the correct balance between preventing a stock from becoming overfished and achieving OY for the fishery as a whole.

*Comment 36.* The notice reopening the comment period asked whether overfishing evaluations and rebuilding programs should be focused on individual stocks, or on a fishery. In response, many commenters pointed out that a stock-by-stock approach is the only scientifically justified method. Overlooking the condition of each stock is also inconsistent with Congressional intent to rebuild all fishery resources. Other commenters wanted to focus on fisheries, as part of an ecosystem approach to management. A mixed stock fishery should be managed as a unit, and should not be closed just because one component of the fishery is overfished.

*Response.* A fishery comprised of many stocks cannot be judged as overfished or not; only for a stock or stock complex of fish can measurable, objective criteria of overfishing be established, as required by the SFA. The same concern applies to judging whether a fishery has been rebuilt; biologically, that can be determined only on a stock or stock complex basis. The Secretary's first report to Congress (September 30, 1997, under section 304(e)) identified stocks, not fisheries, as overfished.

Focusing on stocks as a scientific endeavor is not inconsistent with managing a fishery as a unit. As explained in the response to comment 35 under national standard 1, identification of a stock as overfished does not necessarily mean that the entire fishery in which it occurs must be severely constrained while that stock is rebuilt. Scientific judgments on overfishing and rebuilding must be made, to the extent practicable, on a stock-by-stock basis, but management judgments on optimizing benefits can be made on the fishery as a whole. In other words, managers should be aware of the biological status of each stock, and should also be required to justify the continuation of overfishing of a stock in a mixed-stock fishery on the grounds of maximizing benefits.

*Comment 37.* One commenter suggested that a discussion of "acceptable biological catch" (ABC) be included in the guidelines, as in the 1989 version. The commenter felt that ABC is used by most, if not all, of the Councils and in many FMPs.

*Response.* No change was made. NMFS believes that ABC, as typically used, is an example of the "annual target harvest levels that vary with stock size" described in § 600.310(f)(4)(ii). Given that the term "acceptable biological catch" does not appear in the Magnuson-Stevens Act (although "allowable biological catch" is used

once, without definition, in section 303(b)(11)), NMFS does not believe that it is necessary to reference this additional term by name in the guidelines.

*Comment 38.* One commenter objected to specifying minimum stock size threshold as a function of MSY stock size, as in § 600.310(d)(2)(ii). The commenter was concerned that extreme changes in environmental conditions could lead to extreme changes in carrying capacity and could result in a mismatch between the minimum stock size threshold and the stock's new productive capacity.

*Response.* No change was made. Section 600.310(d)(4)(ii) requires that status determination criteria be respecified if changes in environmental conditions cause the long-term productive capacity of the stock or stock complex to change. (See also the response to comment 18 for national standard 1).

*Comment 39.* One commenter objected to the statement in § 600.310(f)(5)(i) that continual harvest at a level above OY would violate national standard 1, even if no overfishing resulted. The commenter felt that it is both physically and fiscally impossible to assure that quotas are not systematically exceeded.

*Response.* No change was made. NMFS believes that the national standard 1 mandate for "achieving, on a continuing basis, the OY from each fishery" should not be interpreted to mean, "achieving, on a continuing basis, the OY or some greater amount of harvest from each fishery." By definition, MSY is the greatest amount of harvest that could be achieved from a fishery on a continuing basis. Presumably, the reason that the Magnuson-Stevens Act makes explicit provision for setting OY at a level below MSY is that, where justified on the basis of relevant economic, social, or ecological factors, continual harvest at a higher level (such as MSY) is to be avoided. NMFS' experience has been that it is indeed possible to assure that quotas are not systematically exceeded. If, however, a Council finds that a systematic amount of harvest overrun is inevitable, quotas should be reduced by that amount.

*Comment 40.* Several commenters suggested that the guidelines list examples of management actions required under a variety of fishing mortality rates and stock sizes.

*Response.* No change was made. NMFS believes there are so many variables and contingencies specific to each fishery that it would not be meaningful to list examples of the type

requested. In general, though, it is clear that a Council's primary control will be over fishing mortality. If the fishing mortality rate on a stock or stock complex exceeds the maximum fishing mortality threshold, it must be reduced to the extent that it no longer exceeds that threshold, as described in § 600.310(e)(3)(i) and (e)(4)(i). If a stock or stock complex is overfished, fishing mortality must be controlled such that the stock rebuilds to the MSY level within a time period satisfying the statutory requirements, as described in § 600.310(e)(3)(ii) and (e)(4)(ii).

*Comment 41.* In discussing fisheries that have large state components, one commenter said that states will have to cooperate to achieve the SFA's rebuilding objectives. He recommended that the possibility of preempting a state's authority over a fishery in its waters be specified in the guidelines.

*Response.* The criteria and procedures for Federal preemption of state authority are set out in section 306(b) of the Magnuson-Stevens Act. In addition, NMFS would also comply with applicable requirements of Pub. L. 104-4, the Unfunded Mandates Reform Act of 1995, and E.O. 12612, Federalism. NMFS sees no reason to reiterate these requirements in the guidelines, but agrees that consultation and state cooperation will be essential in meeting rebuilding schedules for some fisheries.

*Comment 42.* One commenter stated that the guidelines should clearly point out that the SFA imposes the obligation to establish a strong domestic plan to rebuild stocks, within 10 years if biologically possible, and that obligation applies to international as well as domestic fisheries.

*Response.* NMFS agrees that the obligation to establish a strong domestic plan to rebuild stocks, within 10 years if biologically possible, is a requirement of the SFA, regardless of the species involved. The guidelines, as proposed, reflect this view. There is no exception provided in the guidelines for any species or fishery beyond that provided in the SFA (section 304(e)(4)(C)). NMFS notes that the SFA requires that any rebuilding program for fisheries managed under an international agreement must reflect traditional participation in the fishery, relative to other nations, by fishermen of the United States. NMFS does not agree that additional clarifying language is necessary in the guidelines.

*Comment 43.* With respect to highly migratory species such as tunas and billfish, one commenter believed expressions of yield and overfishing are meaningless on local scales. The commenter questioned what is required

of the Councils and what the limits of authority are regarding ending overfishing and rebuilding overfished stocks in areas where the majority of the exclusive economic zone (EEZ) stock/fishery occurs in state waters (e.g., onaga) or in international waters (e.g., armorhead) where no agreements exist.

*Response.* The Councils have the responsibility under SFA to do all they can to eliminate overfishing and to rebuild overfished stocks. The Councils are limited in their authority and their ability to correct overfishing in many cases. However, this limitation should not prevent the Councils from doing everything within their authority and capabilities to address overfishing. (See also the response to comment 33 under national standard 1.)

*Comment 44.* One commenter was concerned regarding NMFS' proposed requirement to implement regulations to end (or prevent) overfishing and to rebuild (or sustain) affected fish stocks that are considered to be overfished or approaching an overfished condition. The commenter objected to this provision's application to migratory fish stocks with international harvesters, especially when the majority of the harvest is taken by foreign fleets.

*Response:* The SFA provisions concerning overfishing and rebuilding migratory fish stocks are not restricted to those situations where the U.S. harvest is a majority of the total fishing mortality. The SFA does, however, recognize the international aspects of migratory species, and provides that the period for rebuilding may exceed 10 years if management measures under an international agreement so dictate. And, as noted in the response to comment 33 under national standard 1, the rebuilding program for fisheries managed under an international agreement must reflect traditional participation in the fishery, relative to other nations, by fishermen of the United States. The guidelines reflect these provisions of the SFA.

*Comment 45.* One commenter said the proposed rule states that all fishing mortality must be counted against OY, including that resulting from bycatch, research fishing, and any other fishing activities, although the Magnuson-Stevens Act (section 3(15)) defines fishing in a way that does not include scientific research activity that is conducted by a scientific research vessel.

*Response.* The proposed guidelines have been revised to reflect the fact that the term "fishing" does not include any scientific research activity that is conducted by a scientific research vessel. In § 600.310(f)(4)(iii), the words

"research fishing" have been changed to "scientific research." However, the fishing mortality that occurs during scientific research requires estimation and inclusion in the accounting of all harvesting mortality to which stocks are subjected.

*Comment 46.* One commenter stated that overfishing criteria do not provide any explicit treatment for hatchery stocks. The commenter assumed that hatchery stocks cannot be aggregated with wild stocks for the purposes of establishing overfishing criteria.

*Response.* NMFS agrees with the commenter's assumption that hatchery stocks cannot be aggregated with wild stocks for purposes of establishing overfishing criteria.

#### National Standard 2

*Comment 1.* One commenter suggested that NMFS should encourage the policy that fisheries management must be based on scientific facts.

*Response.* NMFS agrees, and recognizes that additional factors, such as social and economic impacts, must be taken into consideration in formulating management measures.

*Comment 2.* One commenter stated that the guidelines for national 2 should expressly address data on bycatch and safety.

*Response.* NMFS agrees and has amended § 600.315(e)(1)(ii) to include safety. That section already includes a reference to bycatch.

*Comment 3.* One commenter stated that data reporting requirements in national standard 2 are too burdensome and will inhibit fisheries management.

*Response.* Section 301(a)(2) of the Magnuson-Stevens Act requires that conservation and management measures be based on the best scientific information available. The minimum information sets required in FMPs are described in section 303(a) and (b) of the Magnuson-Stevens Act. The guidance provided in § 600.315 summarizes those statutorily required minimum requirements. Moreover, the Paperwork Reduction Act requires NMFS to minimize the burden of its information collection by ensuring the information will have practical utility.

*Comment 4.* Two commenters suggested there should be more explicit guidance under national standard 2 regarding the data requirements related to fishing communities.

*Response.* NMFS agrees. The language in § 600.315(e)(1) introductory text has been revised to clarify that Stock Assessment and Fishery Evaluation (SAFE) reports are intended to summarize the most recent information

concerning a variety of aspects of the fishery, including fishing communities.

#### National Standard 4

*Comment 1.* One commenter suggested that the guidelines for national standard 4 should be modified by adding: "In all [FMPs] prepared by any Council in a limited access fishery, all permits must be treated equally and fairly."

*Response.* No change was made. The criteria that a Council must use in developing a limited access program are listed in the Magnuson-Stevens Act (section 303(b)(6)). National standard 4 requires that all allocations, including limited access permits, be handled fairly and equitably.

*Comment 2.* One commenter suggested that national standard 4 should contain a strict prohibition that prevents any one state (such as Alaska) from being granted (by any Council) monopoly control of fisheries management in Federal waters where fishermen from several states harvest under an approved FMP.

*Response.* The Magnuson-Stevens Act provides that a state may regulate a fishing vessel outside the boundaries of that state (section 306(a)(3)). However, management measures developed by a state pursuant to this authority may not discriminate between residents of different states. Mechanisms exist for ensuring that such authority does not result in unfair treatment. For example, two North Pacific Fishery Management Council FMPs that defer the majority of management authority to the State of Alaska (the crab and salmon FMPs) have mechanisms that provide for individuals to challenge the State's management actions.

*Comment 3.* One commenter stated that fishing sectors such as subsistence fishing and aboriginal people indigenous to the region should be added to the commercial, recreational, and charter fishing sections identified.

*Response.* No change was made. The Magnuson-Stevens Act already requires that all fishermen should be treated fairly and equitably.

#### National Standard 5

*Comment 1.* Several commenters stated that the guidelines do not adequately reflect the revision from "promoting economic efficiency" to "considering economic efficiency" in national standard 5, particularly in the use of the term "encouraging" relative to efficient utilization.

*Response.* NMFS agrees that the word "encouraging" should be replaced with "considering," to make this standard consistent with the intent of Congress;

§ 600.330(b)(1) has been revised accordingly. The reference to limited access systems is only an example of a program that may contribute to efficiency. No statements or references are made that limited access is a preferred alternative to increase efficiency.

*Comment 2.* One commenter stated that the use of the phrase "least cost to society" in the national standard 5 guideline is inappropriate, because achieving long-term benefits may require costs that are greater than the least available.

*Response.* The use of this phrase is similar to its use in the national standard 7 guideline, which refers to minimizing costs. The phrase does not mandate that the alternative with the lowest cost be selected. Rather, it is meant to provide guidance that efficient utilization of resources is a way to achieve benefits for the Nation, while limiting the costs to society. Analysis of alternative management measures, including those that would offer greater efficiency, are expected to estimate the relative benefits and costs of those measures.

#### National Standard 7

*Comment 1.* One commenter suggested that the Councils should be required to prepare an FMP for any fishery that has recreational and/or commercial catch.

*Response.* The Magnuson-Stevens Act did not impose such a requirement. The national standard guidelines do not excuse the Councils from developing FMPs that are necessary or appropriate. The guidelines prior to the SFA stated that an FMP should be prepared only for fisheries in need of management. NMFS believes no change is necessary, because requiring an FMP for every fishery could redirect critical funds needed for resource surveys, data collection, data or impact analyses, or other essential activities, but result in little or no incremental benefit to the Nation.

#### National Standard 8

*Comment 1.* One commenter stated that the definition of "fishing communities" needs to be amended to include all components of the recreational industry.

*Response.* No change was made. The definition of "fishing community" in the guidelines already includes recreational fishing or directly related fisheries-dependent services and industries.

*Comment 2.* One commenter stated that "sustained participation" referred to in this standard does not guarantee any specific rights, practices, or access

to a specific fishery. Two other commenters stated that the intent of Congress in reference to "sustained participation" was not to cause fishermen to change gear or species, particularly since some communities are dependent on specific gears and/or fisheries.

*Response.* No change was made. "Sustained participation" means continued access to the fishery within the constraints of the condition of the resource. This standard requires that the importance of fishery resources to a community be taken into account in conservation and management measures; however, the long-term conservation and/or rebuilding of stocks may require limits on particular gears and the harvest of specific stocks.

*Comment 3.* One commenter stated that proposed § 600.345(b)(2) captures the intent of Congress that this standard does not allocate resources to particular communities, while § 600.345(c)(3) has implicitly allocative language in its focus on "levels of dependence on and engagement in" the fishery.

*Response.* No change was made. The language in § 600.345(c)(3) reflects the meaning of the Magnuson-Stevens Act, which refers to communities being "substantially engaged" and "substantially dependent." The levels of dependence on and engagement in a fishery need to be ascertained in order to identify communities, whether located in rural or metropolitan areas, that may be potentially affected. Further, dependence, engagement, and sustained participation are not measured solely in terms of the percent of fishing activity in relation to the entire economic base of the community; there are other social, cultural, and economic assessments specifically focused on the harvesting, processing, and fishery-support industries.

*Comment 4.* One commenter stated that, in § 600.345(b) and (c), the definitions and explanations are so broad as to render them useless in identification of fishing communities.

*Response.* NMFS disagrees. The guidance reflects the language and intent of Congress to be inclusive of fishing communities. The definitions and explanations in § 600.345(b) and (c) are acceptable operational definitions for use by social scientists and economists in undertaking data gathering and analysis.

*Comment 5.* One commenter stated that, in § 600.345, all components of the recreational fishing industry in fishing communities should be described and analyzed in the same manner and depth as commercial fishery components.

*Response.* NMFS agrees. The guidance in the national standard guidelines covers all sectors.

#### National Standard 9

*Comment 1.* Several commenters stated that the guidelines as written diverged significantly from the statute and Congressional intent and require a substantial rewriting. One commenter was concerned that the Councils would not have to take action to amend their FMPs to minimize bycatch and would still be found to be in compliance with national standard 9.

*Response.* NMFS disagrees. The Councils and NMFS must review all existing FMPs and all future FMPs and FMP amendments for compliance with national standard 9. Existing FMPs will be amended, if necessary, to ensure compliance with this standard. The Councils are required to re-examine the conservation and management measures contained in their FMPs for ways to reduce bycatch below current levels. In addition, the Councils must revisit the measures periodically to ensure that bycatch is reduced as much as practicable. No change in the guidelines is necessary.

*Comment 2.* Several commenters stated that the SFA sent a very clear message that bycatch is a serious problem and that the Councils are required not to study the problem, as suggested in the proposed guidelines, but to amend FMPs to include measures to "minimize bycatch and to minimize the mortality of such bycatch that cannot be avoided."

*Response.* NMFS agrees that bycatch is a problem in many of the Nation's fisheries. The amendments to the Magnuson-Stevens Act require that conservation and management measures minimize bycatch to the extent practicable and, to the extent bycatch cannot be avoided, minimize the mortality of such bycatch. The requirement is clearly not discretionary. NMFS disagrees that the guidelines only require the Councils to study the bycatch problem; the Councils must take action to minimize bycatch and bycatch mortality to the extent practicable. No change in the guideline is necessary (also see the response to comment 1 under national standard 9).

*Comment 3.* Several commenters observed that national standard 9 recognizes bycatch as an integral component of the total fishery, with biological if not economic value. The commenter stated that this national standard encourages the redeployment, or perhaps the elimination, of destructive, non-selective gears.

*Response:* NMFS agrees. The Councils have a range of options available to them to satisfy the requirements of national standard 9; the commenter mentioned only two of the options available. However, the legislative history of the SFA includes a floor statement by Congressman Young that "it is not the intent of Congress that the [Councils] ban a type of fishing gear or a type of fishing in order to comply with this standard."

*Comment 4.* One commenter observed that national standard 9 applies not only to commercially valuable species, but also to all finfish, shellfish, and invertebrate species with no commercial value.

*Response.* NMFS agrees. The definition of "fish" in the Magnuson-Stevens Act includes finfish, shellfish, and invertebrate species, and all other forms of marine animal and plant life except marine mammals and birds; by extension, bycatch applies to these forms of marine life.

*Comment 5.* One commenter stated that the guidelines are not clear on exactly what is required for compliance with this national standard and what the consequences would be of not meeting that requirement. The commenter also suggested that such requirements would likely not be followed because they are too time/staff/data intensive. Another commenter stated that the guidelines suggest that measures to minimize bycatch need not be implemented if they are determined to be "inconvenient" with respect to, for example, "changes in fishing, processing, disposal, or marketing costs," or "changes in fishing practices and the behavior of fishermen."

*Response.* The Secretary is required to ensure that all FMPs are in compliance with the national standards. FMPs or FMP amendments that are not in compliance will not be approved. Inconvenience is not an excuse; bycatch must be avoided as much as practicable, and bycatch mortality must be reduced until further reductions are not practicable. Adherence to the national standards is not discretionary.

*Comment 6.* One commenter suggested that, in the definition of bycatch in § 600.350(c), NMFS strike the parenthetical in the definition of bycatch and the phrase, "or that enter commerce through sale, barter, or trade."

*Response.* The language in § 600.350(c) is consistent with the Magnuson-Stevens Act; commercial fishing, as defined in section 3(4), "means fishing in which the fish harvested, either in whole or in part, are intended to enter commerce or enter

commerce through sale, barter or trade." While the term "sale" is inclusive of barter and trade, the phrase has been kept in the guidelines to ensure that there is no ambiguity as to what is considered bycatch. NMFS believes the parenthetical in the definition of "bycatch" provides useful clarification of "harvested in a fishery." No change was made.

*Comment 7.* Several commenters recommended removing the definition of discard in proposed § 600.350(c)(2) because they believed the term was included by NMFS without support in the Magnuson-Stevens Act or its legislative history. They stated that the definition is in conflict with the law and allows the continuation of fishing methods and practices that involve great amounts of bycatch, like roe stripping and shark finning.

*Response.* The definition in § 600.350(c)(2) has been removed; however, NMFS has retained the interpretation that "bycatch" includes the discard of whole fish—not the discard of unwanted parts. Nothing in the definitions of "bycatch" or "economic discards" suggests that the discard of unwanted parts of fish is addressed accordingly (see the response to comment 12 under national standard 9 for a discussion of practices such as shark finning).

*Comment 8.* One commenter requested that NMFS add to the last sentence in the definition of bycatch in § 600.350(c) the words "or Atlantic highly migratory species harvested in a commercial fishery that are not regulatory discards and that are tagged and released alive under a scientific tag and release program established by the Secretary."

*Response.* NMFS agrees and has added the suggested language to § 600.350(c).

*Comment 9.* A commenter asked whether any fish caught and sold would be considered bycatch.

*Response.* According to the definition of bycatch in the Magnuson-Stevens Act, the sale of any fish removes it from being considered bycatch.

*Comment 10.* A commenter stated that fish that are ground up and thrown overboard are not counted as discards.

*Response.* NMFS disagrees. Whole fish that are ground up and thrown overboard would be considered bycatch.

*Comment 11.* One commenter suggested that, in § 600.350(b), the second sentence be replaced with: "Bycatch can, in four ways, impede efforts to protect marine ecosystems, achieve sustainable fisheries and the full benefits that they provide to the Nation." The suggestion was also made

that the following sentence be added to § 600.350(b): "First, removing unknown amounts of commercial or non-commercial biomass as bycatch affects marine ecosystems in ways that are poorly understood at best."

*Response.* The first suggestion was adopted, because sustainable fisheries are predicated on healthy marine ecosystems. In addition, § 600.350(b) was revised to combine the concepts of increased uncertainty concerning total fishing related mortality and the impact of bycatch on other uses of fishery resources.

*Comment 12.* One commenter stated that portions of fish not used or retained (e.g., finned sharks) are incidental catch (and are therefore bycatch). Other commenters stated that sharks could be harvested for fins and discarded without being counted as discards.

*Response.* The Magnuson-Stevens Act does not define incidental catch; however, it defines "bycatch" as fish that are harvested in a fishery, but that are not sold or kept for personal use. The Magnuson-Stevens Act does not specify that the entire animal or plant must be sold or kept for personal use. This does not mean, however, that wasteful practices should not be of concern, nor that they may not be restricted by the Councils on some other basis. The issue of how much of a fish should be retained is a utilization issue, which is distinct from the bycatch issue.

*Comment 13.* One commenter stated that damaged and/or mutilated (e.g., shark-bitten) target species that are discarded are bycatch.

*Response.* NMFS agrees. Such fish are considered bycatch if they are not sold or kept for personal use.

*Comment 14.* Economic discards of target species, such as tunas during times of market surplus, including dumping of fish on land, are bycatch.

*Response.* NMFS agrees. Such discards are considered bycatch.

*Comment 15.* One commenter observed that the Magnuson-Stevens Act's definition of bycatch does not mention unobserved fishing mortality and recommended that the parenthetical inclusion of unobserved fishing mortality in the definition of bycatch in § 600.350(c) of the regulations should be removed.

*Response.* NMFS disagrees. The statute does not limit Council actions only to observed bycatch. Unobserved fishing-related mortality is implicitly included in the definition because it constitutes a harvest of fish that are not sold or kept for personal use. NMFS notes, however, that there is little information available on unobserved fishing-related mortality and believes

that primary emphasis should initially be placed on minimizing observed sources of fishing-related mortality.

*Comment 16.* One commenter noted that unobserved fishing-related mortality should be given prominence in the proposed guidelines.

*Response.* NMFS disagrees. Given the many sources of bycatch mortality, NMFS believes that unobserved fishing-related mortality is sufficiently prominent in the guidelines as proposed.

*Comment 17.* One commenter asked how NMFS will ever assign a poundage to unobserved mortality and what scientific basis will be used to determine unobserved mortality.

*Response.* NMFS recognizes that determining unobserved fishing mortality will be extremely difficult. However, all significant sources of fishing-related mortality need to be considered when developing conservation and management measures. While there are some existing technologies that could be used to estimate unobserved fishing mortality (e.g., video-based systems), new methods will need to be developed. This will involve an experimental process, including rigorous peer reviews of the results.

*Comment 18.* One commenter noted that the amount of discards by the recreational fishery has a significant impact on fish stocks.

*Response.* NMFS agrees. Discards by recreational anglers are considered to be bycatch unless they are specifically exempted in the Magnuson-Stevens Act. All mortality associated with recreationally caught fish must be considered in the determination of OY and MSY; this is addressed in the guidelines for national standard 1.

*Comment 19.* One commenter observed that fish released alive in recreational catch-and-release and tagging programs do die and should be counted as bycatch and against OY.

*Response.* NMFS agrees that all bycatch mortality and mortality attributable to exempted tagging and release programs should be considered in determination of OY. As noted in the response to comment 25 under national standard 9, the Magnuson-Stevens Act exempts only Atlantic highly migratory species harvested in a tag-and-release program established by the Secretary. This is further addressed in the guidelines to national standard 1.

*Comment 20.* One commenter stated that the SFA specifically excludes recreational catches from the requirements for bycatch reduction and avoidance. The commenter felt that a specific reference to the value of catch-

and-release fisheries under the guidelines to national standard 9 would be useful.

*Response.* NMFS disagrees. Fish caught and released alive under an approved catch-and-release fishery management program are exempt from being considered bycatch under section 3(2) of the Magnuson-Stevens Act (see also the response to comment 21 under national standard 9). Management regulations (e.g., minimum size limits and bag limits) that result in the release of fish by recreational anglers are not considered catch-and-release programs and, therefore, such catches are considered to be bycatch, even though the fish are released alive. Increased efforts to release recreationally caught fish in healthy condition may partially satisfy the requirement in national standard 9 that mortality of bycatch that cannot be avoided be minimized to the extent practicable.

*Comment 21.* One commenter asked what is meant by the exclusion of "fish released alive under a recreational catch-and-release fishery" under the bycatch definition.

*Response.* A definition of the term "catch-and-release fishery management program" has been added to Section 600.350(c) as follows: a catch-and-release fishery management program is one in which the retention of a particular species is prohibited. In such a program, those fish released alive would not be considered bycatch.

*Comment 22.* One commenter stated that highly migratory species in a commercial fishery managed by the Secretary that are tagged and released alive in the Atlantic are not considered bycatch. The same commenter asked whether the provision also extended to Pacific highly migratory species managed by the Western Pacific Council, and if not, why not?

*Response.* NMFS agrees that the Magnuson-Stevens Act specifically exempted fish caught in highly migratory species tag-and-release programs in the Atlantic from being considered bycatch. This exemption was not extended in the SFA to Pacific highly migratory programs. Therefore, fish tagged and released in highly migratory species tag-and-release programs in the Pacific are considered bycatch.

*Comment 23.* One commenter stated that definitions of bycatch as "catch which is not retained or utilized" and incidental catch as "catch which is retained in whole or part but not necessarily targeted," as adopted by the Western Pacific Fishery Management Council, are not consistent with the Magnuson-Stevens Act or with the

proposed national standard 9 guidelines.

*Response.* The Western Pacific Council's definition of "bycatch," though not identical, is not inconsistent with the new definition in the Magnuson-Stevens Act. The definition of "incidental catch" is not inconsistent with anything in the Act or the guidelines.

*Comment 24.* Several commenters disagreed with the following statement in the preamble to the proposed guideline: "Bycatch can be decreased either by decreasing the catch of fish that would be discarded or by retaining fish that would otherwise be discarded." They also stated that avoidance should take precedence over retention and that retention of bycatch fails both tiers of national standard 9 in that it neither avoids nor minimizes it.

*Response.* NMFS agrees that priority must first be given to avoiding bycatch to the extent possible. To the extent that it is not possible, priority must then be given to minimizing bycatch mortality. Any proposed conservation and management measure that does not give first priority to avoiding the capture of bycatch species must be supported by appropriate analyses, including determination of the net benefits to the Nation. Section 600.350(d) introductory text has been revised accordingly. Sections 313(i) and 405(d)(3) of the Magnuson-Stevens Act suggest that retention and utilization are viable solutions to some bycatch problems.

*Comment 25.* Several commenters stated that the proposed rule would make national standard 9 a discretionary option for the Councils by using the word "should" at the end of § 600.350(d). The commenters believed the proposed guidelines fail to require any Council to select and implement measures to minimize bycatch.

*Response.* The requirements of the Magnuson-Stevens Act are not discretionary. The Councils must consider the requirements in § 600.350(d) when evaluating conservation and management measures relative to the national standards. To ensure that this point is made, the word "should" in § 600.350(d) introductory text has been changed to "must" to emphasize the mandatory nature of Council actions under this national standard.

*Comment 26.* One commenter stated that the proposed language for national standard 9 neglected to include "to the extent practicable" when discussing reduction of mortality of bycatch that cannot be avoided. The commenter stated that Congress explicitly recognized that the costs of reducing

bycatch at some level outweigh the benefits, and that the Magnuson-Stevens Act does not demand that bycatch be decreased to the point of technical feasibility, just to the point that it still makes sense to reduce it.

*Response.* NMFS agrees; the guidelines already contain the language suggested. For the purposes of this national standard, the term "practicable" is not synonymous with the term "possible," because not all reductions that are possible are practicable. NMFS recognizes that in some fisheries it may not be practicable to eliminate all bycatch and bycatch mortality.

*Comment 27.* One commenter stated that, as stocks approach overfished conditions or are below their optimum levels, harvests (including bycatch) should be limited to well below the threshold at which there is a risk of precipitating or contributing to a decline.

*Response.* NMFS agrees. Bycatch mortality is a component of total fishing mortality and must be incorporated into stock assessments. To the extent that stock assessments include information on the types and magnitude of bycatch, total allowable catch determinations will reflect that information.

*Comment 28.* Several commenters stated that the guidelines ought to point out specifically that economics cannot justify bycatch that has a negative impact on the health of any stock in a multispecies fishery.

*Response.* NMFS agrees. The primary responsibility of the Councils is to develop conservation and management measures that, to the extent practicable, minimize the capture of bycatch species and that, to the extent bycatch cannot be avoided, minimize the mortality of such bycatch. The economic consequences of dealing with bycatch is one of the factors that determines the extent to which it is practicable to reduce bycatch or bycatch mortality in a particular fishery. The determination must be based on the net benefits to the Nation resulting from particular management measures. Language has been added to § 600.350(d) introductory text to indicate that the net benefits to the Nation include, but are not limited to, negative impacts on affected stocks; incomes accruing to participants in directed fisheries in both the short and long term; incomes accruing to participants in fisheries that target the bycatch species; environmental consequences; non-use values of bycatch species, which include non-consumptive uses of bycatch species and existence values, as well as

recreational values; and impacts on other marine organisms.

*Comment 29.* One commenter believed that, by allowing the Councils to prioritize their actions to address bycatch, NMFS would effectively (and unfairly) penalize those fisheries that have voluntarily collected and submitted bycatch data. The commenter felt that bycatch reduction should be done in a coordinated fashion, involving all harvesters.

*Response.* NMFS disagrees with the first part of the comment. The collection of such data was voluntarily initiated by the fishing industry because it was recognized that bycatch is a problem that must be dealt with; the fishing industry is to be commended for taking initiative in dealing with bycatch. The guidelines specifically list activities that the Councils must undertake to satisfy the requirements of this national standard. No fishery is exempt from the requirements. However, for practical reasons, the Councils will have to determine their priorities for development of management actions and the basis for setting those priorities.

*Comment 30.* One commenter stated that non-selective, destructive gear—specifically longlines, gillnets, and trawls—ought to be specifically mentioned in the section on bycatch as gear to which special attention ought to be paid in the development of any fishery management measures.

*Response.* NMFS disagrees. The Councils will need to prioritize their actions, not only with respect to various fisheries, but also to various gears. The Councils will need to determine, during the development of fishery management measures, which gears to allow and which ones need special attention. No change in the guidelines is necessary.

*Comment 31.* Several commenters suggested that SAFE reports are important tools in minimizing bycatch and that a requirement be added that information on the amount and type of bycatch be summarized in the SAFE report.

*Response.* NMFS agrees and has added appropriate language to § 600.350(d)(2). NMFS notes that § 600.315(e)(1)(ii) of the guidelines for national standard 2 already contains this requirement.

*Comment 32.* Several commenters stated that the list of factors in § 600.350(b)(3) is comprehensive and invites the Councils to use those factors as loopholes to avoid taking action. Commenters questioned why such a comprehensive list is needed for this standard and none of the others.

*Response.* NMFS disagrees. The lack of complete and perfect information is



not an excuse for not taking action. Uncertainty concerning the desirable and undesirable effects of minimizing bycatch and bycatch mortality should be dealt with similarly. (See also the response to comment 35 under national standard 9).

*Comment 33.* One commenter stated that there are no criteria or methods for establishing criteria for determining how much bycatch is too much.

*Response.* NMFS disagrees. Section 600.350(d)(3) provides a list of criteria for evaluating the impacts of bycatch. Each Council must determine how much bycatch is too much by balancing the various factors that will maximize the net benefits to the Nation (see also the response to comment 24 under national standard 9). Language that includes the maximization of net benefits to the Nation has been added to § 600.350(d)(3). The legislative history of the SFA includes the following floor statement by Congressman Young: "'Practicable' requires an analysis of the cost of imposing a management action; the Congress does not intend to ...impose costs on fishermen and processors that cannot be reasonably met."

*Comment 34.* Several commenters stated that Councils should prioritize their actions to address those fisheries that have not only the greatest bycatch rate, but also the greatest amount of bycatch.

*Response.* NMFS agrees that the Councils will need to prioritize their actions to address those fisheries where actions to reduce bycatch can have the greatest impact. Each Council will have to determine the basis for setting its priorities.

*Comment 35.* One commenter stated that the final rule must clearly reflect that Councils are not constrained from acting when faced with uncertainty surrounding one or several items included in § 600.350(d)(3).

*Response.* NMFS agrees. The Councils must take action to ensure the sustainability of the Nation's marine fishery resources. National standard 2 specifically requires that conservation and management measures be based on the best scientific information available. Where there is uncertainty surrounding any of the items in § 600.350(d)(3), Councils should adhere to the precautionary approach stated in the Food and Agriculture Organization of the United Nations (FAO) Code of Conduct for Responsible Fisheries (Article 6.5). The Code specifically states, "The absence of adequate scientific information should not be used as a reason for postponing or failing to take measures to conserve

target species, associated or dependent species and non-target species and their environment." Language to that effect has been added to § 600.350(d)(3).

*Comment 36.* Several commenters noted that requirements to implement monitoring programs in FMPs may prevent approval. Such requirements could be an administrative burden for the Councils and be very costly to implement.

*Response.* NMFS disagrees. Section 303(a)(11) of the Magnuson-Stevens Act specifically requires the Councils to establish, for each fishery, a "standardized reporting methodology to assess the amount and type of bycatch occurring in the fishery." The statute makes no allowance for the financial or administrative burden of establishing such reporting programs. It is clear that, in order to be able to assess the amount and type of bycatch occurring in various fisheries, monitoring programs must be established.

*Comment 37.* One commenter stated that data collection from all fishermen must be made a high priority.

*Response.* NMFS agrees and notes that the uncertainty surrounding estimates of the types and amounts of bycatch cannot be reduced without the cooperation and involvement of all components of the fisheries.

#### National Standard 10

Nine commenters commented specifically on national standard 10. All were positive and most substantive comments were directed at making the standard more restrictive. Several commenters gave unqualified support to the standard. One commenter urged that NMFS work aggressively with the Councils "to ensure that safety is constantly considered in fishery management."

*Comment 1:* One commenter noted that no criteria were provided for the phrase "to the extent practicable" in national standard 10, as were provided for national standard 9.

*Response:* NMFS disagrees. Section 600.355(b)(2) directly addresses these concerns.

*Comment 2:* One commenter noted "while it is stated clearly in the opening paragraph of the regulatory text (§ 600.355(b)(1)) that this standard [is] not meant to 'give preference to one method of managing a fishery over another,' the suggested mitigation management measures are replete with inappropriate implicit endorsement of ITQs (individual transferrable quotas) that directly undermine that provision." These references include "limiting the number of participants in the fishery," "spreading effort over time and area,"

and "implementing management measures that reduce the race for fish."

*Response:* The mitigation measures do not necessarily endorse ITQs. While ITQs may be one way to solve some problems with safety of life at sea and reduce the "race for fish," they are not the only way. Vessel/license limitation systems have been and are being adopted without ITQs, such as in the Alaska crab and groundfish fisheries. In New England, the use of "days at sea" has spread effort over time and area without creating a "race for fish." The term "race for fish" was used in the discussion of the bill that became the SFA, to describe the intensive fisheries that have developed at the expense of safety. As a primary reason for the establishment of this national standard, NMFS believes the term captures the intent of Congress and the legislation.

*Comment 3:* One commenter recommended that the national standard 10 guidelines require that Councils establish mandatory, standardized, accurate, and complete injury reporting requirements.

*Response:* NMFS agrees in part. Domestic fishing vessels are already required to report this information to the U.S. Coast Guard (USCG) under provisions at 46 CFR parts 4 and 28. This information can be made available through the USCG, and reports compared against vessels participating in the fisheries. Guidance on contents of SAFE reports at § 600.315(e)(1)(ii) has been revised to include consideration of safety issues.

*Comment 4:* One commenter recommended that the statement "This standard is not meant to give preference to one method of managing a fishery over another," should be deleted or replaced by, "While this standard is not meant to give preference to one method of managing a fishery over another, it should be considered a significant factor in allocation and other management decisions and the Council should provide rational justification why the safest method is not being used." Common sense would dictate that the safer management regime be used.

*Response:* NMFS disagrees and believes the guidance, as proposed, is accurate.

*Comment 5:* One commenter recommended that the term "safety of human life at sea" should be modified to read "safety of human life and limb at sea" to emphasize reduction in injuries as well as loss of life.

*Response:* NMFS considers the term "safety of human life at sea" to include not only safety of life, but safety of limb and the general operating environment, as well, to the extent that fishery

management measures may affect that safety. The discussion of the term at § 600.355(b)(3) has been revised to reflect this point.

*Comment 6:* One commenter recommended that this standard require that an FMP specify qualifications for individuals who are responsible for maintaining and controlling the stability of a fishing or fish processing vessel.

*Response:* Such a requirement is outside the scope of this rulemaking. Other than requiring employment and income information, neither NMFS nor the Councils have specified individual qualifications for fishermen. Individual professional qualifications for the master and crew come under the authority of the USCG, as specified by the Commercial Fishing Industry Vessel Safety Act. NMFS does have the authority to require permits of fishing vessel operators under the Magnuson-Stevens Act, section 303(b)(1)(B).

*Comment 7:* One commenter recommended that this standard consider more than the stability of the vessel and include safety of machinery and processing equipment, as well. FMPs should require processing vessels to meet and maintain safety standards developed in consultation with the Department of Labor's Occupational Safety and Health Administration (OSHA) as a condition of participation in the fishery.

*Response:* Onboard safety concerns, to the extent they are caused by fishery management measures, are addressed by the guidelines at § 600.355(c)(2). As noted in the comment, the USCG and OSHA have the primary responsibility for machinery and processing safety on board fishing vessels. Vessels are already required to comply with those standards; additional FMP requirements would therefore be redundant.

*Comment 8:* One commenter stated that § 600.355(c)(3) does not direct the creation of a mechanism for fisheries to be closed due to adverse weather conditions.

*Response:* While a mechanism to close, delay the opening of, or otherwise halt the fishery during adverse weather can improve safety, NMFS does not consider such a mechanism mandatory. Rather, it is one mitigation measure available to the Council, as noted in § 600.355(e)(1).

*Comment 9:* One commenter recommended that OSHA, the National Institute of Occupational Safety and Health, and the National Transportation Safety Board be consulted for vessel safety, in addition to the USCG.

*Response:* NMFS does not believe that requiring consultations with all these agencies is necessary at this time. These

agencies are outstanding sources of information on specific issues, and consultation with one or more of them may be appropriate in certain circumstances. However, routine consultation with these agencies is not necessary and would become burdensome to the Councils and to the agencies involved. NMFS encourages the Councils to use these and other groups, including industry groups, in formulating safer management measures.

*Comment 10:* One commenter recommended that a risk analysis be conducted for future amendments that include allocations between gear types, inshore-offshore processing allocations, seasonal openings, area openings or closures, and possibly others.

*Response:* NMFS does not believe that requiring a specific safety risk analysis for all these actions is necessary at this time. While a risk analysis may be appropriate in situations where there are a number of alternatives whose effects on safety are not clear, in others, the alternatives may be constrained by other national standard or legal restrictions, or their effects are very clear and a risk analysis is unnecessary. NMFS prefers to allow each Council to conduct a risk analysis at its option, based on consultations with the USCG and the fishing industry.

#### Classification

OMB has determined this rule to be economically significant under E.O. 12866 because this rule provides guidance on implementing statutory changes that may have large economic impacts on specific sectors of the economy. Each amendment to an existing FMP and all new FMPs will include detailed analyses of the benefits and costs of the management programs under consideration to ensure compliance with E.O. 12866.

In addition, OMB has determined this rule to be "major" under the Small Business Regulatory Enforcement and Fairness Act Congressional Review provision (5 U.S.C. 801 *et seq.*). Pursuant to authority at 5 U.S.C. 808(1), this major rule conducting a regulatory program for commercial and recreational activities related to fishing will be effective June 1, 1998.

The main purpose of these guidelines, in carrying out the 1996 amendments to the Magnuson-Stevens Act, is to reduce overfishing immediately, rebuild overfished stocks within a set timeframe, and prevent by catch and reduce mortality of unavoidable bycatch to the maximum extent possible. The effects of these guidelines can only be described qualitatively; quantified and

monetized estimates of benefits, costs and other effects cannot be developed until specific regulatory actions are identified and proposed. Changes in employment, regional economic development, and a variety of distributional concerns are examples of the important effects not otherwise captured in estimates of social costs and benefits.

Producers will bear costs implementing programs and regulations developed under these guidelines to restore fisheries stocks. These costs will take a variety of forms, such as mandatory investments in new fishing gear to reduce bycatch; restrictions on the level of fishing effort, which raise average costs; and other measures intended to reduce the quantity of fish harvested. Consumers also will bear costs, primarily in the form of lost consumers' surplus resulting from reduced market supply and concomitant higher prices. These costs will rise to the extent that consumer tastes continue to evolve toward greater preference for fish and shellfish over other foods.

Once fisheries stocks have recovered, producers will gain benefits in the form of reduced costs of production. Consumers also will benefit to the extent that restored stocks permit increases in the allowable harvest compatible with sustainable yield. Summed over all fisheries in the exclusive economic zone over the long term, the potential increase in net revenues is estimated at \$2.9 billion annually. Social benefits will equal the fraction of this amount remaining after all costs are deducted.

In the short-run, fisheries employment will likely fall as producers adapt to rules and restrictions undertaken to restore long-term sustainability. These job losses will be at least partially offset by increases in employment elsewhere. Once fisheries stocks have recovered, however, fisheries employment could increase by up to 300,000 jobs over present employment levels. As in the case of short-term job losses, these employment gains will be at least partially offset by reductions in jobs elsewhere. Changes in employment do not translate directly into benefits or costs, however, and must be evaluated instead as a separate class of effects resulting from individual rules and regulations promulgated pursuant to this guidance.

The Assistant General Counsel for Legislation and Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration that this rule will not have a significant economic impact on a substantial

number of small entities. This rule adds to and updates the national standards and accompanying explanatory and interpretive language to implement statutory provisions of the SFA. The SFA's amendments to the national standards make it necessary for the Councils to examine their existing FMPs and all future proposed management measures to ensure that they comply with the national standards; FMPs found out of compliance will need to be amended. These guidelines are intended to provide direction and elaboration on compliance with the national standards and, in themselves, do not have the force of law. Should Councils propose regulations as a result of the SFA, those actions may affect small entities and could be subject to the requirement to prepare a Regulatory Flexibility Analysis at the time they are proposed. Any future effects on small entities that may ultimately result from amendments to FMPs to bring them into compliance with the Magnuson-Stevens Act would be speculative at this time. One comment was received regarding this determination; the commenter believed that the impacts of these guidelines would have a significant economic impact on a substantial number of small entities. However, as explained in the response to general comment 8 above, NMFS believes that, while significant impacts could result from future management actions, the guidelines themselves have no such effect. Furthermore, NMFS has no basis upon which to assess, at this time, the impacts of regulations that may result from these revisions to the guidelines, except in the broadest sense. As a result, a Regulatory Flexibility Analysis for this rule was not prepared.

#### List of Subjects in 50 CFR Part 600

Administrative practice and procedure, Confidential business information, Fisheries, Fishing, Fishing vessels, Foreign relations, Intergovernmental relations, National Oceanic and Atmospheric Administration, Penalties, Reporting and recordkeeping requirements, Statistics.

#### Rolland A. Schmitten

Assistant Administrator for Fisheries,  
National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR part 600 is amended as follows:

#### PART 600—MAGNUSON-STEVENS ACT PROVISIONS

1. The authority citation for part 600 continues to read as follows:

**Authority:** 5 U.S.C. 561 and 16 U.S.C. 1801 *et seq.*

2. The part heading is revised to read as set forth above.

3. In § 600.305, paragraph (c)(13) is removed and the second and third sentences of paragraph (a)(2), the last sentence of paragraph (a)(3), and paragraphs (c)(1), (c)(3), (c)(11), and (c)(12) are revised to read as follows:

#### § 600.305 General.

(a) \* \* \*

(2) \* \* \* The Secretary will determine whether the proposed management objectives and measures are consistent with the national standards, other provisions of the Magnuson-Stevens Act, and other applicable law. The Secretary has an obligation under section 301(b) of the Magnuson-Stevens 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) \* \* \* FMPs that are in substantial compliance with the guidelines, the Magnuson-Stevens Act, and other applicable law must be approved.

\* \* \* \* \*

(c) \* \* \*

(1) *Must* is used, instead of "shall", to denote an obligation to act; it is used primarily when referring to requirements of the Magnuson-Stevens Act, the logical extension thereof, or of other applicable law.

\* \* \* \* \*

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

\* \* \* \* \*

(11) *Council* includes the Secretary, as applicable, when preparing FMPs or amendments under section 304(c) and (g) of the Magnuson-Stevens Act.

(12) *Stock or stock complex* is used as a synonym for "fishery" in the sense of the Magnuson-Stevens Act's first definition of the term; that is, as "one or more stocks of fish that can be treated as a unit for purposes of conservation and management and that are identified on the basis of geographic, scientific, technical, recreational, or economic characteristics," as distinguished from the Magnuson-Stevens Act's second definition of fishery as "any fishing for such stocks."

4. Section 600.310 is revised to read as follows:

#### § 600.310 National Standard 1—Optimum Yield.

(a) *Standard 1.* Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the OY from each fishery for the U.S. fishing industry.

(b) *General.* The determination of OY is a decisional mechanism for resolving the Magnuson-Stevens Act's multiple purposes and policies, implementing an FMP's objectives, and balancing the various interests that comprise the national welfare. OY is based on MSY, or on MSY as it may be reduced under paragraph (f)(3) 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.* Each FMP should include an estimate of MSY as explained in this section.

(1) *Definitions.* (i) "MSY" is the largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological and environmental conditions.

(ii) "MSY control rule" means a harvest strategy which, if implemented, would be expected to result in a long-term average catch approximating MSY.

(iii) "MSY stock size" means the long-term average size of the stock or stock complex, measured in terms of spawning biomass or other appropriate units, that would be achieved under an MSY control rule in which the fishing mortality rate is constant.

(2) *Options in specifying MSY.* (i) Because MSY is a theoretical concept, its estimation in practice is conditional on the choice of an MSY control rule. In choosing an MSY control rule, Councils should be guided by the characteristics of the fishery, the FMP's objectives, and the best scientific information available. The simplest MSY control rule is to remove a constant catch in each year that the estimated stock size exceeds an appropriate lower bound, where this catch is chosen so as to maximize the resulting long-term average yield. Other examples include the following: Remove a constant fraction of the biomass in each year, where this fraction is chosen so as to maximize the resulting long-term average yield; allow a constant level of escapement in each year, where this level is chosen so as to maximize the resulting long-term average yield; vary the fishing mortality rate as a continuous function of stock size, where the parameters of this function are constant and chosen so as to maximize the resulting long-term average yield. In any MSY control rule,

a given stock size is associated with a given level of fishing mortality and a given level of potential harvest, where the long-term average of these potential harvests provides an estimate of MSY.

(ii) Any MSY values used in determining OY will necessarily be estimates, and these will typically be associated with some level of uncertainty. Such estimates must be based on the best scientific information available (see § 600.315) and must incorporate appropriate consideration of risk (see § 600.335). Beyond these requirements, however, Councils have a reasonable degree of latitude in determining which estimates to use and how these estimates are to be expressed. For example, a point estimate of MSY may be expressed by itself or together with a confidence interval around that estimate.

(iii) In the case of a mixed-stock fishery, MSY should be specified on a stock-by-stock basis. However, where MSY cannot be specified for each stock, then MSY may be specified on the basis of one or more species as an indicator for the mixed stock as a whole or for the fishery as a whole.

(iv) Because MSY is a long-term average, it need not be estimated annually, but it must be based on the best scientific information available, and should be re-estimated as required by changes in environmental or ecological conditions or new scientific information.

(3) *Alternatives to specifying MSY.* When data are insufficient to estimate MSY directly, Councils should adopt other measures of productive capacity that can serve as reasonable proxies for MSY, to the extent possible. Examples include various reference points defined in terms of relative spawning per recruit. For instance, the fishing mortality rate that reduces the long-term average level of spawning per recruit to 30–40 percent of the long-term average that would be expected in the absence of fishing may be a reasonable proxy for the MSY fishing mortality rate. The long-term average stock size obtained by fishing year after year at this rate under average recruitment may be a reasonable proxy for the MSY stock size, and the long-term average catch so obtained may be a reasonable proxy for MSY. The natural mortality rate may also be a reasonable proxy for the MSY fishing mortality rate. If a reliable estimate of pristine stock size (i.e., the long-term average stock size that would be expected in the absence of fishing) is available, a stock size approximately 40 percent of this value may be a reasonable proxy for the MSY stock size, and the product of this stock size and

the natural mortality rate may be a reasonable proxy for MSY.

(d) *Overfishing*—(1) *Definitions.* (i) “To overfish” means to fish at a rate or level that jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis.

(ii) “Overfishing” occurs whenever a stock or stock complex is subjected to a rate or level of fishing mortality that jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis.

(iii) In the Magnuson-Stevens Act, the term “overfished” is used in two senses: First, to describe any stock or stock complex that is subjected to a rate or level of fishing mortality meeting the criterion in paragraph (d)(1)(i) of this section, and second, to describe any stock or stock complex whose size is sufficiently small that a change in management practices is required in order to achieve an appropriate level and rate of rebuilding. To avoid confusion, this section uses “overfished” in the second sense only.

(2) *Specification of status determination criteria.* Each FMP must specify, to the extent possible, objective and measurable status determination criteria for each stock or stock complex covered by that FMP and provide an analysis of how the status determination criteria were chosen and how they relate to reproductive potential. Status determination criteria must be expressed in a way that enables the Council and the Secretary to monitor the stock or stock complex and determine annually whether overfishing is occurring and whether the stock or stock complex is overfished. In all cases, status determination criteria must specify both of the following:

(i) *A maximum fishing mortality threshold or reasonable proxy thereof.* The fishing mortality threshold may be expressed either as a single number or as a function of spawning biomass or other measure of productive capacity. The fishing mortality threshold must not exceed the fishing mortality rate or level associated with the relevant MSY control rule. Exceeding the fishing mortality threshold for a period of 1 year or more constitutes overfishing.

(ii) *A minimum stock size threshold or reasonable proxy thereof.* The stock size threshold should be expressed in terms of spawning biomass or other measure of productive capacity. To the extent possible, the stock size threshold should equal whichever of the following is greater: One-half the MSY stock size, or the minimum stock size at which rebuilding to the MSY level would be expected to occur within 10 years if the stock or stock complex were exploited

at the maximum fishing mortality threshold specified under paragraph (d)(2)(i) of this section. Should the actual size of the stock or stock complex in a given year fall below this threshold, the stock or stock complex is considered overfished.

(3) *Relationship of status determination criteria to other national standards*—(i) *National standard 2.* Status determination criteria must be based on the best scientific information available (see § 600.315). When data are insufficient to estimate MSY, Councils should base status determination criteria on reasonable proxies thereof to the extent possible (also see paragraph (c)(3) of this section). In cases where scientific data are severely limited, effort should also be directed to identifying and gathering the needed data.

(ii) *National standard 3.* The requirement to manage interrelated stocks of fish as a unit or in close coordination notwithstanding (see § 600.320), status determination criteria should generally be specified in terms of the level of stock aggregation for which the best scientific information is available (also see paragraph (c)(2)(iii) of this section).

(iii) *National standard 6.* Councils must build into the status determination criteria appropriate consideration of risk, taking into account uncertainties in estimating harvest, stock conditions, life history parameters, or the effects of environmental factors (see § 600.335).

(4) *Relationship of status determination criteria to environmental change.* Some short-term environmental changes can alter the current size of a stock or stock complex without affecting the long-term productive capacity of the stock or stock complex. Other environmental changes affect both the current size of the stock or stock complex and the long-term productive capacity of the stock or stock complex.

(i) If environmental changes cause a stock or stock complex to fall below the minimum stock size threshold without affecting the long-term productive capacity of the stock or stock complex, fishing mortality must be constrained sufficiently to allow rebuilding within an acceptable time frame (also see paragraph (e)(4)(ii) of this section). Status determination criteria need not be respecified.

(ii) If environmental changes affect the long-term productive capacity of the stock or stock complex, one or more components of the status determination criteria must be respecified. Once status determination criteria have been respecified, fishing mortality may or may not have to be reduced, depending

on the status of the stock or stock complex with respect to the new criteria.

(iii) If manmade environmental changes are partially responsible for a stock or stock complex being in an overfished condition, in addition to controlling effort, Councils should recommend restoration of habitat and other ameliorative programs, to the extent possible (see also the guidelines issued pursuant to section 305(b) of the Magnuson-Stevens Act for Council actions concerning essential fish habitat).

(5) *Secretarial approval of status determination criteria.* Secretarial approval or disapproval of proposed status determination criteria will be based on consideration of whether the proposal:

- (i) Has sufficient scientific merit.
- (ii) Contains the elements described in paragraph (d)(2) of this section.
- (iii) Provides a basis for objective measurement of the status of the stock or stock complex against the criteria.
- (iv) Is operationally feasible.

(6) *Exceptions.* There are certain limited exceptions to the requirement to prevent overfishing. Harvesting one species of a mixed-stock complex at its optimum level may result in the overfishing of another stock component in the complex. A Council may decide to permit this type of overfishing only if all of the following conditions are satisfied:

- (i) It is demonstrated by analysis (paragraph (f)(6) of this section) that such action will result in long-term net benefits to the Nation.
- (ii) It is demonstrated by analysis that mitigating measures have been considered and that a similar level of long-term net benefits cannot be achieved by modifying fleet behavior, gear selection/configuration, or other technical characteristic in a manner such that no overfishing would occur.
- (iii) The resulting rate or level of fishing mortality will not cause any species or evolutionarily significant unit thereof to require protection under the ESA.

(e) *Ending overfishing and rebuilding overfished stocks—* (1) *Definition.* A threshold, either maximum fishing mortality or minimum stock size, is being "approached" whenever it is projected that the threshold will be breached within 2 years, based on trends in fishing effort, fishery resource size, and other appropriate factors.

(2) *Notification.* The Secretary will immediately notify a Council and request that remedial action be taken whenever the Secretary determines that:

- (i) Overfishing is occurring;

(ii) A stock or stock complex is overfished;

(iii) The rate or level of fishing mortality for a stock or stock complex is approaching the maximum fishing mortality threshold;

(iv) A stock or stock complex is approaching its minimum stock size threshold; or

(v) Existing remedial action taken for the purpose of ending previously identified overfishing or rebuilding a previously identified overfished stock or stock complex has not resulted in adequate progress.

(3) *Council action.* Within 1 year of such time as the Secretary may identify that overfishing is occurring, that a stock or stock complex is overfished, or that a threshold is being approached, or such time as a Council may be notified of the same under paragraph (e)(2) of this section, the Council must take remedial action by preparing an FMP, FMP amendment, or proposed regulations. This remedial action must be designed to accomplish all of the following purposes that apply:

(i) If overfishing is occurring, the purpose of the action is to end overfishing.

(ii) If the stock or stock complex is overfished, the purpose of the action is to rebuild the stock or stock complex to the MSY level within an appropriate time frame.

(iii) If the rate or level of fishing mortality is approaching the maximum fishing mortality threshold (from below), the purpose of the action is to prevent this threshold from being reached.

(iv) If the stock or stock complex is approaching the minimum stock size threshold (from above), the purpose of the action is to prevent this threshold from being reached.

(4) *Constraints on Council action.* (i) In cases where overfishing is occurring, Council action must be sufficient to end overfishing.

(ii) In cases where a stock or stock complex is overfished, Council action must specify a time period for rebuilding the stock or stock complex that satisfies the requirements of section 304(e)(4)(A) of the Magnuson-Stevens Act.

(A) A number of factors enter into the specification of the time period for rebuilding:

- (1) The status and biology of the stock or stock complex;
- (2) Interactions between the stock or stock complex and other components of the marine ecosystem (also referred to as "other environmental conditions");
- (3) The needs of fishing communities;

(4) Recommendations by international organizations in which the United States participates; and

(5) Management measures under an international agreement in which the United States participates.

(B) These factors enter into the specification of the time period for rebuilding as follows:

(1) The lower limit of the specified time period for rebuilding is determined by the status and biology of the stock or stock complex and its interactions with other components of the marine ecosystem, and is defined as the amount of time that would be required for rebuilding if fishing mortality were eliminated entirely.

(2) If the lower limit is less than 10 years, then the specified time period for rebuilding may be adjusted upward to the extent warranted by the needs of fishing communities and recommendations by international organizations in which the United States participates, except that no such upward adjustment can result in the specified time period exceeding 10 years, unless management measures under an international agreement in which the United States participates dictate otherwise.

(3) If the lower limit is 10 years or greater, then the specified time period for rebuilding may be adjusted upward to the extent warranted by the needs of fishing communities and recommendations by international organizations in which the United States participates, except that no such upward adjustment can exceed the rebuilding period calculated in the absence of fishing mortality, plus one mean generation time or equivalent period based on the species' life-history characteristics. For example, suppose a stock could be rebuilt within 12 years in the absence of any fishing mortality, and has a mean generation time of 8 years. The rebuilding period, in this case, could be as long as 20 years.

(C) A rebuilding program undertaken after May 1, 1998 commences as soon as the first measures to rebuild the stock or stock complex are implemented.

(D) In the case of rebuilding plans that were already in place as of May 1, 1998, such rebuilding plans must be reviewed to determine whether they are in compliance with all requirements of the Magnuson-Stevens Act, as amended by the Sustainable Fisheries Act.

(iii) For fisheries managed under an international agreement, Council action must reflect traditional participation in the fishery, relative to other nations, by fishermen of the United States.

(5) *Interim measures.* The Secretary, on his/her own initiative or in response

to a Council request, may implement interim measures to reduce overfishing under section 305(c) of the Magnuson-Stevens Act, until such measures can be replaced by an FMP, FMP amendment, or regulations taking remedial action.

(i) These measures may remain in effect for no more than 180 days, but may be extended for an additional 180 days if the public has had an opportunity to comment on the measures and, in the case of Council-recommended measures, the Council is actively preparing an FMP, FMP amendment, or proposed regulations to address overfishing on a permanent basis. Such measures, if otherwise in compliance with the provisions of the Magnuson-Stevens Act, may be implemented even though they are not sufficient by themselves to stop overfishing of a fishery.

(ii) If interim measures are made effective without prior notice and opportunity for comment, they should be reserved for exceptional situations, because they affect fishermen without providing the usual procedural safeguards. A Council recommendation for interim measures without notice-and-comment rulemaking will be considered favorably if the short-term benefits of the measures in reducing overfishing outweigh the value of advance notice, public comment, and deliberative consideration of the impacts on participants in the fishery.

(f) *OY—(1) Definitions.* (i) The term "optimum," with respect to the yield from a fishery, means the amount of fish that will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities and taking into account the protection of marine ecosystems; that is prescribed on the basis of the MSY from the fishery, as reduced by any relevant economic, social, or ecological factor; and, in the case of an overfished fishery, that provides for rebuilding to a level consistent with producing the MSY in such fishery.

(ii) In national standard 1, use of the phrase "achieving, on a continuing basis, the OY from each fishery" means producing, from each fishery, a long-term series of catches such that the average catch is equal to the average OY and such that status determination criteria are met.

(2) *Values in determination.* In determining the greatest benefit to the Nation, these values that should be weighed are food production, recreational opportunities, and protection afforded to marine ecosystems. They should receive serious attention when considering the

economic, social, or ecological factors used in reducing MSY to obtain OY.

(i) The benefits of food production are derived from providing seafood to consumers, maintaining an economically viable fishery together with its attendant contributions to the national, regional, and local economies, and utilizing the capacity of the Nation's fishery resources to meet nutritional needs.

(ii) The benefits of recreational opportunities reflect the quality of both the recreational fishing experience and non-consumptive fishery uses such as ecotourism, fish watching, and recreational diving, and the contribution of recreational fishing to the national, regional, and local economies and food supplies.

(iii) The benefits of protection afforded to marine ecosystems are those resulting from maintaining viable populations (including those of unexploited species), maintaining evolutionary and ecological processes (e.g., disturbance regimes, hydrological processes, nutrient cycles), maintaining the evolutionary potential of species and ecosystems, and accommodating human use.

(3) *Factors relevant to OY.* Because fisheries have finite capacities, any attempt to maximize the measures of benefit described in paragraph (f)(2) of this section will inevitably encounter practical constraints. One of these is MSY. Moreover, various factors can constrain the optimum level of catch to a value less than MSY. The Magnuson-Stevens Act's definition of OY identifies three categories of such factors: Social, economic, and ecological. Not every factor will be relevant in every fishery. For some fisheries, insufficient information may be available with respect to some factors to provide a basis for corresponding reductions in MSY.

(i) *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. Other factors that may be considered include the cultural place of subsistence fishing, obligations under Indian treaties, and worldwide nutritional needs.

(ii) *Economic factors.* Examples are prudent consideration of the risk of overharvesting when a stock's size or productive capacity is uncertain, satisfaction of consumer and recreational needs, and encouragement of domestic and export markets for U.S.-harvested fish. Other factors that may be considered include the value of

fisheries, the level of capitalization, the decrease in cost per unit of catch afforded by an increase in stock size, and the attendant increase in catch per unit of effort, alternate employment opportunities, and economies of coastal areas.

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

(4) *Specification.* (i) The amount of fish that constitutes the OY should be expressed in terms of numbers or weight of fish. However, OY may be expressed as a formula that converts periodic stock assessments into target harvest levels; in terms of an annual harvest of fish or shellfish having a minimum weight, length, or other measurement; or as an amount of fish taken only in certain areas, in certain seasons, with particular gear, or by a specified amount of fishing effort.

(ii) Either a range or a single value may be specified for OY. Specification of a numerical, fixed-value OY does not preclude use of annual target harvest levels that vary with stock size. Such target harvest levels may be prescribed on the basis of an OY control rule similar to the MSY control rule described in paragraph (c)(1)(ii) of this section, but designed to achieve OY on average, rather than MSY. The annual harvest level obtained under an OY control rule must always be less than or equal to the harvest level that would be obtained under the MSY control rule.

(iii) All fishing mortality must be counted against OY, including that resulting from bycatch, scientific research, and any other fishing activities.

(iv) The OY specification should be translatable into an annual numerical estimate for the purposes of establishing any TALFF and analyzing impacts of the management regime. There should be a mechanism in the FMP for periodic reassessment of the OY specification, so that it is responsive to changing circumstances in the fishery.

(v) The determination of OY requires a specification of MSY, which may not always be possible or meaningful. However, even where sufficient scientific data as to the biological characteristics of the stock do not exist,

or where 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 diminish the meaningfulness of the MSY concept, the OY must still be based on the best scientific information available. When data are insufficient to estimate MSY directly, Councils should adopt other measures of productive capacity that can serve as reasonable proxies for MSY to the extent possible (also see paragraph (c)(3) of this section).

(vi) In a mixed-stock fishery, specification of a fishery-wide OY may be accompanied by management measures establishing separate annual target harvest levels for the individual stocks. In such cases, the sum of the individual target levels should not exceed OY.

(5) *OY and the precautionary approach.* In general, Councils should adopt a precautionary approach to specification of OY. A precautionary approach is characterized by three features:

(i) Target reference points, such as OY, should be set safely below limit reference points, such as the catch level associated with the fishing mortality rate or level defined by the status determination criteria. Because it is a target reference point, OY does not constitute an absolute ceiling, but rather a desired result. An FMP must contain conservation and management measures to achieve OY, and provisions for information collection that are designed to determine the degree to which OY is achieved on a continuing basis—that is, to result in a long-term average catch equal to the long-term average OY, while meeting the status determination criteria. These measures should allow for practical and effective implementation and enforcement of the management regime, so that the harvest is allowed to reach OY, but not to exceed OY by a substantial amount. The Secretary has an 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. Exceeding OY does not necessarily constitute overfishing. However, even if no overfishing resulted from exceeding OY, continual harvest at a level above OY would violate national standard 1, because OY was not achieved on a continuing basis.

(ii) A stock or stock complex that is below the size that would produce MSY should be harvested at a lower rate or

level of fishing mortality than if the stock or stock complex were above the size that would produce MSY.

(iii) Criteria used to set target catch levels should be explicitly risk averse, so that greater uncertainty regarding the status or productive capacity of a stock or stock complex corresponds to greater caution in setting target catch levels. Part of the OY may be held as a reserve to allow for factors such as uncertainties in estimates of stock size and DAH. If an OY reserve is established, an adequate mechanism should be included in the FMP to permit timely release of the reserve to domestic or foreign fishermen, if necessary.

(6) *Analysis.* An FMP must contain an assessment of how its OY specification was determined (section 303(a)(3) of the Magnuson-Stevens 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. A Council must identify those economic, social, and ecological factors relevant to management of a particular fishery, then evaluate them to determine the amount, if any, by which MSY exceeds OY. 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. If overfishing is permitted under paragraph (d)(6) of this section, the assessment must contain a justification in terms of overall benefits, including a comparison of benefits under alternative management measures, and an analysis of the risk of any species or ecologically significant unit thereof reaching a threatened or endangered status, as well as the risk of any stock or stock complex falling below its minimum stock size threshold.

(7) *OY and foreign fishing.* Section 201(d) of the Magnuson-Stevens 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.

(i) *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.

(ii) *DAP.* Each FMP must assess the capacity of U.S. processors. It must also assess the amount of DAP, which is the sum of two estimates: The estimated amount of U.S. harvest that domestic processors will process, which may be based on historical performance or on surveys of the expressed intention of

manufacturers to process, supported by evidence of contracts, plant expansion, or other relevant information; and the estimated amount of fish that will be harvested by domestic vessels, but not processed (e.g., marketed as fresh whole fish, used for private consumption, or used for bait).

(iii) *JVP.* When DAH exceeds DAP, the surplus is available for JVP. JVP is derived from DAH.

5. In § 600.315, paragraphs (e)(3) and (e)(4) are redesignated as paragraphs (e)(4) and (e)(5), respectively; new paragraph (e)(3) is added; and paragraphs (c)(2), (c)(3), (e)(1) introductory text, (e)(1)(ii), and newly redesignated (e)(4) are revised to read as follows:

**§ 600.315 National Standard 2—Scientific Information.**

\* \* \* \* \*

(c) \* \* \*

(2) An FMP should identify scientific information needed from other sources to improve understanding and management of the resource, marine ecosystem, and the fishery (including fishing communities).

(3) The information submitted by various data suppliers should be comparable and compatible, to the maximum extent possible.

\* \* \* \* \*

(e) \* \* \*

(1) The SAFE report is a document or set of documents that provides Councils with a summary of information concerning the most recent biological condition of stocks and the marine ecosystems in the FMU and the social and economic condition of the recreational and commercial fishing interests, fishing communities, and the fish processing industries. It summarizes, on a periodic basis, the best available scientific information concerning the past, present, and possible future condition of the stocks, marine ecosystems, and fisheries being managed under Federal regulation.

\* \* \* \* \*

(ii) The SAFE report provides information to the Councils for determining annual harvest levels from each stock, documenting significant trends or changes in the resource, marine ecosystems, and fishery over time, and assessing the relative success of existing state and Federal fishery management programs. Information on bycatch and safety for each fishery should also be summarized. In addition, the SAFE report may be used to update or expand previous environmental and regulatory impact documents, and ecosystem and habitat descriptions.

\* \* \* \* \*

(3) Each SAFE report should contain a description of the maximum fishing mortality threshold and the minimum stock size threshold for each stock or stock complex, along with information by which the Council may determine:

(i) Whether overfishing is occurring with respect to any stock or stock complex, whether any stock or stock complex is overfished, whether the rate or level of fishing mortality applied to any stock or stock complex is approaching the maximum fishing mortality threshold, and whether the size of any stock or stock complex is approaching the minimum stock size threshold.

(ii) Any management measures necessary to provide for rebuilding an overfished stock or stock complex (if any) to a level consistent with producing the MSY in such fishery.

(4) Each SAFE report may contain additional economic, social, community, essential fish habitat, and ecological information pertinent to the success of management or the achievement of objectives of each FMP.

6. In § 600.320, the last sentence of paragraph (c) is revised to read as follows:

§ 600.320 National Standard 3—Management Units.

(c) \* \* \* The Secretary designates which Council(s) will prepare the FMP, under section 304(f) of the Magnuson-Stevens Act.

7. In § 600.325, paragraph (c)(3)(ii) is revised to read as follows:

§ 600.325 National Standard 4—Allocations.

(c) \* \* \* (3) \* \* \*

(ii) Promotion of conservation. Numerous methods of allocating fishing privileges are considered "conservation and management" measures under section 303 of the Magnuson-Stevens 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. To the extent that rebuilding plans or other conservation and management measures that reduce the overall harvest in a fishery are necessary, any harvest restrictions or recovery benefits must be allocated fairly and equitably among the

commercial, recreational, and charter fishing sectors of the fishery.

8. In § 600.330, paragraphs (a) and (b)(1), the first sentence of paragraph (c) introductory text, the last sentence of paragraph (c)(1), and paragraph (c)(2) are revised to read as follows:

§ 600.330 National Standard 5—Efficiency.

(a) Standard 5. Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.

(1) General. The term "utilization" encompasses harvesting, processing, marketing, and non-consumptive uses of the resource, since management decisions affect all sectors of the industry. In considering 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.

(c) Limited access. A "system for limiting access," which is an optional measure under section 303(b) of the Magnuson-Stevens Act, is a type of allocation of fishing privileges that may be considered to contribute to economic efficiency or conservation.

(1) \* \* \* Two forms (i.e., Federal fees for licenses or permits in excess of administrative costs, and taxation) are not permitted under the Magnuson-Stevens Act, except for fees allowed under section 304(d)(2).

(2) Factors to consider. The Magnuson-Stevens Act ties the use of limited access to the achievement of OY. An FMP that proposes a limited access system must consider the factors listed in section 303(b)(6) of the Magnuson-Stevens Act and in § 600.325(c)(3). 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 Magnuson-Stevens Act's limitations on returning economic rent to the public under section 304(d). The FMP should also discuss the costs of achieving an appropriate distribution of fishing privileges.

9. In § 600.340, paragraph (b)(1) is amended by revising the second sentence to read as follows:

§ 600.340 National Standard 7—Costs and Benefits.

(1) \* \* \* The Magnuson-Stevens Act requires Councils to prepare FMPs only for overfished fisheries and for other fisheries where regulation would serve some useful purpose and where the present or future benefits of regulation would justify the costs.

10. Sections 600.345, 600.350, and 600.355 are added to subpart D to read as follows:

§ 600.345 National Standard 8—Communities.

(a) Standard 8. Conservation and management measures shall, consistent with the conservation requirements of the Magnuson-Stevens Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to:

- (1) Provide for the sustained participation of such communities; and
(2) To the extent practicable, minimize adverse economic impacts on such communities.

(b) General. (1) This standard requires that an FMP take into account the importance of fishery resources to fishing communities. This consideration, however, is within the context of the conservation requirements of the Magnuson-Stevens Act. Deliberations regarding the importance of fishery resources to affected fishing communities, therefore, must not compromise the achievement of conservation requirements and goals of the FMP. Where the preferred alternative negatively affects the sustained participation of fishing communities, the FMP should discuss the rationale for selecting this alternative over another with a lesser impact on fishing communities. All other things being equal, where two alternatives achieve similar conservation goals, the alternative that provides the greater potential for sustained participation of such communities and minimizes the adverse economic impacts on such communities would be the preferred alternative.

(2) This standard does not constitute a basis for allocating resources to a specific fishing community nor for providing preferential treatment based on residence in a fishing community.

(3) The term "fishing community" means a community that is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic



needs, and includes fishing vessel owners, operators, and crew, and fish processors that are based in such communities. A fishing community is a social or economic group whose members reside in a specific location and share a common dependency on commercial, recreational, or subsistence fishing or on directly related fisheries-dependent services and industries (for example, boatyards, ice suppliers, tackle shops).

(4) The term "sustained participation" means continued access to the fishery within the constraints of the condition of the resource.

(c) *Analysis.* (1) FMPs must examine the social and economic importance of fisheries to communities potentially affected by management measures. For example, severe reductions of harvests for conservation purposes may decrease employment opportunities for fishermen and processing plant workers, thereby adversely affecting their families and communities. Similarly, a management measure that results in the allocation of fishery resources among competing sectors of a fishery may benefit some communities at the expense of others.

(2) An appropriate vehicle for the analyses under this standard is the fishery impact statement required by section 303(a)(9) of the Magnuson-Stevens Act. Qualitative and quantitative data may be used, including information provided by fishermen, dealers, processors, and fisheries organizations and associations. In cases where data are severely limited, effort should be directed to identifying and gathering needed data.

(3) To address the sustained participation of fishing communities that will be affected by management measures, the analysis should first identify affected fishing communities and then assess their differing levels of dependence on and engagement in the fishery being regulated. The analysis should also specify how that assessment was made. The best available data on the history, extent, and type of participation of these fishing communities in the fishery should be incorporated into the social and economic information presented in the FMP. The analysis does not have to contain an exhaustive listing of all communities that might fit the definition; a judgment can be made as to which are primarily affected. The analysis should discuss each alternative's likely effect on the sustained participation of these fishing communities in the fishery.

(4) The analysis should assess the likely positive and negative social and

economic impacts of the alternative management measures, over both the short and the long term, on fishing communities. Any particular management measure may economically benefit some communities while adversely affecting others. Economic impacts should be considered both for individual communities and for the group of all affected communities identified in the FMP. Impacts of both consumptive and non-consumptive uses of fishery resources should be considered.

(5) A discussion of social and economic impacts should identify those alternatives that would minimize adverse impacts on these fishing communities within the constraints of conservation and management goals of the FMP, other national standards, and other applicable law.

#### **§ 600.350 National Standard 9—Bycatch.**

(a) *Standard 9.* Conservation and management measures shall, to the extent practicable:

- (1) Minimize bycatch; and
- (2) To the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

(b) *General.* This national standard requires Councils to consider the bycatch effects of existing and planned conservation and management measures. Bycatch can, in two ways, impede efforts to protect marine ecosystems and achieve sustainable fisheries and the full benefits they can provide to the Nation. First, bycatch can increase substantially the uncertainty concerning total fishing-related mortality, which makes it more difficult to assess the status of stocks, to set the appropriate OY and define overfishing levels, and to ensure that OYs are attained and overfishing levels are not exceeded. Second, bycatch may also preclude other more productive uses of fishery resources.

(c) *Definition—Bycatch.* The term "bycatch" means fish that are harvested in a fishery, but that are not sold or kept for personal use. Bycatch includes the discard of whole fish at sea or elsewhere, including economic discards and regulatory discards, and fishing mortality due to an encounter with fishing gear that does not result in capture of fish (i.e., unobserved fishing mortality). Bycatch does not include any fish that legally are retained in a fishery and kept for personal, tribal, or cultural use, or that enter commerce through sale, barter, or trade. Bycatch does not include fish released alive under a recreational catch-and-release fishery management program. A catch-and-release fishery management program is

one in which the retention of a particular species is prohibited. In such a program, those fish released alive would not be considered bycatch. Bycatch also does not include Atlantic highly migratory species harvested in a commercial fishery that are not regulatory discards and that are tagged and released alive under a scientific tag-and-release program established by the Secretary.

(d) *Minimizing bycatch and bycatch mortality.* The priority under this standard is first to avoid catching bycatch species where practicable. Fish that are bycatch and cannot be avoided must, to the extent practicable, be returned to the sea alive. Any proposed conservation and management measure that does not give priority to avoiding the capture of bycatch species must be supported by appropriate analyses. In their evaluation, the Councils must consider the net benefits to the Nation, which include, but are not limited to: Negative impacts on affected stocks; incomes accruing to participants in directed fisheries in both the short and long term; incomes accruing to participants in fisheries that target the bycatch species; environmental consequences; non-market values of bycatch species, which include non-consumptive uses of bycatch species and existence values, as well as recreational values; and impacts on other marine organisms. To evaluate conservation and management measures relative to this and other national standards, as well as to evaluate total fishing mortality, Councils must—

(1) *Promote development of a database on bycatch and bycatch mortality in the fishery to the extent practicable.* A review and, where necessary, improvement of data collection methods, data sources, and applications of data must be initiated for each fishery to determine the amount, type, disposition, and other characteristics of bycatch and bycatch mortality in each fishery for purposes of this standard and of section 303(a)(11) and (12) of the Magnuson-Stevens Act. Bycatch should be categorized to focus on management responses necessary to minimize bycatch and bycatch mortality to the extent practicable. When appropriate, management measures, such as at-sea monitoring programs, should be developed to meet these information needs.

(2) *For each management measure, assess the effects on the amount and type of bycatch and bycatch mortality in the fishery.* Most conservation and management measures can affect the amounts of bycatch or bycatch mortality in a fishery, as well as the extent to

which further reductions in bycatch are practicable. In analyzing measures, including the status quo, Councils should assess the impacts of minimizing bycatch and bycatch mortality, as well as consistency of the selected measure with other national standards and applicable laws. The benefits of minimizing bycatch to the extent practicable should be identified and an assessment of the impact of the selected measure on bycatch and bycatch mortality provided. Due to limitations on the information available, fishery managers may not be able to generate precise estimates of bycatch and bycatch mortality or other effects for each alternative. In the absence of quantitative estimates of the impacts of each alternative, Councils may use qualitative measures. Information on the amount and type of bycatch should be summarized in the SAFE reports.

(3) *Select measures that, to the extent practicable, will minimize bycatch and bycatch mortality.* (i) A determination of whether a conservation and management measure minimizes bycatch or bycatch mortality to the extent practicable, consistent with other national standards and maximization of net benefits to the Nation, should consider the following factors:

(A) Population effects for the bycatch species.

(B) Ecological effects due to changes in the bycatch of that species (effects on other species in the ecosystem).

(C) Changes in the bycatch of other species of fish and the resulting population and ecosystem effects.

(D) Effects on marine mammals and birds.

(E) Changes in fishing, processing, disposal, and marketing costs.

(F) Changes in fishing practices and behavior of fishermen.

(G) Changes in research, administration, and enforcement costs and management effectiveness.

(H) Changes in the economic, social, or cultural value of fishing activities and nonconsumptive uses of fishery resources.

(I) Changes in the distribution of benefits and costs.

(J) Social effects.

(ii) The Councils should adhere to the precautionary approach found in the Food and Agriculture Organization of the United Nations (FAO) Code of Conduct for Responsible Fisheries (Article 6.5), which is available from the Director, Publications Division, FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy, when faced with uncertainty concerning any of the factors listed in this paragraph (d)(3).

(4) *Monitor selected management measures.* Effects of implemented

measures should be evaluated routinely. Monitoring systems should be established prior to fishing under the selected management measures. Where applicable, plans should be developed and coordinated with industry and other concerned organizations to identify opportunities for cooperative data collection, coordination of data management for cost efficiency, and avoidance of duplicative effort.

(e) *Other considerations.* Other applicable laws, such as the MMPA, the ESA, and the Migratory Bird Treaty Act, require that Councils consider the impact of conservation and management measures on living marine resources other than fish; i.e., marine mammals and birds.

#### § 600.355 National Standard 10—Safety of Life at Sea.

(a) *Standard 10.* Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

(b) *General.* (1) Fishing is an inherently dangerous occupation where not all hazardous situations can be foreseen or avoided. The standard directs Councils to reduce that risk in crafting their management measures, so long as they can meet the other national standards and the legal and practical requirements of conservation and management. This standard is not meant to give preference to one method of managing a fishery over another.

(2) The qualifying phrase "to the extent practicable" recognizes that regulation necessarily puts constraints on fishing that would not otherwise exist. These constraints may create pressures on fishermen to fish under conditions that they would otherwise avoid. This standard instructs the Councils to identify and avoid those situations, if they can do so consistent with the legal and practical requirements of conservation and management of the resource.

(3) For the purposes of this national standard, the safety of the fishing vessel and the protection from injury of persons aboard the vessel are considered the same as "safety of human life at sea. The safety of a vessel and the people aboard is ultimately the responsibility of the master of that vessel. Each master makes many decisions about vessel maintenance and loading and about the capabilities of the vessel and crew to operate safely in a variety of weather and sea conditions. This national standard does not replace the judgment or relieve the responsibility of the vessel master related to vessel safety. The Councils, the USCG, and NMFS, through the consultation process of paragraph (d) of

this section, will review all FMPs, amendments, and regulations during their development to ensure they recognize any impact on the safety of human life at sea and minimize or mitigate that impact where practicable.

(c) *Safety considerations.* The following is a non-inclusive list of safety considerations that should be considered in evaluating management measures under national standard 10.

(1) *Operating environment.* Where and when a fishing vessel operates is partly a function of the general climate and weather patterns of an area. Typically, larger vessels can fish farther offshore and in more adverse weather conditions than smaller vessels. An FMP should try to avoid creating situations that result in vessels going out farther, fishing longer, or fishing in weather worse than they generally would have in the absence of management measures. Where these conditions are unavoidable, management measures should mitigate these effects, consistent with the overall management goals of the fishery.

(2) *Gear and vessel loading requirements.* A fishing vessel operates in a very dynamic environment that can be an extremely dangerous place to work. Moving heavy gear in a seaway creates a dangerous situation on a vessel. Carrying extra gear can also significantly reduce the stability of a fishing vessel, making it prone to capsizing. An FMP should consider the safety and stability of fishing vessels when requiring specific gear or requiring the removal of gear from the water. Management measures should reflect a sensitivity to these issues and provide methods of mitigation of these situations wherever possible.

(3) *Limited season and area fisheries.* Fisheries where time constraints for harvesting are a significant factor and with no flexibility for weather, often called "derby" fisheries, can create serious safety problems. To participate fully in such a fishery, fishermen may fish in bad weather and overload their vessel with catch and/or gear. Where these conditions exist, FMPs should attempt to mitigate these effects and avoid them in new management regimes, as discussed in paragraph (e) of this section.

(d) *Consultation.* During preparation of any FMP, FMP amendment, or regulation that might affect safety of human life at sea, the Council should consult with the USCG and the fishing industry as to the nature and extent of any adverse impacts. This consultation may be done through a Council advisory panel, committee, or other review of the

FMP, FMP amendment, or regulations. Mitigation, to the extent practicable, and other safety considerations identified in paragraph (c) of this section should be included in the FMP.

(e) *Mitigation measures.* There are many ways in which an FMP may avoid or provide alternative measures to reduce potential impacts on safety of human life at sea. The following is a list of some factors that could be considered when management measures are developed:

(1) Setting seasons to avoid hazardous weather.

(2) Providing for seasonal or trip flexibility to account for bad weather (weather days).

(3) Allowing for pre- and post-season "soak time" to deploy and pick up fixed gear, so as to avoid overloading vessels with fixed gear.

(4) Tailoring gear requirements to provide for smaller or lighter gear for smaller vessels.

(5) Avoiding management measures that require hazardous at-sea inspections or enforcement if other

comparable enforcement could be accomplished as effectively.

(6) Limiting the number of participants in the fishery.

(7) Spreading effort over time and area to avoid potential gear and/or vessel conflicts.

(8) Implementing management measures that reduce the race for fish and the resulting incentives for fishermen to take additional risks with respect to vessel safety.

[FR Doc. 98-11471 Filed 4-30-98; 8:45 am]

BILLING CODE 3510-22-F