

**DEPARTMENT OF COMMERCE****National Oceanic and Atmospheric Administration****50 CFR Part 600**

[Docket No. 120416013-4641-02]

RIN 0648-BB92

**Magnuson-Stevens Act Provisions; National Standard Guidelines**

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

**ACTION:** Proposed rule; request for comments.

**SUMMARY:** NMFS proposes revisions to the guidelines for National Standards (NS) 1, 3, and 7 of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and to the General section of the NS guidelines. This action is necessary to improve and clarify the guidance within the NS guidelines. The purpose of this action is to facilitate compliance with requirements of the MSA to end and prevent overfishing, rebuild overfished stocks and achieve optimum yield (OY).

**DATES:** Written comments must be received on or before June 30, 2015.

**ADDRESSES:** You may submit comments on this document, identified by NOAA-NMFS-2012-0059, by any of the following methods:

- Electronic Submission: Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to [www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2012-0059](http://www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2012-0059), click the "Comment Now!" icon, complete the required fields, and enter or attach your comments.
- Mail: Submit written comments to Wesley Patrick, National Marine Fisheries Service, NOAA, Office of Sustainable Fisheries, 1315 East-West Highway, Room 13357, Silver Spring, MD 20910.
- Fax: 301-713-1193; Attn: Wesley Patrick.

**Instructions:** Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NMFS. All comments received are a part of the public record and will generally be posted for public viewing on [www.regulations.gov](http://www.regulations.gov) without change. All personal identifying information (e.g., name, address, etc.), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will

accept anonymous comments (enter "N/A" in the required fields if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word, Excel, or Adobe PDF file formats only. Copies of supporting documents can be obtained from Wesley Patrick (see **FOR FURTHER INFORMATION CONTACT**).

**FOR FURTHER INFORMATION CONTACT:** Wesley Patrick, 301-427-8563

**SUPPLEMENTARY INFORMATION:**

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**I. Purpose and Overview of Proposed Revisions**

The National Marine Fisheries Service (NMFS) fulfills the requirements of section 301(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA)—"The Secretary shall establish advisory guidelines (which shall not have the force and effect of law), based on the national standards, to assist in the development of fishery management plans"—with its National Standard (NS) guidelines that appear at 50 CFR 600.305 through 600.355. NMFS is proposing revisions to the General section of the NS guidelines and the guidelines for NS1, NS3, and NS7. Since 2007, fisheries management within the U.S. has experienced many changes, in particular the development and implementation of annual catch limits (ACLs) and accountability measures (AMs) under all fishery management plans to end and prevent overfishing. Based on this experience, NMFS believes the NS guidelines can be improved to enhance the utility of the guidelines for managers and the public.

The objective of these proposed revisions is to improve and streamline the NS1 guidelines, address concerns raised during the implementation of ACLs and AMs, and provide flexibility within current statutory limits to address fishery management issues. The purpose of this action is to facilitate compliance with requirements of the MSA, 16 U.S.C. 1801 *et seq.*, to end and prevent overfishing, rebuild overfished stocks, and achieve optimum yield (OY). The proposed revisions would not establish new, specific requirements or require Fishery Management Councils (Councils) to revise their Fishery Management Plans (FMPs) to comply with the MSA. Rather, the proposal offers additional clarity and potential alternatives to highlight the current flexibility in meeting the MSA's current mandates.

Proposed revisions to the General section of the NS guidelines and the guidelines for NS1, NS3, and NS7 include the following: (1) Add a recommendation that Councils reassess the objectives of their fisheries on a regular basis; (2) consolidate and clarify guidance on identifying whether stocks require conservation and management; (3) provide additional flexibility in managing data limited stocks; (4) revise the guidance on stock complexes to encourage the use of indicator stocks; (5) describe how aggregate maximum sustainable yield (MSY) estimates can be used; (6) propose a definition for a depleted stock; (7) provide increased stability in fisheries by providing guidance on the use of multi-year overfishing determinations; (8) revise the guidance on optimum yield (OY) to improve clarity and better describe the role of OY under the Annual Catch Limit (ACL) framework; (9) clarify the guidance on acceptable biological catch (ABC) control rules, describe how the ABC control rules can allow for phase-in adjustments to ABC, and allow for carry-over of all or some of an unused portion of the ACL; (10) revise the guidance on accountability measures (AMs) to improve clarity; (11) clarify the guidance on establishing ACL and AM mechanisms in FMPs; and (12) provide flexibility in rebuilding stocks. Further explanations of the major revisions that are being proposed, and the rationale for those revisions, are provided below.

**II. Background**

Section 301(a) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) contains 10 national standards for fishery conservation and management. Any FMP prepared under the MSA, and any regulation promulgated pursuant to the

MSA to implement any such plan, must be consistent with these national standards. National Standard 1 (NS1) of the MSA states that conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the OY from each fishery for the U.S. fishing industry. National Standard 3 (NS3) of the MSA states that, to the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination. National Standard 7 (NS7) of the MSA states that conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

Guidelines for NS1, NS3, and NS7 were first published in 1977 (42 FR 34450, July 5, 1977) and are codified in 50 CFR 600.310, 600.320, and 600.340, respectively. NMFS last revised the NS1 guidelines on January 16, 2009, to provide guidance for the implementation of requirements enacted by the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 for annual catch limits (ACLs) and accountability measures (AMs) to end and prevent overfishing (74 FR 3178). The NS3 and NS7 guidelines were last revised in 1998 (63 FR 24212, May 1, 1998).

From 2007 to 2012, the 46 Federal FMPs have been amended to implement ACLs and AMs to end and prevent overfishing. This has been a transformative process for Federal fisheries; before the ACL requirement, some U.S. fisheries were managed under a total allowable catch system, but the majority were managed through effort controls (e.g., days at sea, closures) or without explicit accountability.

Due to a number of concerns raised during the implementation of ACLs and AMs, NMFS published an Advance Notice of Proposed Rulemaking (ANPR) on May 3, 2012, (77 FR 26238) to solicit public comments on potential adjustments to the NS1 guidelines. The comment period on the ANPR was extended once (77 FR 39459, July 3, 2012), and then reopened (77 FR 58086, Sept. 19, 2012), and ended on October 12, 2012. In March 2013, NMFS published a report that summarizes the comments received on the ANPR; the report is available online at: [http://www.nmfs.noaa.gov/sfa/laws\\_policies/national\\_standards/ns1\\_revisions.html](http://www.nmfs.noaa.gov/sfa/laws_policies/national_standards/ns1_revisions.html).

In addition to the ANPR, issues related to the national standard guidelines were discussed at other public forums. In May 2013, NMFS sponsored the Managing Our Nation's Fisheries 3 conference in Washington,

DC. The conference focused on identifying ways to advance sustainability within U.S. fisheries. The discussions at the conference addressed MSA reauthorization issues, as well as adjustments to current management (including potential revisions to the NS1 guidelines) that do not require legislation to implement. More information about the conference is available here: <http://www.managingfisheries.org/>. In September 2013, in response to a 2010 request from Congress, the National Research Council released its report titled "Evaluating the Effectiveness of Fish Stock Rebuilding Plans in the United States." This included an evaluation of success in stock rebuilding, an investigation of the effects of uncertainty, and identification of means to better account for social, economic and ecosystem factors in the rebuilding plans. The purpose of the report was to help NOAA and the regional Councils better construct efficient and effective rebuilding plans. More information about the report is available here: [http://www.nmfs.noaa.gov/sfa/laws\\_policies/national\\_standards/rebuilding.htm](http://www.nmfs.noaa.gov/sfa/laws_policies/national_standards/rebuilding.htm).

In December 2013, the Marine Fisheries Advisory Committee Recreational Fishing Group presented NMFS with a white paper on recreational fisheries perspectives. The paper included recommendations for possible changes to the MSA, as well as possible changes to fishing regulations and policy. The full report can be found here: [http://www.nmfs.noaa.gov/sfa/management/recreational/2014\\_summit/pre-summit\\_resources.html](http://www.nmfs.noaa.gov/sfa/management/recreational/2014_summit/pre-summit_resources.html). In February 2014, the Commission on Saltwater Recreational Fisheries Management published its report, A Vision for Managing America's Saltwater Recreational Fisheries, providing recommendations for management measures to address the needs of the recreational community (Morris and Deal 2014). The report can be found here: [http://asafishing.org/uploads/Marine\\_Visioning\\_Report\\_January\\_2014.pdf](http://asafishing.org/uploads/Marine_Visioning_Report_January_2014.pdf). Lastly, NMFS provided updates on the NS1 guidelines at Council Coordination Committee (CCC) meetings in 2013 and 2014. The CCC consists of the chairs, vice chairs, and executive directors from each regional Council, or other staff, as appropriate. This committee meets twice each year to discuss issues relevant to all Councils, including issues related to the implementation of the MSA. More information about CCC meetings can be found here: <http://>

[www.nmfs.noaa.gov/sfa/management/councils/ccc/ccc.htm](http://www.nmfs.noaa.gov/sfa/management/councils/ccc/ccc.htm).

### III. Goals and Objectives of Fishery Management Plans

The General section of the NS guidelines, 50 CFR 600.305, describes the purpose of the NS guidelines and the importance of identifying fishery management objectives within a FMP, and defines words that are used throughout the NS guidelines. This section was last revised in 1998 (63 FR 24211, May 1, 1998). More recently, stakeholders, Councils, and NMFS have recognized the importance of re-evaluating the management objectives of FMPs on a regular basis, because the needs of the fishery may change over time. Examples of re-evaluations include Council discussions over allocation of catch among sectors of the fishery, and visioning projects that several Councils have initiated to identify long-term objectives for its fisheries. Measureable goals and objectives are an integral part of the adaptive fishery management system used in the United States, where such metrics are used to measure the performance of the management actions taken by the Councils (see, e.g., Punt 2006; Hilborn 2007; Levin *et al.* 2009). To highlight the importance of having well-defined management objectives, and as part of NOAA's effort to carry out the President's directive in Executive Order 13563 to conduct retrospective analysis of existing significant regulations, NMFS proposes to add a statement to § 600.305(b) to recommend that Councils should reassess the objectives of their fisheries on a regular basis to reflect the changing needs of the fishery over time (see § 600.305(b)(2) of this proposed action). Similarly, NMFS proposes to recommend that Councils consider the management objectives of their FMPs and their management framework to determine the relevant factors to determine OY (see section X of the preamble and § 600.310(e)(3)(iii)(B) of this proposed action). NMFS chose not to proscribe a set time period for "a regular basis" in order to provide the Councils the flexibility to determine this time frame themselves; although no time frame is proscribed, Councils should provide notice to the public of their expected schedule for review. Given the scope and complexity of such a task, NMFS does not expect Councils to reassess their FMP objectives every few years; rather, some longer time frame which staggers the review of each FMP may be more appropriate. For example, limited access privilege programs (a type of catch share program) must be formally

reviewed 5 years after implementation and at least every 7 years thereafter. See 16 U.S.C. 1853a(c)(1)(G).

#### IV. Stocks That Require Conservation and Management

The MSA provides for Federal fishery management authority in the U.S. exclusive economic zone (EEZ), 16 U.S.C. 1801(b)(1), and provides that each Council shall prepare an FMP for each fishery under its authority that requires conservation and management. *Id.* section 1852(h)(1). In recent years, NMFS has received multiple legal challenges regarding which stocks should or should not be managed under an MSA FMP. NMFS does not believe that MSA section 302(h)(1) on its face directs preparation of an FMP for all fisheries in the EEZ and other MSA provisions support this view. See, e.g., *id.* section 1856(a)(3)(A) (authorizing a State to regulate a fishing vessel outside the boundaries of the State in certain circumstances, including when there is no Federal FMP or other applicable Federal regulations), and *id.* section 1881(a)(1)–(2) (authorizing information collection for purpose of “determining whether a fishery is in need of management.”). Legislative history for section 302(h)(1) affirms that “Councils are not required to prepare FMPs for every fishery within their geographical areas of authority.” See House Rep. No. 97–549, on insertion of language “in need of conservation and management” as part of the 1982 amendment of MSA reprinted in 1983 U.S.C.C.A.N. at 4339, (May 17, 1982).

The question is how a Council should determine whether a fishery requires or is in need of conservation and management. The MSA and current NS guidelines indirectly touch upon this issue in several places, but NMFS believes that consolidating, streamlining, and clarifying guidance in the General section of the NS guidelines would be beneficial. NMFS believes that it is appropriate that guidance on which stocks need conservation and management should be contained separately from the 10 National Standard guidelines as it would be the basis for implementation of all the National Standards.

MSA section 302(h)(1) and other related provisions refer to a “fishery” and “conservation and management.” A “fishery” is “(A) one or more stocks of fish which can be treated as a unit for purposes of conservation and management and which are identified on the basis of geographical, scientific, technical, recreational, and economic characteristics; and (B) any fishing for such stocks.” 16 U.S.C. 1802(13). The

first part of the definition is nearly identical to the MSA’s definition for “stock of fish”—“species, subspecies, geographical grouping, or other category of fish capable of management as a unit.” *Id.* section 1802(42). In other words, a “fishery” includes stocks of fish, as well as the people, vessels, gear, and other infrastructure that is designed to capture and process the stocks of fish. “Conservation and management” includes “all of the rules, regulations, conditions, methods, and other measures (A) which are required to rebuild, restore, or maintain, and which are useful in rebuilding, restoring, or maintaining, any fishery resource and the marine environment; and (B) which are designed to assure that— (i) a supply of food and other products may be taken, and that recreational benefits may be obtained, on a continuing basis; (ii) irreversible or long-term adverse effects on fishery resources and the marine environment are avoided; and (iii) there will be a multiplicity of options available with respect to future uses of these resources.” *Id.* section 1802(5).

When developing an FMP, a Council must, among other things, describe the fishery (e.g. species of fish involved) in the FMP. *Id.* section 1853(a)(2). An FMP must also be consistent with the 10 National Standards, *id.* section 1851(a), and contain conservation and management measures that are “necessary and appropriate for the conservation and management of the fishery to prevent overfishing and rebuild overfished stocks, and to protect, restore, and promote the long-term health and stability of the fishery.” *Id.* section 1853(a)(1)(A).

The addition of MSA section 303(a)(15), which requires that all FMPs establish mechanisms for specifying ACLs and AMs, led to the most recent revision of the NS1 guidelines in 2009 (74 FR 3178, Jan. 16, 2009). The 2009 NS1 guidelines interpreted this requirement to mean that stocks and stocks complexes “in the fishery” need ACLs and AMs. The 2009 NS1 guidelines explained that as a default, all stocks in an FMP are considered “in the fishery” unless the Council identifies them as an ecosystem component (EC) species. FMPs are required to provide the mandatory measures described in MSA section 303(a), including ACLs and AMs, for only those “stocks in the fishery.” Although NMFS’ interpretation has been that “stocks in the fishery” are in need of “conservation and management,” the NS1 guidelines do not specifically address the determination of whether a stock is in need of conservation and management.

The NS3 Guidelines address structuring appropriate management units for stocks and stock complexes and instruct that the choice of a management unit depends on the focus of the FMP’s objectives, and may be organized around biological, geographic, economic, technical, social, or ecological perspectives. 50 CFR 600.320(d)(1). The NS3 guidelines also state that a management unit may contain stocks for which data is not available to specify MSY and OY or to establish management measures, so that data on those stocks may be collected.

The NS7 guidelines state that MSA 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. 50 CFR 600.340(b)(2). The NS7 Guidelines provide seven criteria for determining whether a fishery needs management through regulations implementing an FMP. *Id.*

In this action, NMFS proposes a new section specifically regarding “stocks that require conservation and management” (see proposed § 600.305(c)). Any stocks that are predominately caught in Federal waters and are overfished or subject to overfishing, or likely to become overfished or subject to overfishing, would be considered to require conservation and management and therefore must be included in an FMP (see proposed § 600.305(c)(1)). See 16 U.S.C. 1853(a)(1)(A) (requiring that FMPs contain conservation and management measures that are necessary “to prevent overfishing and rebuild overfished stocks”). Proposed sections 600.305(c)(1)(i)–(x) set forth factors<sup>1</sup> to be considered in all other situations when determining a conservation and management need:

- (1) The stock is an important component of the marine environment.
- (2) The stock is caught by the fishery.
- (3) Whether an FMP can improve or maintain the condition of the stocks.
- (4) The stock is a target of a fishery.
- (5) The stock is important to commercial, recreational, or subsistence users.
- (6) The fishery is important to the Nation and to the regional economy.
- (7) The need to resolve competing interests and conflicts among user

<sup>1</sup> The list of factors are based on concepts from the current NS1 guidelines (see § 600.305(c)(2)(ii) and (iv) of this proposed action), the NS7 guidelines (see § 600.305(c)(2)(iii), (vi)–(x) of this proposed action), the MSA definition of conservation and management (see § 600.305(c)(2)(i) of this proposed action), and other provisions of the MSA (see § 600.305(c)(2)(v) of this proposed action).

groups and whether an FMP can further that resolution.

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

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

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

When considering adding a new stock to an FMP or keeping an existing stock within an FMP, Councils should prepare a thorough analysis of the factors, and any additional considerations that may be relevant to the particular stock. No single factor is dispositive, but Councils should consider weighting the factors as follows. Factors (i–iii) should be considered first, as they address maintaining a fishery resource and the marine environment. *See* section 1802(5)(A). These factors weigh in favor of including a stock in an FMP. Councils should next consider factors (iv–ix), which set forth key economic, social, and other reasons contained within the MSA for an FMP action. *See* 16 U.S.C. 1802(5)(B). Regardless of whether any of the first nine factors indicates a conservation and management need, a Council should consider factor (x) before deciding to include or maintain a stock in an FMP. In many circumstances, adequate management of a fishery by states, state/Federal programs, or another Federal FMP would weigh heavily against a Federal FMP action. *See, e.g.,* 16 U.S.C. 1851(a)(7); 1856(a)(3). In evaluating the above criteria, a Council should consider the specific circumstances of a fishery, based on the best scientific information available; to determine whether there are biological, economic, social and/or operational concerns that can be addressed by Federal management.

For stocks that do not require conservation and management, consistent with the current NS1 guidelines at 50 CFR 600.310(d)(5)(iii), proposed § 600.305(c)(3) would allow councils to continue to include such stocks in FMPs as ecosystem component (EC) species to collect data, minimize bycatch and bycatch mortality consistent with NS9, protect their associated role in the ecosystem, or for other reasons. *See also* 16 U.S.C. 1853(b)(12) (providing Councils the

discretion to “include management measures in the plan to conserve target and non-target species and habitats, considering the variety of ecological factors affecting fishery populations”).

Consistent with the current NS1 guidelines at 50 CFR 600.310(d)(7), proposed § 600.305(c)(4) would continue to provide that, where stocks may be identified in more than one FMP, Councils should choose which FMP will be the primary FMP in which reference points for the stock are established. In other FMPs, the stock may be identified as “other managed stocks” and management measures that are consistent with the objectives of the primary FMP can be established. Proposed § 600.305(c)(5) provides that Councils should, periodically, review their FMPs and the best scientific information available and determine if stocks are appropriately identified and if the FMP is meeting the conservation and management needs of their fisheries.

Because proposed § 600.305 consolidates text from several NS guidelines provisions, NMFS would make the following edits for consistency or to eliminate duplication:

- Move the definition of “target stock” from the current NS1 guidelines to the general definitions at proposed § 600.305(d)(11), and remove the definition of “stock and stock complexes” at § 600.305(c)(12).
- Remove the description of and use of the terms “in the fishery” and remove the criteria for “ecosystem component species” in the NS1 guidelines (see § 600.310 of this proposed action).
- Consistent with proposed §§ 600.305(c)(1)–(5), revise the NS1 guidelines at proposed § 600.310(d)(1) to state that stocks in need of conservation and management must have ACLs, other reference points, and accountability measures; but that other stocks identified within an FMP (*i.e.*, ecosystem component species and stocks primarily managed under another FMP) do not require these measures.
- Revise the NS3 guidelines to specify that stocks in the “management unit” are considered to require conservation and management (see § 600.320(d) of this proposed action).
- Remove current NS3 guidelines text at § 600.320(d)(1)(i)–(vi) which provides some cursory examples of ways to organize a management unit because proposed § 600.305(c)(1) now sets forth the factors to consider when deciding whether stocks require conservation and management.
- Revise current NS3 guidelines text at § 600.320(d)(2), which state that a management unit may contain, in

addition to regulated species, stocks of fish which there is not enough information available to specify MSY and OY, or to establish management measures, so that data for one of these species may be collected under the FMP. The new guidelines would state that a management unit may contain stocks of fish for which there is not enough information available to specify MSY and OY or their proxies. Even if data are not available to specify MSY and OY or their proxies, that is not a reason to determine that a stock does not require conservation and management.

- Remove § 600.340(b) of the current NS7 guidelines as the majority of that guidance has been captured in the description of factors to consider under proposed § 600.305(c).

NMFS believes that the proposed revisions to § 600.305 and the NS1, NS3, and NS7 guidelines will not require Councils to revise their existing FMPs. NMFS is aware that Councils have identified stocks in their FMPs as “management unit species” or “stocks in the fishery.” Councils can still continue to use those terms and NMFS presumes that the stocks that have been identified as “management unit species” or “stocks in the fishery” are stocks that are in need of conservation and management and are required to have ACLs, other reference points, and AMs as described in the proposed revisions to the NS1 guidelines (see § 600.310(d)(1) of this proposed action) unless the two statutory exceptions apply (see § 600.310(h) of this proposed action).

#### V. Data Limited Stocks

Establishing ACLs for data-limited stocks can be challenging. In data-limited situations there remains a high degree of uncertainty in determining the appropriate catch level for the fishery, leading some to believe that ACLs for data-limited stocks are overly restrictive, and others to argue that they should be reduced further to limit the chance of overfishing. NMFS continually strives to advance the science that informs fisheries management. Over time, scientific information and stock assessment methods have improved, and NMFS has increased the number of stocks with stock assessments. However, NMFS acknowledges that the status of many stocks is unknown. Since passage of the ACL requirements, scientists have developed tools to evaluate and manage data-limited stocks. Some include catch based methods, depletion based methods, or abundance based methods (Carruthers *et al.* 2014).

MSA section 303(a)(3) requires that FMPs assess and specify MSY. NMFS acknowledges that it may not be possible, based on the best scientific information available, to estimate MSY (as defined in the NS1 guidelines at § 600.310(e)(1)(i)) or MSY based proxies for some stocks. In such instances, proposed § 600.310(e)(2)(ii) provides that when data are not available to specify status determination criteria (SDCs) based on MSY or MSY proxies, alternative types of SDCs that promote sustainability of the stock or stock complex can be used. NMFS proposes adding to the examples provided for circumstances that may not fit the standard approaches for establishing reference points pursuant to the NS1 guidelines to address situations where data are not available to either set reference points based on MSY or MSY proxies, or manage to reference points based on MSY or MSY proxies (see § 600.310(h)(2) of this proposed action). However, note that § 600.310(h)(2) does not provide an exemption from any statutory requirements, including the requirement to establish ACLs; rather, it provides flexibility in the application of the NS1 guidelines. NMFS notes that existing § 600.310(h)(3) describes that one of the limited circumstances that may not fit the standard approaches to specification of reference points is harvests from aquaculture operations (e.g., Gulf of Mexico Aquaculture FMP).

#### VI. Stock Complexes and Indicator Stocks

Stocks that require conservation and management can be grouped into stocks complexes and managed within a FMP. Stocks may be grouped into complexes for various reasons. For example, stock complexes may be useful tools when stocks in a multispecies fishery cannot be targeted independent of one another, when there is insufficient data to measure a stock's status relative to its SDC, or when it is not feasible for fishermen to distinguish individual stocks among their catch. In 2009, the NS1 guidelines defined stock complexes to mean a group of stocks that are sufficiently similar in geographic distribution, life history, and vulnerabilities to the fishery such that the impact of management actions on the stocks is similar. 50 CFR 600.310(d)(8). However, this definition potentially limits the applicability of stock complexes in many of the circumstances in which they may be most useful, such as situations where stocks in a multispecies fishery cannot be targeted independent of one another, or when it is not feasible for fishermen to distinguish individual stocks among

their catch. Under these circumstances, stock complexes may not have similar life histories and vulnerabilities. To resolve this issue, NMFS is proposing to define stock complex more generally as a tool to manage groups of stocks within a FMP (see § 600.310(d)(2) of this proposed action) with consideration of geographic distribution, life history characteristics, and vulnerabilities to fishing pressure such that the impact of management actions on the stocks is similar (see § 600.310(d)(2)(i) of this proposed action).

Stock complexes are often created when there is not enough information to set reference points at the individual stock level. Therefore, the status of individual stocks within a complex is generally unknown. The current NS1 guidelines note that stock complexes can be comprised of many different combinations of indicator stocks and other stocks. In practice, few stock complexes are managed with indicator stocks. One reason for the dearth of indicator stocks is that, once a stock within a complex is assessed, it is often taken out of the complex and managed separately, rather than serving as the indicator for the complex. The current NS1 guidelines, while endorsing the use of indicator stocks, may be inadvertently contributing to the removal of assessed stocks from complexes by stating that MSY should be estimated on a stock-by-stock basis, whenever possible. §§ 600.310(d)(8) and (e)(1)(iii). To encourage the use of indicator stocks in stock complexes, NMFS is proposing to delete the aforementioned text in §§ 600.310(d)(8) and (e)(1)(iii). The proposed NS1 guidelines state that, where practicable, stock complexes should be comprised of one or more indicator stocks, each of which has SDC and ACLs (see § 600.310(d)(2)(ii)(B) of the proposed rule). These revisions are intended to reduce the practice of removing a stock from a complex once it has been assessed, so that the assessed stock can be used as an indicator for the complex, if it is practicable to do so. The revisions also help alleviate some of the discontinuities in how data-limited stock complexes are managed compared to data-rich multi-species fisheries. In mixed-stock fisheries, biological reference points are often specified for several of the stocks within the fishery and management measures are developed to prevent overfishing of each stock. Management measures for stocks that have lower productivities will restrict fishing effort for the overall mixed-stock fishery to some extent. However, in stock complex management

the status of stocks within a complex is generally unknown and complexes often lack indicator species. Therefore, it possible that stocks that have lower productivities in the complex may experience occasional overfishing, since the status of these stocks are unknown. Encouraging the use of indicator species will likely reduce the probability that stocks within the complex could experience overfishing or become overfished. This is because the use of an indicator enhances the ability to discern the status of the complex, especially if the complex is of similar geographic distribution, life history, and vulnerabilities to the fishery such that the impact of management actions on the stocks is similar.

#### VII. Aggregate Maximum Sustainable Yield (MSY) Estimates

MSA section 303(a)(3) requires that each FMP include an estimate of MSY and OY for the fishery. The current NS1 guidelines do not provide guidance on describing MSY at the fishery level, but encourage specifying MSY at the stock level, while allowing it to be set for stock complexes. The current NS1 guidelines state that OY can be specified for a stock, stock complex, or fishery. In practice, Councils typically set MSY and other reference points for individual stocks when the data is available to do so. In data-limited situations, when it is not possible to specify single species reference points, stocks are often grouped into complexes.

A growing body of literature on ecosystem-based fisheries management has emphasized the importance of accounting for species interactions and environmental variability within fisheries management. Councils are increasingly working toward developing ecosystem-based fisheries management programs. These ecosystem-based considerations can be incorporated in a number of ways, including single species stock assessments and models that estimate MSY for an aggregate group of stocks. The phrase "aggregate group of stocks" refers to a group of stocks, such as: a stock complex; all of the stocks caught within a fishery; or some sub-component of a fishery. To further facilitate the Councils' use of ecosystem approaches to management, the proposed revisions to the NS1 guidelines introduce the concept of aggregate MSY estimates and describe how the concept can be used as an optional tool in fisheries management. In this action, NMFS would revise § 600.310(e)(1) to state that MSY may be specified for the fishery as a whole. Proposed § 600.310(e)(1)(iv) further

provides that estimating aggregate level MSY for a group of stocks can be done using models that account for multi-species interactions, composite properties for a group of similar species, common biomass (energy) flow and production patterns, or other relevant factors. In addition, NMFS proposes adding a paragraph to the OY section of the NS1 guidelines to note that aggregate level MSY estimates can be used as a basis for specifying OY for a fishery (see § 600.310(e)(3)(iv)(C) of this proposed action). When aggregate level MSY is estimated, single stock MSY estimates can be used to inform single stock management. For example, OY could be specified for a fishery, while other reference points are specified for individual stocks in order to prevent overfishing on each stock within the fishery. Lastly, NMFS proposes to encourage the incorporation of environmental information into stock assessments by noting that environmental information (*e.g.*, salinity, temperature), in addition to ecological information (*e.g.*, predator-prey interactions), should be taken into account, to the extent practicable, when assessing stocks and specifying MSY (see § 600.310(e)(1)(v)(C) of this proposed action).

#### VIII. Developing a Definition for “Depleted”

The MSA defines the terms overfished and overfishing together as “a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the MSY on a continuing basis.” 16 U.S.C. 1802(34). The NS1 guidelines define overfishing and overfished separately, where the term “overfishing” refers to the fishing mortality rate or total catch, and the term “overfished” refers to a biomass condition. 50 CFR 600.310(e)(2)(i)(B) and (E). The NS1 overfished definition, unlike the statutory definition, gives no consideration to the “rate or level of fishing mortality” when determining if a stock is overfished. Rather the criteria to determine an overfished status, called the minimum stock size threshold (MSST), is defined as the level of biomass below which the stock or stock complex is considered to be overfished. Therefore, a stock may be determined to be overfished when overfishing has not occurred. Stakeholders have noted that the term “overfished” implies that fishing is the sole cause for a decline in stock biomass, when factors such as habitat and other environmental conditions may bear greater responsibility for the stock’s biomass decline. Similarly, the 2013 NRC report recognized that the rate at which a fish

stock rebuilds depends on ecological and other environmental conditions such as climate change, in addition to the fishing-induced mortality. However, separating out the impacts of environmental change from the impacts of fishing on a stock is a difficult task.

To address these concerns, NMFS proposes adding the term “depleted” to the NS1 guidelines to describe those stocks whose biomass has declined as a result of habitat and other environmental conditions, as opposed to fishing pressure. The proposed revision to the guidelines state that an overfished stock or stock complex is considered depleted when it has not experienced overfishing at any point over a period of two generation times of the stock and its biomass has declined below MSST, or when a rebuilding stock or stock complex has reached its targeted time to rebuild and the stock’s biomass has shown no significant signs of growth despite being fished at or below catch levels that are consistent with the rebuilding plan throughout that period (see § 600.310(e)(2)(i)(F) of this proposed action). The time periods chosen (*i.e.*, two generation times and targeted time to rebuild) were chosen because: (1) They will scale with the productivity of the stock rather than being a fixed time period that is applied to all stocks, and (2) they are of a sufficient time period to allow fisheries scientists to easily separate out the impacts of environmental change from the impacts of fishing on a stock, given the requirements of not overfishing or exceeding catch levels that are consistent with the rebuilding plan during those time periods. Rebuilding plans would still be required for depleted stocks and Councils could consider additional measures for these stocks such as a re-evaluation of their SDCs to determine if they are representative of the current environmental conditions, restoration of habitat, identification of research priorities, or partnerships with other agencies to address non-fishing related impacts (see § 600.310(j)(6) of this proposed action).

Additionally, NMFS proposes minor revisions to the definitions of “overfished” and “MSST” to improve clarity and reduce redundancy, and to clearly show that the MSST is a reference point used to determine if a stock is overfished (see § 600.310(e)(2)(i)(G) of this proposed action). These revisions together will not result in any change to how the terms ‘overfished’ and ‘MSST’ are used; the revisions are proposed only to improve clarity in the definitions.

#### IX. Developing an Alternative Definition of Overfishing To Include a Multi-Year Approach

The MSA defines “overfishing” as a “rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the MSY on a continuing basis.” 16 U.S.C. 1802(34). The MSA does not specify a timeframe for determining overfishing, but the current NS1 guidelines state that overfishing should be determined by comparing annual rates of fishing mortality (F) to the maximum fishing mortality threshold (MFMT) or annual catch to the overfishing limit (OFL). 50 CFR 600.310(e)(2)(i)(B)–(C). In either case, under the current guidelines, overfishing determinations are made for the most recent year for which there is information. For example, if the F-based approach is used, the last available year of data in a stock assessment will be used to determine whether a stock will be declared subject to overfishing.

NMFS first adopted an annual approach to overfishing in its 1998 revision to the NS Guidelines. See 63 FR 24212, May 1, 1998. In those revisions, NMFS required Councils to establish status determination criteria for determining overfishing; in particular, NMFS required the establishment of a MFMT. Fishing in excess of the MFMT for a period of 1 or more years would constitute overfishing (63 FR 24230). Prior to these revisions, NMFS had deliberately chosen not to “mandate a particular form for all specific overfishing definitions,” leaving it to the discretion of the Councils to decide how to determine if overfishing was occurring. See 54 FR 30826, 30829 (response to comment 7), July 24, 1989. NMFS based the decision to take a more prescriptive approach in 1998 on the legislative changes made by Congress in the 1996 amendments to the MSA, which NMFS viewed as changing the statute’s emphasis on and timeframe for addressing overfishing. See 63 FR 24215 (response to comment 2), May 1, 1998. When Congress amended the MSA in 2007 to add new ACL and AM requirements, NMFS revised its requirements for SDCs, providing the option to Councils to either compare annual fishing mortality rates against the MFMT or the annual level of catch against the OFL. 50 CFR 600.310(e)(2)(i)(B)–(C); see also 74 FR 3192 (response to comment 27), Jan. 16, 2009, (describing relative advantages of each methodology).

These current methods for determining overfishing do not consider the extent to which F exceeded the MFMT or catch exceeded the OFL. For

many stocks, a small amount of fishing effort above MFMT or catch in excess of OFL in a single year may not jeopardize the stocks' ability to produce MSY over the long term, though for other stocks a small overage may be significant. Another concern with the current approach of comparing F to MFMT, is that the terminal year's estimate of F in a stock assessment is often more uncertain than the estimates of F in prior years (NRC 1998). In some cases, subsequent assessments have revised the previous assessment's terminal year's estimate of F to a much greater degree than the prior years' estimates of F.

To address this issue, NMFS is proposing to give Councils the option to use a method for determining the overfishing status of a stock that is based on a multi-year approach (that may not exceed 3 years) that examines whether a stock's ability to produce MSY over the long term has been jeopardized (see § 600.310(e)(2)(ii)(A) of the proposed action). The proposed revisions to the NS1 guidelines would still allow Councils to have overfishing SDCs that are based on single year comparisons of F to MFMT or catch to OFL. A Council may develop overfishing SDCs that use a multi-year approach, so long as it provides a comprehensive analysis based on the best scientific information available that supports that the approach will not jeopardize the capacity of the fishery to produce the MSY on a continuing basis. The rationale for choosing 3 years as a maximum, versus some shorter or longer time period, was based on the fact that many stocks (57 percent) are assessed every 1, 2, or 3 years. Thus it is NMFS's assumption that using a 2- or 3-year time period will be sufficiently long as to capture the recent impacts of fishing on a stock and help smooth out retrospective bias in our understanding of stock status. Additionally, using a 2- or 3-year time period will dampen the effects of outliers within the data and help provide a more consistent determination of when the capacity of the stock to produce MSY on a continuing basis has been jeopardized. A single year's data point may not reflect the overall status of the stock. Were Councils to use a longer time period, there could be a longer delay between exceeding limit reference points and a subsequent management response, which could jeopardize the stocks ability to produce MSY on a continuing basis.

Although the current approach to single year overfishing determinations has been in place since 1998 and has the benefit of simplicity in calculation and

use, NMFS believes that multi-year overfishing SDCs can, in appropriate cases, be used effectively to protect the stock while providing stability to the fishery. Multi-year overfishing SDCs, if used, would be based on the best scientific information available and would not impact the timeliness of Council and agency response to any overfishing. ACL and AM mechanisms are in place for all fisheries, and they would continue to constrain fishing mortality on an annual basis. The multi-year approach would only be used for overfishing determinations, where the focus appropriately is on the impact of fishing over a set period of time and the capacity of the stock to produce MSY.

#### **X. Revising Optimum Yield (OY) Guidance**

The MSA defines OY as an "amount of fish which: (A) 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; (B) is prescribed as such on the basis of the maximum sustainable yield from the fishery, as reduced by any relevant economic, social, or ecological factor; and (C) in the case of an overfished fishery, provides for rebuilding to a level consistent with producing the maximum sustainable yield in such fishery." 16 U.S.C. 1802(33). Setting and describing OY continues to be a challenge for fishery managers. OY is specified in several different ways by Councils (e.g., the catch corresponding to 75 percent of  $F_{msy}$ , all catch harvested pursuant to the FMP, OY is less than or equal to ABC, etc.), and the economic, social, and ecological factors required to be considered in the specification of OY are often not explicitly described by Councils. The proposed revisions to the NS1 guidelines (see § 600.305(e)(3) of this proposed action) are intended to provide greater clarity and guidance to the Councils in how to determine and specify OY. Once specified, OY may be achieved by different management programs.<sup>2</sup>

Prior to the requirement for ACLs, the concept of treating OY as a target was prominent in fisheries management. The Sustainable Fisheries Act, passed in 1996, revised the definition of OY to its current definition—notably these revisions required that OY can only be reduced from MSY upon consideration of any relevant economic, social or ecological factors. When NMFS revised

the NS1 guidelines in 1998 (63 FR 24212, May 1, 1998), OY was described as a target reference point which should be set safely below limit reference points, and preference was placed on specifying OY in terms of numbers or weight of fish. Councils were encouraged to specify OY control rules, and Restrepo *et al.* (1998) recommended a default OY control rule of fishing at 75 percent of  $F_{msy}$ . After passage of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, NMFS revised the NS1 guidelines to provide guidance on implementing ACLs (74 FR 3178, Jan. 16, 2009). With the requirement for setting OFL, ABC, and ACLs in fisheries, the concept of specifying OY as an annual target became less relevant. However, OY remains a key concept and requirement of the MSA, and NMFS believes that further revisions to the NS1 guidelines may assist Councils in better specifying and integrating OY into their management regimes.

NMFS received many comments in response to the ANPR requesting that NMFS provide further guidance to the Councils on addressing the economic, social, and ecological factors used in determining OY. NMFS believes that one impediment to Councils addressing these factors is the perception that the Councils must quantify their analysis of these factors. Such an analysis may not be possible in all cases, so NMFS proposes revising § 600.310(e)(3)(iv)(A) to provide that where it is not possible to specify OY quantitatively, Councils may instead provide a qualitative description of OY that explains how OY accounts for the economic, ecological, and social factors that are important to the fishery.

In the comments received on the NS1 ANPR, several stakeholders asked for clarification of the relationship of OY to the ACL framework—a relationship that is not discussed in the current guidelines. In response to these comments, proposed § 600.310(f)(4)(iv) of the NS1 guidelines includes a new explanation of the relationship between OY and the ACL framework. The dual goals of NS1 are to prevent overfishing and achieve OY on a continuing basis. The ABC is an upper limit on catch and is designed to prevent overfishing. ACLs (or ACTs if used) can be reduced from ABC based upon OY considerations for the fishery. Additionally, economic, social, or ecological trade-offs may be evaluated when determining the risk policy for an ABC control rule.

While OY is a long-term average amount of desired yield, there is, for each year, an amount of fish that is

<sup>2</sup> The proposed rule does not revise the regulatory text at § 600.310(e)(3)(i)(B) (describing achievement of OY) except for minor grammatical corrections.

consistent with achieving the long-term OY. A Council can choose to express OY on an annual basis, in which case the FMP or FMP amendment should indicate that the OY is an “annual OY.” An annual OY cannot exceed the ACL. If there is a desire to obtain a yield that is higher than the ACL, then a Council needs to determine if a change in the management regime (e.g., improved data collection to reduce scientific and management uncertainty, minimized bycatch in mixed-stock fisheries, etc.) is needed in order to increase yield.

NMFS proposes to remove current § 600.310(e)(3)(v)(C) (which states that all catch must be counted against OY, including that resulting from bycatch, scientific research, and all fishing activities) and instead incorporate the concept within § 600.310(e)(2)(ii)(C) of the proposed action by stating that where practicable, all sources of mortality should be accounted for in the evaluation of stock status. The current language implies that catch accounting occurs at the level of OY, while in practice it typically occurs at the level of the ACL. However, the concept of accounting for all sources of mortality is critical to fisheries management; therefore NMFS proposes to retain the concept but incorporate it within the guidance on SDCs. NMFS uses the term “where practicable” because it recognizes that data on scientific research catch may not always be available. To the extent that data is available on scientific research catch, it should be accounted for within the system of reference points. For example, it could be accounted for within stock assessments, as a set-aside within the ACL framework, or by other methods.

NMFS is also proposing minor revisions and consolidations of redundant guidance. To remove repetition and improve clarity, NMFS proposes merging the guidance on determining the greatest benefits to the Nation and the considerations for economic, ecological, and social (EES) factors (currently contained in § 600.310(e)(3)(ii)–(iv)) together into a paragraph on assessing OY (see § 600.310(e)(3)(iii)(A) and (B) of the proposed action). Both are important for assessing OY. Additionally, NMFS proposes minor revisions to the guidance on the total allowable level of foreign fishing and domestic annual harvest at § 600.310(e)(3)(v)(D) and (H) to improve clarity and consolidate it with the rest of the guidance on foreign fishing (see § 600.310(e)(3)(v)(A) and (B) of this proposed action). NMFS also proposes removing § 600.310(e)(3)(v)(G) (stating that there should be a mechanism in the FMP for periodic

reassessment of OY), and instead explain in proposed § 600.310(e)(3)(iii) that, consistent with MSA section 302(h)(5), the assessment and specification of OY should be reviewed on a continuing basis, so that it is responsive to the changing circumstances in the fishery. Lastly, NMFS proposes that for internationally managed stocks, fishing levels that are agreed upon by the U.S. at the international level are consistent with achieving OY (see § 600.310(e)(3)(iv)(D) of this proposed action).

#### **XI. Acceptable Biological Catch and Annual Catch Limit Guidance**

In general, NMFS proposes revisions to the guidance regarding ABC in section § 600.310(f) to minimize redundancy and improve clarity. For example, the ABC control rule (§ 600.310(f)(4)) was moved forward in the guidelines (see § 600.310(f)(2) of this proposed action) so that the guidance on ABC control rules is provided before the guidance on specifying ABC, and statements about providing a proxy for the uncertainty in estimate of MSY (§ 600.310(e)(1)(v)) was moved to the ABC control rule section of the guidelines to consolidate guidance on accounting for uncertainty (see § 600.310(f)(2)(ii) of this proposed action). More substantial revisions to the ABC guidance are listed below.

##### *Definitions*

NMFS proposes to modify the definition of the annual catch limit (ACL) to improve clarity. The ACL is currently defined as the level of annual catch of a stock or stock complex that serves as a basis for invoking AMs. ACL cannot exceed the ABC, but may be divided into sector-ACLs. 50 CFR 600.310(f)(2)(iv). This definition, while accurate, failed to include reference to the fact that an ACL is a limit on the total annual catch for a stock or stock complex. NMFS proposes clarifying that an ACL is a limit on the total annual catch for a stock or stock complex, which cannot exceed the ABC, that serves as the basis for invoking AMs. An ACL may be divided into sector-ACLs (see § 600.310(f)(1)(iii) of this proposed action).

NMFS also proposes adding three new definitions for the following terms: control rule, management uncertainty, and scientific uncertainty (see § 600.310(f)(1)(iv)–(vi) of this proposed action). These terms are currently used throughout the guidelines, but were never separately defined. To reduce redundancy, NMFS proposes deleting the ABC control rule and ACT control rule definitions, since these definitions

were very similar to the definitions of ABC and ACT, and there is a more general definition of control rule provided. Lastly, NMFS is proposing to move the definition of “ACT” to § 600.310 (g)(4) of this proposed rule, because ACTs are a type of AM, and thus better suited in the AMs section of the guidelines.

##### *Acceptable Biological Catch (ABC) Risk Policy*

Section 302(g)(1)(B) of the MSA states that the Scientific and Statistical Committee (SSC) for each Council shall provide its Council with ongoing scientific advice for fishery management decisions, including recommendations for ABC. 16 U.S.C. 1852(g)(1)(B). In 2009, the NS1 guidelines described ABC as the level of a stock or stock complex’s annual catch that accounts for the scientific uncertainty in the estimate of the overfishing limit and any other scientific uncertainty, and should be specified based on the ABC control rule. When these provisions began to be implemented in 2009, Councils were uncertain as to whether or not the SSC could specify the ABC without input from the Council on its risk preferences. At that time, NMFS referred Councils and their SSCs to the response to comments section of the 2009 final guidelines, which noted that the “SSC must recommend an ABC to the Council after the Council advises the SSC what would be the acceptable probability that a catch equal to the ABC would result in overfishing. This risk policy is part of the required ABC control rule.” 74 FR at 3191–92 (response to comment 42), Jan. 16, 2009. NMFS also addressed this issue within its NS1 guidelines frequently asked questions document, which was published online ([http://www.nmfs.noaa.gov/sfa/laws\\_policies/national\\_standards/ns1\\_resources.html](http://www.nmfs.noaa.gov/sfa/laws_policies/national_standards/ns1_resources.html)).

When the NS1 provisions began to be implemented in 2009, Councils were interested in using alternative methods to specify ABC, which were not based on “the probability that an actual catch equal to the stock’s ABC would result in overfishing” even though such an approach could be calculated. In particular, in their comment to the NS1 ANPR, the North Pacific Council expressed interest in using a decision theoretic approach, which is similar in concept but is not the same as the probabilistic approach (Thompson 2011). Thompson (2011) suggests that the use of a decision theoretic approach may actually be more effective at accounting for scientific uncertainty than the recommended probabilistic approach.



To address the above issues, NMFS is proposing revisions to existing guidance on ABC control rules to state that the Council's risk policy could be based, on an acceptable probability (at least 50 percent) that catch equal to the stock's ABC will not result in overfishing, but other appropriate methods can be used. When determining the risk policy, Councils could consider the economic, social, and ecological trade-offs between being more or less risk averse. (See § 600.310(f)(2)(i) of this proposed action.) References to the Council's risk policy were also included in the definition of ABC (see § 600.310(f)(1)(ii)).

#### *Phase-In ABC Control Rules*

In practice, the management system described in the NS1 guidelines has led managers to adjust ABCs and ACLs in lock-step with assessment results through the use of control rules. A manager's understanding about the status of a stock may change from one assessment to another, but some of that change could be due to scientific uncertainty. Scientific uncertainty, particularly regarding the data from the most recent years within the assessment, can produce perceived fluctuations in stock abundance that do not match the actual, but unknown, status of the stock (NRC 1998). In the time period between stock assessments, Councils often hold ACLs constant because, absent stock forecasts, information is lacking on which to justify changes to the ACL. The result is that an ACL could be left unchanged for several years when there is no assessment update, but upon completion of a new assessment, reference points could change dramatically (Methot 2014). This type of dramatic change could be the result of a changed understanding of the stock or due to a change in the level of scientific uncertainty; it may be extremely difficult to parse the cause of such changes.

Making large reductions in catch limits to prevent overfishing may cause negative short-term impacts on fishery participants, while large increases in catch limits due to a favorable assessment result may have negative short-term impacts by flooding markets and reducing profitability. Patrick *et al.* (2013) has also shown that management uncertainty (*i.e.*, the inability of managers to control catch) increases when quotas vary substantially (*i.e.*, >20 percent) from year to year. The ability to make ACL adjustments that provide more stability to fishing participants, yet do not jeopardize the capacity of the stock or stock complex to produce MSY

on a continuing basis, would be useful to Councils.

NMFS proposes revising the NS1 guidelines to allow Councils to develop an ABC control rule that would phase in changes to the ABC over a period of time not to exceed 3 years, so long as overfishing is prevented (see § 600.310(f)(2)(ii)(A) of this action). The rationale for choosing 3 years is similar to that described in Section IX of this preamble. For example, choosing a shorter time frame may not be that helpful in stabilizing catches, while a longer time frame that spans multiple stock assessments does not seem logical or transparent.

Phase-in approaches to management are currently being used successfully elsewhere in the world. For example, the International Pacific Halibut Commission (IPHC) currently adjusts its quotas according to a "slow up/full down" policy. Under IPHC policy, 1/3 of the indicated annual increases are taken and 100 percent of decreases are taken (Hare and Clark 2008, Hare 2011). Similarly, multi-annual plans for some European Union marine fisheries limit annual change in catch quota to 15 percent (Marchal *et al.* 2009). When fishing effort needs to be reduced in the fishery, using a phase-in approach will likely result in the use of a less risk averse ABC control rule; whereas, when fishing effort can be increased in the fishery, a phase-in approach will likely result in a more risk averse ABC control rule. For example, if a 15 percent reduction is needed to set the ABC at the Council's preferred level of risk (*i.e.*, using the Council's regular ABC control rule), using the phase-in control rule, a Council could incrementally reduce the ABC by 5 percent each year over a period of 3 years, and still prevent overfishing. Alternatively if a 15 percent increase is allowed, using the phase-in control rule a Council could incrementally increase the ABC by 5 percent each year over a period of 3 years. To ensure that phase-in ABC control rules do not lead to overfishing, NMFS also proposes that Councils must provide a comprehensive analysis of the control rules and articulate within an FMP or FMP amendment when a phase-in ABC control rule can and cannot be used and demonstrate how the control rule prevents overfishing (see § 600.310(f)(2)(ii) of this action).

#### *Carry-Over ABC Control Rules*

The term carry-over is often used in the context of catch share programs, where unused allocation from one year can be carried over to the next. Historically, carry-over provisions have allowed fishermen to carry over a

portion of the quota they had available at the end of the year. Carry-over provisions can reduce the likelihood that quotas are exceeded by minimizing incentives to catch every last pound. Similarly, carry-over provisions can relieve pressure on fishermen to fish in potentially unsafe conditions to ensure full utilization of quota. The amount of carry-over historically allowed has been relatively small compared to the total ACL, and could well be offset, in a typical year, with under-harvest by other fishermen.

Some Councils have expressed interest in carrying over significant levels of catch that could result in the previously specified ACL and in some cases the ABC being exceeded. The NS1 guidelines currently do not provide any guidance regarding carry-over. In *Conservation Law Foundation v. Pritzker*, the U.S. District Court for the District of Columbia found that Framework 50 of the Northeast Multispecies FMP violated the MSA by allowing sectors to carry over unused catch in an amount that would exceed the SSC's recommendation of ABC for several stocks. The court held that MSA section 302(h)(6) requires that carryover plus ACLs cannot exceed a stock's specified ABC. Consistent with this court decision, NMFS proposes revising the NS1 guidelines at proposed § 600.310(f)(2)(ii)(B) to state that an ABC control rule may include provisions for carry-over of some of the unused portion of the ACL from one year to increase the ABC for the next year, based on increased stock abundance resulting from the fishery harvesting less than the full ACL. The resulting ABC recommended by the SSC must prevent overfishing and consider scientific uncertainty consistent with the Council's risk policy. In cases where an ACL has been reduced from the ABC, carry-over provisions may not require the ABC to be re-specified if the ACL can be adjusted upward so that it is equal to or below the existing ABC. Like phase-in control rules, to ensure that carry-over ABC control rules do not lead to overfishing, NMFS proposes that Councils must provide a comprehensive analysis and articulate within an FMP or FMP amendment when a carry-over ABC control rule can and cannot be used and demonstrate how the control rule prevents overfishing (see § 600.310(f)(2)(ii) of this proposed action).

## **XII. Accountability Measures**

NMFS proposes minor revisions to consolidate and clarify the guidance on accountability measures (see § 600.310(g) of this proposed action).

NMFS proposes moving the guidance on ACT and ACT control rules from current paragraph (f) into the section of the guidelines that provides guidance on accountability measures (see § 600.310(g)(4) of this proposed action), as ACTs and ACT control rules are types of accountability measures. NMFS is also proposing to simplify the guidance on ACT control rules, as they are an optional tool that managers can use. Additionally, NMFS is moving the description of management uncertainty out of the description of the ACT control rule and other sections of the guidelines (§ 600.310(f)(1) and (f)(6)(i)) into a definition of management uncertainty (see § 600.310(f)(1)(v) of this proposed action). Consistent with the current NS1 guidelines, some Councils have chosen to account for management uncertainty when setting ACLs. NMFS acknowledges and encourages this practice by adding a sentence in proposed § 600.310(f)(4) stating that if ACT is not used, management uncertainty should be accounted for in the ACL.

Additionally, NMFS proposes moving the guidance on AMs that is currently contained in § 600.310(h)(1) into paragraphs (f) and (g) of the NS1 guidelines. Specifically, NMFS proposes adding “if sector-ACLs are used, sector-AMs should also be specified” to § 600.310(f)(4)(ii) of this proposed action. This concept is currently in § 600.310(h)(1)(iv) and was moved into the discussion of sector-ACLs to improve clarity. NMFS also proposes to add “the FMP should identify what sources of data will be used to implement AMs (e.g., inseason data, annual catch compared to the ACL, or multi-year averaging approach)” into the introductory paragraph on AMs (see § 600.310(g)(1) of this proposed action). This concept is currently in § 600.310(h)(1)(iii) and was moved into the discussion on AMs to consolidate the guidance on AMs.

NMFS also proposes to consolidate the guidance regarding the ACL performance standard from current §§ 600.310(g)(3) and (g)(4) into one section (see § 600.310(g)(7) of this proposed action). However, the guidance regarding the performance standard remains the same; if catch exceeds the ACL for a given stock or stock complex more than once in the last four years, the system of ACLs and AMs should be reevaluated, and modified if necessary to improve its performance and effectiveness.

NMFS also proposes to clarify in the guidance for AMs when ACL is exceeded that the type of AM chosen by a Council will likely vary depending on

the sector of the fishery, status of the stock, the degree of the overage, recruitment patterns of the stock, or other pertinent information (see § 600.310(g)(3) of this proposed action). For example, some stocks have highly variable recruitment and when environmental conditions are favorable, the catches may exceed the ACL because the abundance of the stock is higher than anticipated. When deciding on the appropriate AM, Councils could consider if higher than expected recruitment played a role in catches exceeding the ACL. Another example of how the type of AM may vary is that a Council may choose to use a more stringent AM as the biomass of the stock declines.

Lastly, within the guidance on AMs for when the ACL is exceeded, NMFS proposes that, if an ACL is set equal to zero and the AM for the fishery is a closure that prohibits fishing for a stock, additional AMs are not required if (1) only small amounts of catch or bycatch occur, and (2) that catch or bycatch is unlikely to result in overfishing (see § 600.310(g)(3) of this proposed action). Under these circumstances, NMFS believes that a closure that prohibits fishing for a stock is an adequate AM for a fishery, and in some cases, it may be the only option available for a Council.

#### **XIII. Establishing Annual Catch Limit (ACL) and Accountability Measure (AM) Mechanisms**

NMFS is proposing minor revisions to reduce redundancy and improve clarity within § 600.310(h). NMFS proposes to remove the guidance on stock complexes and indicator stocks within current paragraph (h) because it is redundant; similar guidance is contained in § 600.310(d)(2)(ii) of the proposed action.

NMFS proposes to remove current §§ 600.310(h)(1)(i) and (h)(1)(ii), because they are redundant with the guidance in §§ 600.310(f)(4)(i) and (f)(4)(ii), respectively, of this proposed action. As described above in preamble section XII, NMFS proposes to remove the guidance on AMs in current §§ 600.310(h)(1)(iii) and (iv), and consolidate it into §§ 600.310(g)(1) and (f)(4)(ii), respectively, of this proposed action to improve clarity.

The MSA provides a statutory exception to the requirements for ACLs and AMs for “a fishery for species that have a life cycle of approximately 1 year unless the Secretary has determined the fishery is subject to overfishing of that species.” 16 U.S.C. 1853. Section 600.310(h)(2) of the current NS1 guidelines further explains that the life cycle exception applies to “a stock for

which the average length of time it takes for an individual to produce a reproductively active offspring is approximately 1 year and that individual has only one breeding season in its lifetime.” NMFS believes that the current guidance is confusing and that the requirement to only have one breeding season in a lifetime is overly restrictive. Some short lived species have multiple breeding cycles in a lifetime. NMFS proposes to revise this exception to apply to “a stock for which the average age of spawners in the population is approximately 1 year or less” (see § 600.310(h)(1)(i) of the proposed action). NMFS believes that this is a more scientifically correct description of a species that has a life cycle of approximately 1 year.

Lastly, as described above in preamble section V, NMFS proposes amending the “Flexibility in application of NS1 guidelines” provision of the guidelines by adding two additional examples of circumstances that may not fit the standard approaches to specification of reference points as those described in the NS1 guidelines (see § 600.310(h)(2) of this proposed action).

#### **XIV. Adding Flexibility in Rebuilding**

The topic of rebuilding plans has been discussed extensively in a number of public forums. NMFS received several comments in response to the NS1 ANPR stating that the 10-year rebuilding requirement is arbitrary and expressing a desire for more flexibility in meeting the statutory rebuilding requirements, while other commenters supported the use of the 10-year rebuilding requirement. Similar comments were provided at the Managing Our Nation’s Fisheries III conference held in Washington, DC, in 2013. The National Research Council also published a report on U.S. rebuilding plans in 2013 (NRC 2013), which provided several findings and recommendations on improving rebuilding guidance. Below is a summary of the proposed revisions to the NS1 guidelines related to providing flexibility in developing effective rebuilding plans.

##### *Calculating $T_{max}$*

When the biomass of a stock has declined below a level that jeopardizes the capacity of the stock to produce MSY on a continuing basis, the stock is considered overfished. Section 304(e)(4) of the MSA requires Councils to specify a time period for rebuilding overfished stocks within 10 years, except in cases where the biology of the stock, other environmental conditions, or management measures under an international agreement in which the

United States participates dictate otherwise. 16 U.S.C. 1854(e)(4). Currently, the NS1 guidelines provide guidance on determining the minimum ( $T_{\min}$ ), maximum ( $T_{\max}$ ), and target ( $T_{\text{target}}$ ) time to rebuild a stock to a level that supports MSY ( $B_{\text{msy}}$ ).  $T_{\min}$  is defined as the amount of time the stock or stock complex is expected to take to rebuild to  $B_{\text{msy}}$  in the absence of any fishing mortality. If  $T_{\min}$  for the stock or stock complex is 10 years or less, then  $T_{\max}$  for that stock is 10 years. Otherwise,  $T_{\max}$  is calculated as  $T_{\min}$  plus the length of time associated with one generation time for that stock or stock complex. "Generation time" is defined in the proposed NS1 guidelines at § 600.310(j)(3)(i)(B)(2)(i) as the average length of time between when an individual is born and the birth of its offspring.

In the past, Councils have had difficulties calculating  $T_{\max}$  (i.e.,  $T_{\min} + 1$  generation time), because it requires life history information on the natural mortality, age at maturity, fecundity, and maximum age of the stock (Restrepo, *et al.* 1998). As a result, several Councils have had to rely on proxies of generation time, which can sometimes lead to either overly conservative or exaggerated estimates of  $T_{\max}$ . To address the data requirement issues of calculating generation time, NMFS is proposing to add two additional ways of calculating  $T_{\max}$  (see § 600.310(j)(3)(i)(B) of the proposed rule). Thus, Councils will have three options for calculating  $T_{\max}$ : (1)  $T_{\min}$  plus one generation time; (2) the amount of time the stock is expected to take to rebuild to its MSY biomass level if fished at 75 percent of MFMT; and (3)  $T_{\min}$  multiplied by two. These alternative methods of calculating  $T_{\max}$  rely on different life history parameters, and provide similar timelines for rebuilding when compared to  $T_{\min}$  plus one generation time. The 75 percent of MFMT approach is potentially advantageous in that MFMT is highly correlated with the productivity of a stock, meaning there is a reduced probability of calculating less conservative or exaggerated estimates of  $T_{\max}$ . Whereas,  $T_{\min}$  multiple by two, is the most simplistic method of calculating  $T_{\max}$ , and it is has been applied elsewhere in the world. For example, the New Zealand's Ministry of Primary Industries uses this method to calculate  $T_{\max}$  for their overfished stocks. When selecting a method for determining  $T_{\max}$ , a Council must provide a rationale for its decision based on the best scientific information available.

NMFS does not expect that drastically different estimates of  $T_{\max}$  will result from one option to another. Rather, NMFS expects the method selected will largely depend on the best scientific information available for calculating  $T_{\max}$ . It is also important to note, that an overfished stock is expected to have a  $T_{\text{target}}$  that is less than  $T_{\max}$ , which rebuilds the stock in as short a time as possible (see § 600.310(j)(3)(i)(C) of this proposed rule).

#### *Adequate Progress and Extending Rebuilding Timelines*

MSA section 304(e)(7) requires the Secretary to review rebuilding plans to ensure that adequate progress toward ending overfishing and rebuilding affected fish stocks is being made. 16 U.S.C. 1854(e)(7). The current NS1 guidelines do not provide any guidance on this provision, and NMFS received several comments in response to the ANPR requesting additional guidance on this provision. NMFS proposes adding guidance to clarify that the review of rebuilding progress could include the review of recent stock assessments, comparisons of catches to the ACL, or other appropriate performance measures. NMFS also proposes that the Secretary may find that adequate progress in rebuilding is not being made if:  $F_{\text{rebuild}}$  or the ACL associated with  $F_{\text{rebuild}}$  are being exceeded and AMs are not effective at correcting for the overages; or when the rebuilding expectations of the stock or stock complex have significantly changed due to new and unexpected information about the status of the stock (see § 600.310(f)(3)(iv) of this proposed action).

NMFS also proposes clarifying that, while a stock or stock complex is rebuilding, revising rebuilding timeframes (i.e.,  $T_{\text{target}}$  and  $T_{\max}$ ) or  $F_{\text{rebuild}}$  is not necessary, unless the Secretary finds that adequate progress is not being made (see § 600.310(f)(3)(v) of this proposed action). As highlighted in the NRC (2013) report on rebuilding, the primary objective of a rebuilding plan should be to maintain fishing mortality at or below  $F_{\text{rebuild}}$ . By doing so, managers can avoid issues with updating timelines that are based on biomass milestones, which are subject to uncertainty (see § 600.310(j)(3)(i)(A)) and changing environmental conditions that are outside the control of fishery managers.

#### *Emergency Actions and Interim Measures*

The NS1 guidelines provide guidance on emergency actions and interim measures to reduce overfishing that can

be taken under sections 304(e)(6) and 305(c) of the MSA. NMFS is proposing to delete §§ 600.310(j)(4)(i) and (ii) because: (1) The guidance simply repeats the language in the MSA; (2) NMFS has separately published a policy on implementing the provisions of MSA 305(c) (NMFS Policy Directive 01–101–07, Policy Guidelines on the Use of Emergency Rules, 62 FR 44421 (Aug. 21, 1997)); and (3) NS1 guidance should only provide guidance on the 304(e)(6) provisions of the MSA, because it pertains to rebuilding stocks. NMFS proposes to clarify in § 600.310(j)(4) of this proposed action that the Secretary's ability to implement interim measures to reduce, but not necessarily end, overfishing should rarely be used and require that the following three criteria be met before the interim measure can be used: (1) The interim measure is needed to address an unanticipated and significantly changed understanding of the stock's status; (2) ending overfishing immediately is expected to result in severe social and/or economic impacts to a fishery; and (3) the interim measures will at least ensure that the stock will increase its current biomass through the duration of the interim measure.

#### *Discontinuing a Rebuilding Plan Based on New Information*

Due to scientific uncertainty in the biomass estimate of fish stocks, occasionally a stock is identified as overfished, but is later determined to have never been overfished. The recent NRC (2013) study on rebuilding estimated that approximately 30 percent of rebuilding stocks are later discovered to have never been overfished. In the past, it has been NMFS' policy that once a rebuilding plan has been implemented, the rebuilding plan cannot be discontinued until the stock has rebuilt to  $B_{\text{msy}}$ , regardless of new information about the status of the stock when it was originally declared overfished. This policy was in place because a future stock assessment could find that the stock actually had been overfished, and rebuilding to  $B_{\text{msy}}$  is consistent with the MSA's objective that fisheries produce MSY on a continuing basis.

However, NMFS realizes that rebuilding stocks are sometimes restricted to relatively low  $F_{\text{rebuilds}}$ , which can have negative impacts on fishery participants due to the reduced landings of the overfished stock, as well as reduced catch of other stocks in mixed-stock fisheries. Therefore, NMFS is proposing to allow a Council to discontinue a rebuilding plan before it reaches  $B_{\text{msy}}$  so long as the stock meets

the following criteria: (1) The Secretary determines that the stock was not overfished in the year that the MSA section 304(e)(3) overfished determination was based on; and (2) the biomass of the stock is not currently below the MSST (see § 600.310(j)(5) of this proposed action). This proposed revision is based on the rationale that the terminal year of a stock assessment (*i.e.*, the most recent year) is often the most uncertain, while subsequent reviews of that same year by stock assessments conducted several years later are often more accurate (NRC 1998). Thus, if a subsequent assessment shows that the stock was not overfished in the year that the overfished determination was based on, it is more likely that the stock was never overfished. However, in such a situation, a Council may always opt to continue following the rebuilding plan to further the conservation and management needs of a stock or stock complex that remains below  $B_{msy}$ .

#### *Other Revisions*

In § 600.310(j)(2), NMFS proposes deleting text that referred to the 2010 and 2011 implementation dates for ACLs and AMs, given that these deadlines have passed and all 46 FMPs have implemented ACLs and AMs (see §§ 600.310(j)(2)(i) and (ii) of this proposed action). NMFS also proposes adding guidance to clarify that, when a Council is notified that a stock or stock complex is undergoing overfishing, it should work with its SSC to ensure that the ABC is set appropriately to end overfishing. Councils should evaluate the cause of the overfishing, address the issue that caused overfishing, and reevaluate their ACLs and AM to make sure they are adequate (see § 600.310(j)(2)(i) of this proposed action).

#### **XV. Recreational Fisheries**

Since the reauthorization of the MSA in 2007, many recreational stakeholders have commented that the ACL requirements of the MSA do not recognize the different ways in which recreational and commercial fisheries are managed and prosecuted. The recreational community has provided comments through a variety of forums, such as: the 2012 NS1 ANPR; NMFS's Marine Fisheries Advisory Committee's White Paper on Recommendations for MSA by the Recreational Working Group; NMFS's Recreational Regional Roundtable discussions of 2013; Managing Our Nations Fisheries III (2013); The Commission on Saltwater Recreational Fisheries Management, A Vision for Managing America's

Saltwater Recreational Fisheries (Morris and Deal 2014); and NMFS Recreational Saltwater Fishing Summits in 2010 and 2014. In general, the recreational community has expressed an interest in increased fishing opportunities; having the opportunity to catch larger fish; flexibility in setting ACLs for recreational fisheries; managing for greater abundance; and, managing forage fish more conservatively to improve the resiliency of recreationally important fish stocks. While not highlighted in a separate or specific section, these issues are addressed in various sections of this proposed rule.

#### *Recreational Fishing Objectives*

NMFS recognizes that recreational and commercial sectors of a fishery will sometimes have different objectives for a fishery. Existing guidelines note that it is the Councils' responsibility to integrate the objectives of these various sectors or fishery participants into their fishery management plans, and prioritize among these objectives when they are in conflict (see §§ 600.305(b) and 600.310(e)(3)). However, in practice the process of identifying and prioritizing the objectives of a fishery are rarely reexamined once defined; there are some exceptions like the Mid-Atlantic and South-Atlantic Councils' recent visioning processes (for more information on these projects, see: <http://safmc.net/resource-library/council-visioning-project> and <http://www.mafmc.org/strategic-plan/>). Because the needs and objectives of a fishery change over time, NMFS is proposing that Councils reassess the objectives of the fishery on a regular basis (see § 600.305(b)(2) of this proposed action). Recreational fishermen should work with their Councils to advance their sector specific objectives, such as increasing the opportunity to catch larger fish.

#### *Flexibility in Setting ACLs and AMs*

The MSA requires ACLs and AMs for all managed fisheries; however, the NS1 guidelines do not require Councils to specify or implement AMs in the same manner among the sectors of a fishery. For example, in several cases, Councils have chosen to monitor the commercial catch using daily or weekly reporting mechanisms and use in-season management measures to close the commercial sector when it is expected to reach its ACL. In contrast, in some recreational fisheries, catch can only be monitored in 2-month increments, and ACL overages can only be addressed through post-season AMs. So as not to be constrained to one type of AM, the Mid-Atlantic and South Atlantic

Councils have developed conditional AMs that implement different AMs depending on the status of the stock and/or degree of ACL overage. These conditional AMs provide flexibility in managing sectors of the fishery differently. NMFS encourages the use of conditional AMs and proposes clarifying that the type of AM chosen by a Council will likely vary depending on the sector of the fishery, the status of the stock, degree of overage, recruitment patterns of the stock, and other pertinent information (see § 600.310(g)(3) of this proposed action).

NMFS also recognizes that an impediment to implementing ACLs for many recreationally important fish stocks is the lack of life history information to calculate MSY (or a standard proxy), as well as the lack of timely information on the catch levels of the stock. As noted above in section V of the preamble, NMFS is proposing to revise the NS1 guidelines to make clear that, when data are not available to specify MSY or MSY proxies, alternative types of SDCs that promote sustainability of the stock or stock complex can be used (see § 600.310(e)(2)(ii) of this proposed action). For example, SDCs could be based on recent average catch, fish densities derived from visual census surveys, length/weight frequencies or other methods. NMFS also proposes to allow alternative approaches to satisfying the NS1 requirements for stocks for which data are not available to either set MSY or MSY based reference points or manage to MSY or MSY based reference points (see § 600.310(h)(2) of this proposed action).

NMFS understands that many of the fish stocks captured in recreational fisheries are not targeted, but retained because they are valued by the fishermen. In the current NS1 guidelines, these "often retained" non-target stocks are considered to be "in the fishery" and are therefore required to have ACLs. Many stakeholders including recreational fishery participants have noted that, while these non-target stocks are often retained, many of these stocks may not be in need of conservation and management. As noted above in section IV of the preamble, NMFS is revising its guidance on stocks in the fishery and ecosystem component species to provide further guidance to Councils in determining whether stocks require conservation and management based on several factors. Therefore, some non-target fish stocks may no longer need ACLs based on this proposed rule.

Some stakeholders have also recommended that, where appropriate,

NMFS should consider allowing fisheries (in their entirety) to be managed at the state level. They have expressed that Federal agencies are not always the most appropriate organizations to manage fisheries, and, where applicable, states or fishery management commissions should take control of managing fish populations. NMFS agrees that Federal management is not required for all stocks, and has in the past provided guidance on when Federal management was and was not needed within its NS7 guidelines. As explained in Section IV, NMFS is consolidating guidance on stocks that require conservation and management in proposed § 600.305(c).

#### Forage Fish

NMFS is not proposing any new revisions to the NS guidelines related to forage fish, as the importance of forage fish to fisheries and the marine ecosystem was adequately highlighted in the 2009 revisions of the NS1 guidelines. For example, in current § 600.310(e)(3)(iii)(C), NMFS notes that maintaining adequate forage for all components of the ecosystem is one consideration that could be taken by the Council when determining the greatest benefit to the Nation. Additionally, current § 600.310(e)(3)(iv)(C) describes that, when specifying OY, consideration should be given to managing forage stocks for higher biomass than  $B_{msy}$  to enhance and protect the marine ecosystem. NMFS is not proposing to change these concepts within the guidelines.

#### XVI. Republishing Codified Text in Its Entirety

For clarity and convenience to the reader, this proposed rule would revise § 600.305 (National Standard General), § 600.310 (National Standard 1 guidelines), § 600.320 (National Standard 3 guidelines) and § 600.340 (National Standard 7 guidelines) in their entirety. The following describes the changes to these guidelines that are being proposed, and a tracked changes copy of the proposed rule is also available at: [http://www.nmfs.noaa.gov/sfa/laws\\_policies/national\\_standards/ns1\\_revisions.html](http://www.nmfs.noaa.gov/sfa/laws_policies/national_standards/ns1_revisions.html).

In the proposed revisions to § 600.305, paragraph (b)—*Fishery management objectives*, is revised. Current paragraph (c)—*Word usage* is revised and redesignated paragraph (d). A new paragraph (c)—*Stocks that require conservation and management*, is added to describe which stocks are in need of conservation and management.

In the proposed revisions to § 600.310, paragraph (b)—*General*, is

revised. Paragraph (c)—*Summary of items to include in FMPs related to NS1*, is revised. Current paragraph (d)—*Classifying stocks in an FMP*, is retitled *Stocks and stock complexes*. Paragraph (d)(1)—*Introduction*, is revised. Current paragraphs (d)(2)—*Stocks in a fishery*, (d)(4)—*Non-target species*, and (d)(5)—*Ecosystem component (EC) species* were deleted. Current paragraph (d)(3)—*Target stocks*, was revised and redesignated (d)(11) in § 600.305. Current paragraph (d)(6)—*Reclassification*, was revised and redesignated (c)(5) in § 600.305. Current paragraph (d)(7)—*Stocks or species identified in more than on FMP*, was revised and redesignated (c)(4) in § 600.305. Current paragraph (d)(8)—*Stock complex* was revised and redesignated (d)(2)(i) and (d)(2)(ii)(B). Current paragraph (d)(9)—*Indicator stocks*, was revised and redesignated (d)(2)(ii)(A),(C)–(D). Current paragraph (d)(10)—*Vulnerability*, was revised and redesignated (b)(4). Current paragraph (e)(1)—*MSY*, was revised. Current paragraph (e)(1)(iii)—*MSY for stock complexes*, was revised and portions therein were redesignated in (d)(2)(ii)(E). Current paragraph (e)(1)(iv)—*Specifying MSY*, was revised and redesignated (e)(1)(v)(A)–(D). A new paragraph (e)(1)(iv)—*Methods of estimating MSY for an aggregate group of stocks*, was added to describe alternative methods of calculating MSY for a group of stocks. Paragraphs (e)(2)(i)(A)—*Status determination criteria (SDC)*, (e)(2)(i)(B)—*Overfishing*, (e)(2)(i)(C)—*Maximum Fishing Mortality Threshold (MFMT)*, (e)(2)(i)(D)—*Overfishing limit*, (e)(2)(i)(E)—*Overfished* were revised. Current paragraph (e)(2)(i)(F)—*Minimum stock size threshold (MSST)*, was revised and redesignated (e)(2)(i)(G). Current paragraph (e)(2)(i)(G)—*Approaching an overfished condition*, was redesignated (e)(2)(i)(H). A new paragraph (e)(2)(i)(F)—*Depleted*, was added to define the term depleted. Paragraphs (e)(2)(ii)—*Specification of SDC and overfishing and overfished determinations* and subsections therein (e)(2)(ii)(A)–(B) were revised. Paragraph (e)(2)(ii)(A)(3) was added to describe multiyear periods to determine overfishing status. Paragraph (e)(2)(ii)(C) was added to describe that sources of mortality should be accounted for in the evaluation of stock status with respect to reference points. Current paragraph (e)(2)(iii)—*Relationship of SDC to environmental change*, is retitled *Relationship of SDC to environmental and habitat change*. Current paragraphs (e)(2)(iii)(C), (e)(2)(iv)(A), (e)(3)—

*Optimum yield*, (e)(3)(i)(A)–(B), and (e)(3)(ii)—*General* were revised. Current paragraph (e)(3)(iii)—*Determining the greatest benefit to the Nation*, was revised and redesignated (e)(3)(iii)(A). Current paragraphs (e)(3)(iii)(A)–(C), were revised and redesignated (e)(3)(iii)(A)(1)–(3), respectively. A new paragraph (e)(3)(iii)—*Assessing OY*, was added to describe the OY assessment process. Current paragraph (e)(3)(iv)—*Factors to consider in OY specification*, was revised, redesignated (e)(3)(iii)(B) and retitled *Economic, Ecological, and Social Factors*. Current paragraphs (e)(3)(iv)(A)–(C), were revised and redesignated (e)(3)(iii)(B)(1)–(3). Current paragraph (e)(3)(v)—*Specification of OY*, was revised, redesignated (e)(3)(iv), and retitled *Specifying OY*. Current paragraph (e)(3)(v)(A) was revised and redesignated (e)(3)(iv)(A). Current paragraph (e)(3)(v)(B), was deleted, and the content was incorporated into (e)(3)(v)(A). Current paragraph (e)(3)(v)(C), was revised and redesignated (e)(3)(ii)(C). Current paragraph (e)(3)(v)(D), was redesignated to (e)(3)(v)(A). Current paragraph (e)(3)(v)(E), was redesignated (e)(3)(iv)(B). Current paragraph (e)(3)(v)(F), was revised and redesignated (e)(3)(iv)(C). Current paragraph (e)(3)(v)(G), was deleted and the concept was moved to (e)(3)(iii). Current paragraph (e)(3)(v)(H), was redesignated (e)(3)(v)(B). A new paragraph (e)(3)(iv)(D), was added to address issues with internationally managed stocks. Current paragraph (e)(3)(vi)—*OY and foreign fishing*, was redesignated (e)(3)(v). Current paragraphs (e)(3)(vi)(A)–(C), were redesignated (e)(3)(v)(C)–(E), respectively. Paragraph (f)—*Acceptable biological catch, annual catch limits, and annual catch targets*, is revised and retitled *Acceptable biological catch and annual catch limits*. Paragraph (f)(1)—*Introduction*, was deleted. Current paragraph (f)(2)—*Definitions* and (f)(2)(i), are redesignated (f)(1) and (f)(1)(i), respectively. Current paragraph (f)(2)(ii)—*Acceptable biological catch (ABC)*, is revised and redesignated (f)(1)(ii). Current paragraph (f)(2)(iii)—*ABC control rule*, is deleted. Current paragraph (f)(2)(iv)—*Annual catch limit (ACL)*, is revised and redesignated (f)(1)(iii). Current paragraphs (f)(2)(v)—*Annual catch target (ACT)* and (f)(2)(vi)—*ACT control rule*, were deleted and the content was moved to paragraph (g)(4). New paragraphs (f)(1)(iv)—*Control rule*, (f)(1)(v)—*Management uncertainty*, and (f)(1)(vi)—*Scientific uncertainty*, were added because the terms were not

clearly defined in the current guidelines. Current paragraphs (f)(3)—*Specification of ABC* and (f)(3)(ii) were revised. Current paragraph (f)(4)—*ABC control rule*, was revised and redesignated (f)(2)(i)—(ii). Paragraphs (f)(2)(ii)(A)&(B) were added to describe phase-in and carry-over ABC control rules. Current paragraph (f)(5)—*Setting the annual catch limit*, was redesignated (f)(4). Current paragraphs (f)(5)(i)—(iii) were revised and redesignated (f)(4)(i)—(iii), respectively. A new paragraph (f)(4)(iv)—*Relationship between OY and the ACL framework*, was added. Current paragraphs (f)(6)—*ACT control rule*, (f)(6)(i)—*Determining management uncertainty* and (f)(6)(ii)—*Establishing tiers and corresponding ACT control rules*, were revised and redesignated (g)(4)—*Annual catch target (ACT) and ACT control rule*. Paragraph (f)(7) was deleted. Paragraph (g)—*Accountability measures*, was revised and retitled *Accountability measures (AMs)*. Paragraph (g)(1)—*Introduction*, and (g)(2)—*Inseason AMs* were revised. Paragraph (g)(3)—*AMs for when the ACL is exceeded*, was revised and portions therein were redesignated to a new paragraph (g)(7)—*Performance standard*. Current paragraphs (g)(4)—*AMs based on multi-year average data*, was revised and redesignated (g)(5). Current paragraph (g)(5)—*AMs for State-Federal Fisheries*, was redesignated (g)(6). Paragraph (h)—*Establishing ACL mechanisms and AMs in FMPs*, was revised. Current paragraphs (h)(1)(i)—(ii) were deleted. Current paragraphs (h)(1)(ii) and (h)(1)(iv) were deleted and incorporated in (g)(1) and (f)(4)(ii), respectively. Current paragraph (h)(2)—*Exceptions from ACL and AM requirements* and (h)(2)(ii)—*International fishery agreements*, were redesignated (h)(1) and (h)(1)(ii), respectively. Current paragraphs (h)(2)(i)—*Life cycle* and (h)(3)—*Flexibility in application of NS1 guidelines*, were revised and redesignated (h)(1)(i) and (h)(2), respectively. Paragraphs (i)—*Fisheries data* and (i)(3), were revised. Paragraph (j)—*Council actions to address overfishing and rebuilding for stocks and stock complex in the fishery*, was retitled *Council actions to address overfishing and rebuilding for stocks and stock complexes*. Paragraph (j)(2)(i)—*If a stock or stock complex is undergoing overfishing*, was revised. Paragraphs (j)(2)(i)(A)—(C), were deleted. Paragraph (j)(2)(ii)—*If a stock or stock complex is overfished or approaching an overfished condition*, was revised. Paragraph (j)(3)(i)(A), was revised. Paragraph (j)(3)(i)(B), was deleted but

portions therein were revised and incorporated into paragraph (j)(3)(i)(A). Current paragraph (j)(3)(i)(C), was revised and redesignated (j)(3)(i)(B)(1). Current paragraph (j)(3)(i)(D), was revised and redesignated (j)(3)(i)(B)(2), (j)(3)(i)(B)(2)(i)—(iii) and (j)(3)(i)(B)(3). Current paragraph (j)(3)(i)(E), is revised and redesignated (j)(3)(i)(C)—*Target time to rebuilding a stock or stock complex (Ttarget)*. Paragraph (j)(3)(ii), was revised and redesignated (j)(4)—*Adequate progress*, and (j)(4)(i)—(ii). Current paragraphs (j)(3)(iii) and (j)(3)(iv), were redesignated (j)(3)(ii) and (j)(3)(iii), respectively. Current paragraph (j)(4)—*Emergency actions and interim measures*, was revised and redesignated (j)(4). Current paragraphs (j)(4)(i) and (j)(4)(ii), were deleted. New paragraphs (j)(5)—*Discontinuing a rebuilding plan based on new scientific information*, (j)(5)(i)—(ii), and (j)(6)—*Management measures for depleted stocks*, were added.

In the proposed revisions to § 600.320, paragraphs (d)—*Management unit* and (d)(1)—*Basis*, were revised. Paragraphs (d)(1)(i)—(vi), were deleted. Paragraphs (d)(2)—*Conservation and management measures*, and (e)—*Analysis* were revised.

In the proposed revisions to § 600.340, paragraphs (b)—*Necessity of Federal management*, (b)(1)—*General*, and (b)(2)—*Criteria* were deleted. Current paragraphs (b)(2)(i)—(iii), were revised and redesignated paragraphs (c)(2)(vi), (c)(2)(iii), and (c)(2)(x), respectively, in § 600.305. Current paragraphs (b)(2)(iv)—(vi) were redesignated paragraphs (c)(2)(vii)—(ix) in § 600.305. Paragraph (b)(2)(vii), was deleted. Current paragraphs (c)—*Alternative management measures*, and (d)—*Analysis*, were redesignated (b)—*Alternative management measures*, and (c)—*Analysis*.

## **XVII. References Cited**

A complete list of all the references cited in this final action is available online at: [http://www.nmfs.noaa.gov/sfa/laws\\_policies/national\\_standards/ns1\\_revisions.html](http://www.nmfs.noaa.gov/sfa/laws_policies/national_standards/ns1_revisions.html) or upon request from Wesley Patrick (see **FOR FURTHER INFORMATION CONTACT**).

## **XIII. Classification**

Pursuant to section 304(b)(1)(A) of the Magnuson-Stevens Act, the NMFS Assistant Administrator has determined that this proposed rule is consistent with the Act, and other applicable law, subject to further consideration after public comment.

This rule has been determined to be significant for purposes of Executive Order 12866.

The Chief Counsel for Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration that this rule, if adopted, would not have a significant economic impact on a substantial number of small entities. The factual basis for this determination is as follows.

The purpose of the rule is to facilitate compliance with requirements of the Magnuson-Stevens Act to end and prevent overfishing, rebuild overfished stocks, and achieve optimum yield (OY) without establishing new requirements or requiring the Councils or Secretary to revise their Fishery Management Plans (FMPs). The objectives of the rule are to improve and clarify the guidance within the NS guidelines, address concerns that have been raised during the implementation of annual catch limits (ACLs) and accountability measures (AMs), and provide flexibility to address fishery management issues. Pursuant to MSA section 301(b), the NS guidelines are advisory in nature and do not have the force and effect of law. The Magnuson-Stevens Act serves as the legal basis for the rule.

Small entities include “small businesses,” “small organizations,” and “small governmental jurisdictions.” The Small Business Administration has established size standards for all major industry sectors in the U.S. including commercial finfish harvesters (NAICS code 114111), commercial shellfish harvesters (NAICS code 114112), other commercial marine harvesters (NAICS code 114119), for-hire businesses (NAICS code 487210), marinas (NAICS code 713930), seafood dealers/wholesalers (NAICS code 424460), and seafood processors (NAICS code 311710). A business primarily involved in finfish harvesting is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual receipts not in excess of \$20.5 million for all its affiliated operations worldwide. For commercial shellfish harvesters, the other qualifiers apply and the receipts threshold is \$5.5 million. For other commercial marine harvesters, for-hire businesses, and marinas, the other qualifiers apply and the receipts threshold is \$7.5 million. A business primarily involved in seafood processing is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual employment not in excess of 500 employees for all its affiliated operations worldwide. For seafood

dealers/wholesalers, the other qualifiers apply and the employment threshold is 100 employees. A small organization is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. Small governmental jurisdictions are governments of cities, counties, towns, townships, villages, school districts, or special districts, with populations of less than 50,000.

The actions in this rule make technical changes to the general section to the National Standard Guidelines, and the Guidelines for National Standard 1 (NS 1), National Standard 3 (NS 3), and National Standard 7 (NS 7). Specifically, this rule would: (1) Revise the general section of the NS guidelines regarding the importance of identifying fishery management objectives within an FMP, (2) consolidate guidance on identifying whether stocks need conservation and management, (3) revise the guidelines to provide flexibility in managing data limited stocks, (4) revise the guidance on stock complexes to encourage the use of complexes and indicator stocks, (5) revise the guidelines to promote the use of aggregate MSY estimates, (6) revise the guidelines by adding a definition for a depleted stock, (7) revise the guidelines to allow multi-year overfishing determinations, methods to phase-in adjustments to ABC, and methods to carry-over of all or some of an unused portion of the ACL, (8) revise guidance on OY to improve clarity and describe the role of OY under the ACL framework, (9) revise the acceptable biological catch (ABC) guidance, (10) revise guidance on AMs, (11) revise guidance on establishing ACL and AM mechanisms, and (12) provide flexibility in rebuilding stocks.

Because the proposed changes to the guidelines do not create new requirements and thus are technical in nature, this rule would allow but does not require the Councils or the Secretary to make changes to their FMPs. Further, because the guidelines do not directly regulate any entities, the proposed changes will not directly alter the behavior of any entities operating in federally managed fisheries, and thus no direct economic effects on commercial harvesting businesses, for-hire businesses, marinas, seafood dealers/wholesalers, or seafood processors are expected to result from this action. Therefore, no small entities would be directly affected by this rule.

As a result of the information above, a reduction in profits for a substantial number of small entities is not expected. Because this rule, if implemented, is not expected to have a significant adverse

economic effect on the profits of a substantial number of small entities, an initial regulatory flexibility analysis is not required and none has been prepared.

No duplicative, overlapping, or conflicting Federal rules have been identified. This rule would not establish any new reporting or record-keeping requirements.

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

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

Dated: January 12, 2015.

**Samuel D. Rauch III,**

*Deputy Assistant Administrator for Regulatory Services, National Marine Fisheries Service.*

For the reasons stated in the preamble, 50 CFR part 600 is proposed to be 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. Section 600.305 is revised to read as follows:

##### § 600.305 General.

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

(2) In developing FMPs, the Councils have the initial authority to ascertain factual circumstances, to establish management objectives, and to propose management measures that will achieve the objectives. The Secretary will determine whether the proposed management objectives and measures are consistent with the national standards, other provisions of the 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) The national standards are statutory principles that must be followed in any FMP. The guidelines summarize Secretarial interpretations

that have been, and will be, applied under these principles. The guidelines are intended as aids to decision-making; FMPs formulated according to the guidelines will have a better chance for expeditious Secretarial review, approval, and implementation. FMPs that are in substantial compliance with the guidelines, the Magnuson-Stevens Act, and other applicable law must be approved.

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

(2) To reflect the changing needs of the fishery over time, Councils should reassess the objectives of the fishery on a regular basis.

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

(c) *Stocks that require conservation and management.* (1) Magnuson-Stevens Act section 302(h)(1) requires a Council to prepare an FMP for each fishery under its authority that requires (or in other words, is in need of) conservation and management. Not every fishery requires Federal management. Any stocks that are predominately caught in Federal waters and are overfished or subject to overfishing, or likely to become overfished or subject to overfishing, are considered to require conservation and management. In addition, the following non-exhaustive list of factors should be used by a Council when deciding whether stocks require conservation and management:

(i) The stock is an important component of the marine environment.

- (ii) The stock is caught by the fishery.
- (iii) Whether an FMP can improve or maintain the condition of the stocks.
- (iv) The stock is a target of a fishery.
- (v) The stock is important to commercial, recreational, or subsistence users.
- (vi) The fishery is important to the Nation and to the regional economy.
- (vii) The need to resolve competing interests and conflicts among user groups and whether an FMP can further that resolution.
- (viii) The economic condition of a fishery and whether an FMP can produce more efficient utilization.
- (ix) The needs of a developing fishery, and whether an FMP can foster orderly growth.
- (x) The extent to which the fishery could be or is already adequately managed by states, by state/Federal programs, by Federal regulations pursuant to other FMPs or international commissions, or by industry self-regulation, consistent with the policies and standards of the Magnuson-Stevens Act.

(2) When considering adding a new stock to an FMP or keeping an existing stock within an FMP, Councils should prepare a thorough analysis of the factors, and any additional considerations that may be relevant to the particular stock. No single factor is dispositive, but Councils should consider weighting the factors as follows. Factors in paragraphs (c)(1)(i) through (iii) of this section should be considered first, as they address maintaining a fishery resource and the marine environment. *See* 16 U.S.C. 1802(5)(A). These factors weigh in favor of including a stock in an FMP. Councils should next consider factors in paragraphs (c)(1)(iv) through (ix) of this section, which set forth key economic, social, and other reasons contained within the MSA for an FMP action. *See* 16 U.S.C. 1802(5)(B). Regardless of whether any of the first nine factors indicates a conservation and management need, a Council should consider factor in paragraph (c)(1)(x) of this section before deciding to include or maintain a stock in an FMP. In many circumstances, adequate management of a fishery by states, state/Federal programs, or another Federal FMP would weigh heavily against a Federal FMP action. *See, e.g.,* 16 U.S.C. 1851(a)(7) and 1856(a)(3). In evaluating the above criteria, a Council should consider the specific circumstances of a fishery, based on the best scientific information available; to determine whether there are biological, economic, social and/or operational concerns that

can be addressed by Federal management.

(3) Councils may choose to identify stocks within their FMPs as ecosystem component (EC) species (see § 600.310(d)(1)) if they do not require conservation and management. EC species may be identified at the species or stock level, and may be grouped into complexes. Consistent with National Standard 9, Magnuson-Stevens Fishery Conservation and Management Act (MSA) section 303(b)(12), and other applicable MSA sections, management measures can be adopted in order to, for example, collect data on the EC species, minimize bycatch or bycatch mortality of EC species, protect the associated role of EC species in the ecosystem, or for other reasons.

(4) A stock or stock complex may be identified in more than one FMP. In this situation, the relevant Councils should choose which FMP will be the primary FMP in which reference points for the stock or stock complex are established. In other FMPs, the stock or stock complex may be identified as “other managed stocks” and management measures that are consistent with the objectives of the primary FMP can be established.

(5) Councils should periodically review their FMPs and the best scientific information available and determine if the stocks are appropriately identified. As appropriate, stocks should be reclassified within a FMP, added to or removed from an existing FMP, or added to a new FMP, through a FMP amendment that documents the rationale for the decision.

(d) *Word usage within the National Standard Guidelines.* The word usage refers to all regulations in this subpart.

(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.

(2) *Shall* is used only when quoting statutory language directly, to avoid confusion with the future tense.

(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.

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

(5) *Will* is used descriptively, as distinguished from denoting an obligation to act or the future tense.

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

(7) *Can* is used to mean “is able to”, as distinguished from “may”.

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

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

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

(11) *Target stocks* are stocks or stock complexes that fishers seek to catch for sale or personal use, including “economic discards” as defined under Magnuson-Stevens Act section 3(9).

■ 3. 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 optimum yield (OY) from each fishery for the U.S. fishing industry.

(b) *General.* (1) The guidelines set forth in this section describe fishery management approaches to meet the objectives of National Standard 1 (NS1), and include guidance on:

(i) Specifying maximum sustainable yield (MSY) and OY;

(ii) Specifying status determination criteria (SDC) so that overfishing and overfished determinations can be made for stocks and stock complexes that require, or are in need of, conservation and management;

(iii) Preventing overfishing and achieving OY, incorporation of scientific and management uncertainty in control rules, and adaptive management using annual catch limits (ACL) and measures to ensure accountability (*i.e.*, accountability measures (AMs)); and

(iv) Rebuilding stocks and stock complexes.

(2) *Overview of Magnuson-Stevens Act concepts and provisions related to NS1—* (i) *MSY.* The Magnuson-Stevens Act establishes MSY as the basis for fishery management and requires that: The fishing mortality rate must not jeopardize the capacity of a stock or stock complex to produce MSY; the abundance of an overfished stock or stock complex must be rebuilt to a level that is capable of producing MSY; and OY must not exceed MSY.

(ii) *OY.* The determination of OY is a decisional mechanism for resolving the Magnuson-Stevens Act’s conservation and management objectives, achieving a



fishery management plan's (FMP) objectives, and balancing the various interests that comprise the greatest overall benefits to the Nation. OY is based on MSY as reduced under paragraphs (e)(3)(iii)(A) and (B) 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.

(iii) *ACLs and AMs.* Any FMP shall establish a mechanism for specifying ACLs in the FMP (including a multiyear plan), implementing regulations, or annual specifications, at a level such that overfishing does not occur in the fishery, including measures to ensure accountability (Magnuson-Stevens Act section 303(a)(15)).

(iv) *Reference points.* SDC, MSY, OY, acceptable biological catch (ABC), and ACL, which are described further in paragraphs (e) and (f) of this section, are collectively referred to as "reference points."

(v) *Scientific advice.* The Magnuson-Stevens Act has requirements regarding scientific and statistical committees (SSC) of the Regional Fishery Management Councils, including but not limited to, the following provisions (paragraphs (b)(2)(v)(A) through (D) of this section). See the National Standard 2 guidelines for further guidance on SSCs and the peer review process (§ 600.315).

(A) Each Regional Fishery Management Council shall establish an SSC as described in section 302(g)(1)(A) of the Magnuson-Stevens Act.

(B) Each SSC shall provide its Regional Fishery Management Council recommendations for ABC as well as other scientific advice, as described in Magnuson-Stevens Act section 302(g)(1)(B).

(C) The Secretary and each Regional Fishery Management Council may establish a peer review process for that Council for scientific information used to advise the Council about the conservation and management of a fishery (see Magnuson-Stevens Act section 302(g)(1)(E)). If a peer review process is established, it should investigate the technical merits of stock assessments and other scientific information to be used by the SSC or agency or international scientists, as appropriate. For Regional Fishery Management Councils, the peer review process is not a substitute for the SSC and should work in conjunction with the SSC. For the Secretary, which does not have an SSC, the peer review process should provide the scientific information necessary.

(D) Each Council shall develop ACLs for each of its managed fisheries that may not exceed the "fishing level recommendations" of its SSC or peer review process (Magnuson-Stevens Act section 302(h)(6)). The SSC recommendation that is the most relevant to ACLs is ABC, as both ACL and ABC are levels of annual catch.

(3) *Approach for setting limits and accountability measures, including targets, for consistency with NS1.* When specifying limits and accountability measures, Councils must take an approach that considers uncertainty in scientific information and management control of the fishery. These guidelines describe how the Councils could address uncertainty such that there is a low risk that limits are exceeded as described in paragraphs (f)(2) and (g)(4) of this section.

(4) *Vulnerability.* A stock's vulnerability to fishing pressure is a combination of its productivity, which depends upon its life history characteristics, and its susceptibility to the fishery. Productivity refers to the capacity of the stock to produce MSY and to recover if the population is depleted or overfished, and susceptibility is the potential for the stock to be impacted by the fishery, which includes direct captures, as well as indirect impacts of the fishery (e.g., loss of habitat quality).

(c) *Summary of items to include in FMPs related to NS1.* This section provides a summary of items that Councils must include in their FMPs and FMP amendments in order to address ACL, AM, and other aspects of the NS1 guidelines. Councils must describe fisheries data for the stocks and stock complexes in their FMPs, or associated public documents such as Stock Assessment and Fishery Evaluation (SAFE) Reports. For all stocks and stock complexes that require conservation and management (see § 600.305(c)), the Councils must evaluate and describe the following items in their FMPs and amend the FMPs, if necessary, to align their management objectives to end or prevent overfishing and to achieve OY:

(1) MSY and SDC (see paragraphs (e)(1) and (2) of this section).

(2) OY at the stock, stock complex, or fishery level and provide the OY specification analysis (see paragraph (e)(3) of this section).

(3) ABC control rule (see paragraph (f)(2) of this section).

(4) Mechanisms for specifying ACLs (see paragraph (f)(4) of this section).

(5) AMs (see paragraph (g) of this section).

(6) Stocks and stock complexes that have statutory exceptions from ACLs and AMs (see paragraph (h)(1) of this section) or which fall under limited circumstances which require different approaches to meet the Magnuson-Stevens Act requirements (see paragraph (h)(2) of this section).

(d) *Stocks and stock complexes—(1) Introduction.* As described in § 600.305(c), Councils should identify in their FMPs the stocks that require conservation and management. Such stocks must have ACLs, other reference points, and accountability measures. Other stocks that are identified in an FMP (i.e., ecosystem component species or stocks that the fishery interacts with but are managed primarily under another FMP, see § 600.305(c)(3) and (4)) do not require ACLs, other reference points, and accountability measures.

(2) *Stock complex.* Stocks that require conservation and management can be grouped into stock complexes. A "stock complex" is a tool to manage a group of stocks within a FMP.

(i) At the time a stock complex is established, the FMP should provide, to the extent practicable, a full and explicit description of the proportional composition of each stock in the stock complex. Stocks may be grouped into complexes for various reasons, including where stocks in a multispecies fishery cannot be targeted independent of one another; where there is insufficient data to measure a stock's status relative to SDC; or when it is not feasible for fishermen to distinguish individual stocks among their catch. Where practicable, the group of stocks should have a similar geographic distribution, life history characteristics, and vulnerabilities to fishing pressure such that the impact of management actions on the stocks is similar. The vulnerability of individual stocks should be considered when determining if a particular stock complex should be established or reorganized, or if a particular stock should be included in a complex.

(ii) *Indicator stocks.* (A) An indicator stock is a stock with measurable and objective SDC that can be used to help manage and evaluate more poorly known stocks that are in a stock complex.

(B) Where practicable, stock complexes should include one or more indicator stocks (each of which has SDC and ACLs). Otherwise, stock complexes may be comprised of: Several stocks without an indicator stock (with SDC and an ACL for the complex as a whole), or one or more indicator stocks (each of which has SDC and management objectives) with an ACL for the complex

as a whole (this situation might be applicable to some salmon species). Councils should review the available quantitative or qualitative information (e.g., catch trends, changes in vulnerability, fish health indices, etc.) of stocks within a complex on a regular basis to determine if they are being sustainably managed.

(C) If an indicator stock is used to evaluate the status of a complex, it should be representative of the typical vulnerability of stocks within the complex. If the stocks within a stock complex have a wide range of vulnerability, they should be reorganized into different stock complexes that have similar vulnerabilities; otherwise the indicator stock should be chosen to represent the more vulnerable stocks within the complex. In instances where an indicator stock is less vulnerable than other members of the complex, management measures should be more conservative so that the more vulnerable members of the complex are not at risk from the fishery.

(D) More than one indicator stock can be selected to provide more information about the status of the complex.

(E) When indicator stocks are used, the stock complex's MSY could be listed as "unknown," while noting that the complex is managed on the basis of one or more indicator stocks that do have known stock-specific MSYs, or suitable proxies, as described in paragraph (e)(1)(v) of this section.

(e) *Features of MSY, SDC, and OY*—(1) *MSY*. Each FMP must include an estimate of MSY for the stocks and stock complexes that require conservation and management. MSY may also be specified for the fishery as a whole.

(i) *Definitions*—(A) *MSY* is the largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological, environmental conditions and fishery technological characteristics (e.g., gear selectivity), and the distribution of catch among fleets.

(B) *MSY fishing mortality rate* ( $F_{msy}$ ) is the fishing mortality rate that, if applied over the long term, would result in MSY.

(C) *MSY stock size* ( $B_{msy}$ ) means the long-term average size of the stock or stock complex, measured in terms of spawning biomass or other appropriate measure of the stock's reproductive potential that would be achieved by fishing at  $F_{msy}$ .

(ii) *MSY for stocks*. MSY should be estimated for each stock based on the best scientific information available (see § 600.315).

(iii) *MSY for stock complexes*. When stock complexes are used, MSY should be estimated for one or more indicator stocks or for the complex as a whole (see paragraph (d)(2)(ii) of this section).

(iv) *Methods of estimating MSY for an aggregate group of stocks*. Estimating MSY for an aggregate group of stocks (including stock complexes and the fishery as a whole) can be done using models that account for multi-species interactions, composite properties for a group of similar species, common biomass (energy) flow and production patterns, or other relevant factors (see paragraph (e)(3)(iv)(C) of this section).

(v) *Specifying MSY*. (A) Because MSY is a long-term average, it need not be estimated annually, and should be re-estimated as required by changes in long-term environmental or ecological conditions, fishery technological characteristics, or new scientific information.

(B) When data are insufficient to estimate MSY directly, Councils should adopt other measures of reproductive potential that can serve as reasonable proxies for MSY,  $F_{msy}$ , and  $B_{msy}$ .

(C) The MSY for a stock or stock complex is influenced by its interactions with other stocks in its ecosystem and these interactions may shift as multiple stocks in an ecosystem are fished. Ecological and environmental information should be taken into account, to the extent practicable, when assessing stocks and specifying MSY. Ecological and environmental information that is not directly accounted for in the specification of MSY can be among the ecological factors considered when setting OY below MSY.

(D) As MSY values are estimates or are based on proxies, they will have some level of uncertainty associated with them. The degree of uncertainty in the estimates should be identified, when practicable, through the stock assessment process and peer review (see § 600.335), and should be taken into account when specifying the ABC Control rule (see paragraph (f)(2) of this section).

(2) *Status determination criteria*—(i) *Definitions*—(A) *Status determination criteria* (SDC) mean the measurable and objective factors, MFMT, OFL, and MSST, or their proxies, that are used to determine if overfishing has occurred, or if the stock or stock complex is overfished. Magnuson-Stevens Act (section 3(34)) defines both "overfishing" and "overfished" to mean a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the MSY on a continuing basis. To avoid confusion, this section clarifies

that "overfished" relates to biomass of a stock or stock complex, and "overfishing" pertains to a rate or level of removal of fish from a stock or stock complex.

(B) *Overfishing* occurs whenever a stock or stock complex is subjected to a level of fishing mortality or total catch that jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis.

(C) *Maximum fishing mortality threshold* (MFMT) means the level of fishing mortality (F) above which overfishing is occurring. The MFMT or reasonable proxy may be expressed either as a single number (a fishing mortality rate or F value), or as a function of spawning biomass or other measure of reproductive potential.

(D) *Overfishing limit* (OFL) means the annual amount of catch that corresponds to the estimate of MFMT applied to a stock or stock complex's abundance and is expressed in terms of numbers or weight of fish.

(E) *Overfished*. A stock or stock complex is considered "overfished" when its biomass has declined below MSST.

(F) *Depleted*. An overfished stock or stock complex is considered depleted when it has not experienced overfishing at any point over a period of two generation times of the stock and its biomass has declined below MSST, or when a rebuilding stock or stock complex has reached its targeted time to rebuild and the stock's biomass has shown no significant signs of growth despite being fished at or below catch levels that are consistent with the rebuilding plan throughout that period (see paragraphs (j)(3)(i)(B)(2)(i) and (j)(6) of this section).

(G) *Minimum stock size threshold* (MSST) means the level of biomass below which the capacity of the stock or stock complex to produce MSY on a continuing basis has been jeopardized.

(H) *Approaching an overfished condition*. A stock or stock complex is approaching an overfished condition when it is projected that there is more than a 50 percent chance that the biomass of the stock or stock complex will decline below the MSST within two years.

(ii) *Specification of SDC and overfishing and overfished determinations*. Each FMP must describe how objective and measurable SDCs will be specified, as described in paragraphs (e)(2)(ii)(A) and (B) of this section. To be measurable and objective, SDC must be expressed in a way that enables the Council to monitor the status of each stock or stock complex in the FMP. Applying the SDC set forth in

the FMP, the Secretary determines if overfishing is occurring and whether the stock or stock complex is overfished (Magnuson-Stevens Act section 304(e)). SDCs are often based on fishing rates or biomass levels associated with MSY or MSY based proxies. When data are not available to specify SDCs based on MSY or MSY proxies, alternative types of SDCs that promote sustainability of the stock or stock complex can be used. For example, SDC could be based on recent average catch, fish densities derived from visual census surveys, length/weight frequencies or other methods. In specifying SDC, a Council must provide an analysis of how the SDC were chosen and how they relate to reproductive potential of stocks of fish within the fishery. If alternative types of SDCs are used, the Council should explain how the approach will promote sustainability of the stock or stock complex on a long term basis. A Council should consider a process that allows SDCs to be quickly updated to reflect the best scientific information available. In the case of internationally-managed stocks, the Council may decide to use the SDCs defined by the relevant international body. In this instance, the SDCs should allow the Council to monitor the status of a stock or stock complex, recognizing that the SDCs may not be defined in such a way that a Council could monitor the MFMT, OFL, or MSST as would be done with a domestically managed stock or stock complex.

(A) *SDC To Determine Overfishing Status.* Each FMP must describe the method used to determine the overfishing status for each stock or stock complex. For domestically-managed stocks or stocks complexes, one of the following methods should be used:

(1) *Fishing Mortality Rate Exceeds MFMT.* Exceeding the MFMT for a period of 1 year or exceeding a multi-year mortality reference point constitutes overfishing.

(2) *Catch Exceeds the OFL.* Exceeding the annual OFL for 1 year or exceeding a multi-year catch reference point constitutes overfishing.

(3) *Use of Multi-Year Periods To Determine Overfishing Status.* A multi-year period may not exceed three years. A Council may develop overfishing SDCs that use a multi-year approach, so long as it provides a comprehensive analysis based on the best scientific information available that supports that the approach will not jeopardize the capacity of the fishery to produce MSY on a continuing basis. A Council should identify in its FMP or FMP amendment circumstances in which the multi-year approach should not be used (e.g.,

because the capacity of the stock to produce MSY over the longer term could be jeopardized).

(B) *SDC to determine overfished status.* The MSST or reasonable proxy must be expressed in terms of spawning biomass or other measure of reproductive potential. MSST should be between  $\frac{1}{2} B_{msy}$  and  $B_{msy}$ , and could be informed by the life history of the stock, the natural fluctuations in biomass associated with fishing at MFMT over the long-term, the time needed to rebuild to  $B_{msy}$  and associated social and/or economic impacts on the fishery, the requirements of internationally-managed stocks, or other considerations.

(C) Where practicable, all sources of mortality including that resulting from bycatch, scientific research catch, and all fishing activities should be accounted for in the evaluation of stock status with respect to reference points.

(iii) *Relationship of SDC to environmental and habitat change.* Some short-term environmental changes can alter the size of a stock or stock complex without affecting its long-term reproductive potential. Long-term environmental changes affect both the short-term size of the stock or stock complex and the long-term reproductive potential of the stock or stock complex.

(A) If environmental changes cause a stock or stock complex to fall below its MSST without affecting its long-term reproductive potential, fishing mortality must be constrained sufficiently to allow rebuilding within an acceptable time frame (see also paragraph (j)(3)(i) of this section). SDC should not be respecified.

(B) If environmental, ecosystem, or habitat changes affect the long-term reproductive potential of the stock or stock complex, one or more components of the SDC must be respecified. Once SDC 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.

(C) If manmade environmental changes are partially responsible for a stock or stock complex's biomass being below MSST, in addition to controlling fishing mortality, 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).

(iv) *Secretarial approval of SDC.* Secretarial approval or disapproval of proposed SDC will be based on consideration of whether the proposal:

(A) Is based on the best scientific information available;

(B) Contains the elements described in paragraph (e)(2)(ii) of this section;

(C) Provides a basis for objective measurement of the status of the stock or stock complex against the criteria; and

(D) Is operationally feasible.

(3) *Optimum yield.* For stocks that require conservation and management, OY may be established at the stock, stock complex, or fishery level.

(i) *Definitions—(A) Optimum yield (OY).* Magnuson-Stevens Act section (3)(33) defines “optimum,” with respect to the yield from a fishery, as 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.

(B) In NS1, use of the phrase “achieving, on a continuing basis, the optimum yield from each fishery” means: Producing, from each stock, stock complex, or fishery, an amount of catch that is, on average, equal to the Council's specified OY; prevents overfishing; maintains the long term average biomass near or above  $B_{msy}$ ; and rebuilds overfished stocks and stock complexes consistent with timing and other requirements of section 304(e)(4) of the Magnuson-Stevens Act and paragraph (j) of this section.

(ii) *General.* OY is a long-term average amount of desired yield from a stock, stock complex, or fishery. An FMP must contain conservation and management measures, including ACLs and AMs, to achieve OY on a continuing basis, and provisions for information collection that are designed to determine the degree to which OY is achieved. These measures should allow for practical and effective implementation and enforcement of the management regime. If management measures prove unenforceable—or too restrictive, or not rigorous enough to prevent overfishing while achieving on a continuing basis OY—they should be modified; an alternative is to reexamine the adequacy of the OY specification to ensure that the dual requirements of NS1 are met (preventing overfishing while achieving, on a continuing basis, OY).

(iii) *Assessing OY.* An FMP must contain an assessment and specification of OY, which documents how the OY

will produce the greatest benefits to the nation and prevent overfishing. The assessment should include a summary of information utilized in making such specification, consistent with requirements of section 303(a)(3) of the Magnuson-Stevens Act and consideration of the economic, social, and ecological factors relevant to management of a particular stock, stock complex, or fishery. Consistent with Magnuson-Stevens Act section 302(h)(5), the assessment and specification of OY should be reviewed on a continuing basis, so that it is responsive to changing circumstances in the fishery.

(A) *Determining the greatest benefit to the Nation.* In determining the greatest benefit to the Nation, the values that should be weighed and receive serious attention when considering the economic, social, or ecological factors used in reducing MSY, or its proxy, to obtain OY are:

(1) The benefits of food production 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.

(2) 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. Benefits also include the contribution of recreational fishing to the national, regional, and local economies and food supplies.

(3) The benefits of protection afforded to marine ecosystems are those resulting from maintaining viable populations (including those of unexploited species), maintaining adequate forage for all components of the ecosystem, maintaining evolutionary and ecological processes (e.g., disturbance regimes, hydrological processes, nutrient cycles), maintaining productive habitat, maintaining the evolutionary potential of species and ecosystems, and accommodating human use.

(B) *Economic, ecological, and social factors.* Councils should consider the management objectives of their FMPs and their management framework to determine the relevant social, economic, and ecological factors used to determine OY. There will be inherent trade-offs when determining the objectives of the fishery. The following is a non-exhaustive list of potential considerations for social, economic, and ecological factors.

(1) *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 (e.g., involvement in fisheries and ability to adapt to change). Consideration may be given to fishery-related indicators (e.g., number of fishery permits, number of commercial fishing vessels, number of party and charter trips, landings, ex-vessel revenues etc.) and non-fishery related indicators (e.g., unemployment rates, percent of population below the poverty level, population density, etc.) and preference for a particular type of fishery (e.g., size of the fishing fleet, type of vessels in the fleet, permissible gear types). Other factors that may be considered include the effects that past harvest levels have had on fishing communities, the cultural place of subsistence fishing, obligations under Indian treaties, proportions of affected minority and low-income groups, and worldwide nutritional needs.

(2) *Economic factors.* Examples are prudent consideration of the risk of overharvesting when a stock's size or reproductive potential is uncertain (see § 600.335(c)(2)(i)), 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, the attendant increase in catch per unit of effort, alternate employment opportunities, and economic contribution to fishing communities, coastal areas, affected states, and the nation.

(3) *Ecological factors.* Examples include impacts on ecosystem component species, forage fish stocks, other fisheries, predator-prey or competitive interactions, marine mammals, threatened or endangered species, and birds. Species interactions that have not been explicitly taken into account when calculating MSY should be considered as relevant factors for setting OY below MSY. In addition, consideration should be given to managing forage stocks for higher biomass than  $B_{msy}$  to enhance and protect the marine ecosystem. Also important are ecological or environmental conditions that stress marine organisms or their habitat, such as natural and manmade changes in wetlands or nursery grounds, and effects of pollutants on habitat and stocks.

(iv) *Specifying OY.* If the estimates of MFMT and current biomass are known

with a high level of certainty and management controls can accurately limit catch, then OY could be set very close to MSY, assuming no other reductions are necessary for social, economic, or ecological factors. To the degree that such MSY estimates and management controls are lacking or unavailable, OY should be set farther from MSY.

(A) The OY can be expressed in terms of numbers or weight of fish, and either as a single value or a range. When it is not possible to specify OY quantitatively, OY may be described qualitatively.

(B) The determination of OY is based on MSY, directly or through proxy. 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, OY must still be established based on the best scientific information available.

(C) An OY established at a fishery level may not exceed the sum of the MSY values for each of the stocks or stocks complexes within the fishery. Aggregate level MSY estimates could be used as a basis for specifying OY for the fishery (see paragraph (e)(1)(iv) of this section). When aggregate level MSY is estimated, single stock MSY estimates can also be used to inform single stock management. For example, OY could be specified for a fishery, while other reference points are specified for individual stocks in order to prevent overfishing on each stock within the fishery.

(D) For internationally-managed stocks, fishing levels that are agreed upon by the U.S. at the international level are consistent with achieving OY.

(v) *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. The FMP must include an assessment to address the following, as required by section 303(a)(4) of the Magnuson-Stevens Act:

(A) The OY specification is the basis for establishing any total allowable level of foreign fishing (TALFF).

(B) Part of the OY may be held as a reserve to allow for domestic annual harvest (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.

(C) *DAH*. Councils and/or the Secretary 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.

(D) *Domestic annual processing (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).

(E) *Joint venture processing (JVP)*. When DAH exceeds DAP, the surplus is available for JVP.

(f) *Acceptable biological catch and annual catch limits*—(1) *Definitions*—(i) *Catch* is the total quantity of fish, measured in weight or numbers of fish, taken in commercial, recreational, subsistence, tribal, and other fisheries. Catch includes fish that are retained for any purpose, as well as mortality of fish that are discarded.

(ii) *Acceptable biological catch (ABC)* is a level of a stock or stock complex's annual catch, which is based on an ABC control rule that accounts for the scientific uncertainty in the estimate of OFL, any other scientific uncertainty, and the Council's risk policy.

(iii) *Annual catch limit (ACL)* is a limit on the total annual catch of a stock or stock complex, which cannot exceed the ABC, that serves as the basis for invoking AMs. An ACL may be divided into sector-ACLs (see paragraph (f)(4) of this section).

(iv) *Control rule* is a policy for establishing a limit or target catch level that is based on the best scientific information available and is established by the Council in consultation with its SSC.

(v) *Management uncertainty* refers to uncertainty in the ability of managers to constrain catch so that the ACL is not exceeded, and the uncertainty in quantifying the true catch amounts (i.e., estimation errors). The sources of management uncertainty could include: late catch reporting; misreporting; underreporting of catches; lack of sufficient inseason management, including inseason closure authority; or other factors.

(vi) *Scientific uncertainty* refers to uncertainty in the information about a stock and its reference points. Sources of scientific uncertainty could include: uncertainty in stock assessment results; uncertainty in the estimates of MFMT, MSST, the biomass of the stock, and OFL; time lags in updating assessments; the degree of retrospective revision of assessment results; uncertainty in projections; uncertainties due to the choice of assessment model; longer-term uncertainties due to potential ecosystem and environmental effects; or other factors.

(2) *ABC control rule*—(i) For stocks and stock complexes required to have an ABC, each Council must establish an ABC control rule that accounts for scientific uncertainty in the OFL and the Council's risk policy. The Council's risk policy could be based, on an acceptable probability (at least 50 percent) that catch equal to the stock's ABC will not result in overfishing, but other appropriate methods can be used. When determining the risk policy, Councils could consider the economic, social, and ecological trade-offs between being more or less risk averse. The Council's choice of a risk policy cannot result in an ABC that exceeds the OFL. The process of establishing an ABC control rule may involve science advisors or the peer review process established under Magnuson-Stevens Act section 302(g)(1)(E).

(ii) The ABC control rule must articulate how ABC will be set compared to the OFL based on the scientific knowledge about the stock or stock complex and taking into account scientific uncertainty (see paragraph (f)(1)(vi) of this section). The ABC control rule should consider reducing fishing mortality as stock size declines below  $B_{msy}$  and as scientific uncertainty increases, and may establish a stock abundance level below which directed fishing would not be allowed. When scientific uncertainty cannot be directly calculated, such as when proxies are used, then a proxy for the uncertainty itself should be established based on the best scientific information, including comparison to other stocks. The control rule may be used in a tiered approach to address different levels of scientific uncertainty. Councils can develop ABC control rules that allow for changes in catch limits to be phased-in over time or to account for the carry-over of some of the unused portion of the ACL from one year to the next; in which case, the Council must provide a comprehensive analysis and articulate within their FMP when the control rule can and cannot be used and how the control rule prevents overfishing.

(A) *Phase-in ABC control rules*. Large changes in catch limits due to new scientific information about the status of the stock can have negative short-term effects on a fishing industry. To help stabilize catch levels as stock assessments are updated, a Council may choose to develop a control rule that phases in changes to ABC over a period of time, not to exceed 3 years, as long as overfishing is prevented.

(B) *Carry-over ABC control rules*. An ABC control rule may include provisions for carry-over of some of the unused portion of the ACL from one year to increase the ABC for the next year, based on the increased stock abundance resulting from the fishery harvesting less than the full ACL. The resulting ABC recommended by the SSC must prevent overfishing and consider scientific uncertainty consistent with the Council's risk policy. In cases where an ACL has been reduced from the ABC, carry-over provisions may not require the ABC to be re-specified if the ACL can be adjusted upwards so that it is equal to or below the existing ABC.

(3) *Specification of ABC*. ABC may not exceed OFL (see paragraph (e)(2)(i)(D) of this section). Councils and their SSC should develop a process by which the SSC can access the best scientific information available regarding implementation of the ABC control rule. An SSC may recommend an ABC that differs from the result of the ABC control rule calculation, based on factors such as data uncertainty, recruitment variability, declining trends in population variables, and other factors, but must provide an explanation for the deviation. For Secretarial FMPs or amendments, agency scientists or a peer review process would provide the scientific advice to establish ABC. For internationally-assessed stocks, an ABC as defined in these guidelines is not required if stocks fall under the international exception (see paragraph (h)(1)(ii) of this section). While the ABC is allowed to equal OFL, NMFS expects that in most cases ABC will be reduced from OFL to reduce the probability that overfishing might occur in a year.

(i) *Expression of ABC*. ABC should be expressed in terms of catch, but may be expressed in terms of landings as long as estimates of bycatch and any other fishing mortality not accounted for in the landings are incorporated into the determination of ABC.

(ii) *ABC for overfished stocks*. For overfished stocks and stock complexes, a rebuilding ABC must be set to reflect the annual catch that is consistent with the schedule of fishing mortality rates (i.e.,  $F_{rebuild}$ ) in the rebuilding plan.

(4) *Setting the annual catch limit*—(i) *General.* ACL cannot exceed the ABC and may be set annually or on a multiyear plan basis. ACLs in coordination with AMs must prevent overfishing (see MSA section 303(a)(15)). If an Annual Catch Target (ACT) is not used, management uncertainty should be accounted for in the ACL. If a Council recommends an ACL which equals ABC, and the ABC is equal to OFL, the Secretary may presume that the proposal would not prevent overfishing, in the absence of sufficient analysis and justification for the approach. A “multiyear plan” as referenced in section 303(a)(15) of the Magnuson-Stevens Act is a plan that establishes harvest specifications or harvest guidelines for each year of a time period greater than 1 year. A multiyear plan must include a mechanism for specifying ACLs for each year with appropriate AMs to prevent overfishing and maintain an appropriate rate of rebuilding if the stock or stock complex is in a rebuilding plan. A multiyear plan must provide that, if an ACL is exceeded for a year, then AMs are implemented for the next year consistent with paragraph (g)(3) of this section.

(ii) *Sector-ACLs.* A Council may, but is not required to, divide an ACL into sector-ACLs. If sector-ACLs are used, sector-AMs should also be specified. “Sector,” for purposes of this section, means a distinct user group to which separate management strategies and separate catch quotas apply. Examples of sectors include the commercial sector, recreational sector, or various gear groups within a fishery. If the management measures for different sectors differ in the degree of management uncertainty, then sector-ACLs may be necessary so that appropriate AMs can be developed for each sector. If a Council chooses to use sector-ACLs, the sum of sector-ACLs must not exceed the stock or stock complex level ACL. The system of ACLs and AMs designed must be effective in protecting the stock or stock complex as a whole. Even if sector-ACLs and AMs are established, additional AMs at the stock or stock complex level may be necessary.

(iii) *ACLs for State-Federal Fisheries.* For stocks or stock complexes that have harvest in state or territorial waters, FMPs and FMP amendments should include an ACL for the overall stock that may be further divided. For example, the overall ACL could be divided into a Federal-ACL and state-ACL. However, NMFS recognizes that Federal management is limited to the portion of the fishery under Federal authority. See

16 U.S.C. 1856. When stocks are co-managed by Federal, state, tribal, and/or territorial fishery managers, the goal should be to develop collaborative conservation and management strategies, and scientific capacity to support such strategies (including AMs for state or territorial and Federal waters), to prevent overfishing of shared stocks and ensure their sustainability.

(iv) *Relationship between OY and the ACL framework.* The dual goals of NS1 are to prevent overfishing and achieve on a continuing basis OY. The ABC is an upper limit on catch and is designed to prevent overfishing. As described in paragraph (e)(3) of this section, ecological, economic, and social factors, as well as values associated with determining the greatest benefit to the Nation, are important considerations in specifying OY. These OY considerations can also be considered in the ACL framework. For example, an ACL (or ACT) could be set lower than the ABC to account for OY considerations (e.g., needs of forage fish, promoting stability, addressing market conditions, etc.). Additionally, economic, social, or ecological trade-offs could be evaluated when determining the risk policy for an ABC control rule (see paragraph (f)(2) of this section). While OY is a long-term average amount of desired yield, there is, for each year, an amount of fish that is consistent with achieving the long-term OY. A Council can choose to express OY on an annual basis, in which case the FMP or FMP amendment should indicate that the OY is an “annual OY.” An annual OY cannot exceed the ACL.

(g) *Accountability measures (AMs)*—(1) *Introduction.* AMs are management controls to prevent ACLs, including sector-ACLs, from being exceeded, and to correct or mitigate overages of the ACL if they occur. AMs should address and minimize both the frequency and magnitude of overages and correct the problems that caused the overage in as short a time as possible. NMFS identifies two categories of AMs, inseason AMs and AMs for when the ACL is exceeded. The FMP should identify what sources of data will be used to implement AMs (e.g., inseason data, annual catch compared to the ACL, or multi-year averaging approach).

(2) *Inseason AMs.* Whenever possible, FMPs should include inseason monitoring and management measures to prevent catch from exceeding ACLs. Inseason AMs could include, but are not limited to: an annual catch target (see paragraph (g)(4) of this section); closure of a fishery; closure of specific areas; changes in gear; changes in trip size or bag limits; reductions in effort; or other

appropriate management controls for the fishery. If final data or data components of catch are delayed, Councils should make appropriate use of preliminary data, such as landed catch, in implementing inseason AMs. FMPs should contain inseason closure authority giving NMFS the ability to close fisheries if it determines, based on data that it deems sufficiently reliable, that an ACL has been exceeded or is projected to be reached, and that closure of the fishery is necessary to prevent overfishing. For fisheries without inseason management control to prevent the ACL from being exceeded, AMs should utilize ACTs that are set below ACLs so that catches do not exceed the ACL.

(3) *AMs for when the ACL is exceeded.* On an annual basis, the Council must determine as soon as possible after the fishing year if an ACL was exceeded. If an ACL was exceeded, AMs must be implemented as soon as possible to correct the operational issue that caused the ACL overage, as well as any biological consequences to the stock or stock complex resulting from the overage when it is known. These AMs could include, among other things, modifications of inseason AMs, the use or modification of ACTs, or overage adjustments. The type of AM chosen by a Council will likely vary depending on the sector of the fishery, status of the stock, the degree of the overage, recruitment patterns of the stock, or other pertinent information. If an ACL is set equal to zero and the AM for the fishery is a closure that prohibits fishing for a stock, additional AMs are not required if only small amounts of catch or bycatch occur, and the catch or bycatch is unlikely to result in overfishing. For stocks and stock complexes in rebuilding plans, the AMs should include overage adjustments that reduce the ACLs in the next fishing year by the full amount of the overage, unless the best scientific information available shows that a reduced overage adjustment, or no adjustment, is needed to mitigate the effects of the overage.

(4) *Annual Catch Target (ACT) and ACT control rule.* ACTs are recommended in the system of AMs so that ACL is not exceeded. An ACT is an amount of annual catch of a stock or stock complex that is the management target of the fishery, and accounts for management uncertainty in controlling the catch at or below the ACL. ACT control rules can be used to articulate how management uncertainty is accounted for in setting the ACT. ACT control rules can be developed by the Council, in coordination with the SSC,

to help the Council account for management uncertainty.

(5) *AMs based on multi-year average data.* Some fisheries have highly variable annual catches and lack reliable inseason or annual data on which to base AMs. If there are insufficient data upon which to compare catch to ACL, AMs could be based on comparisons of average catch to average ACL over a three-year moving average period or, if supported by analysis, some other appropriate multi-year period. Councils should explain why basing AMs on a multi-year period is appropriate. Evaluation of the moving average catch to the average ACL must be conducted annually, and if the average catch exceeds the average ACL, appropriate AMs should be implemented consistent with paragraph (g)(3) of this section.

(6) *AMs for State-Federal fisheries.* For stocks or stock complexes that have harvest in state or territorial waters, FMPs and FMP amendments must, at a minimum, have AMs for the portion of the fishery under Federal authority. Such AMs could include closing the EEZ when the Federal portion of the ACL is reached, or the overall stock's ACL is reached, or other measures.

(7) *Performance standard.* If catch exceeds the ACL for a given stock or stock complex more than once in the last four years, the system of ACLs and AMs should be reevaluated, and modified if necessary, to improve its performance and effectiveness. If AMs are based on multi-year average data, the performance standard is based on a comparison of the average catch to the average ACL. A Council could choose a higher performance standard (e.g., a stock's catch should not exceed its ACL more often than once every five or six years) for a stock that is particularly vulnerable to the effects of overfishing, if the vulnerability of the stock has not already been accounted for in the ABC control rule.

(h) *Establishing ACL mechanisms and AMs in FMPs.* FMPs or FMP amendments must establish ACL mechanisms and AMs for all stocks and stock complexes that require conservation and management (see § 600.305(c)), unless paragraph (h)(1) of this section is applicable. These mechanisms should describe the annual or multiyear process by which ACLs, AMs, and other reference points such as OFL, and ABC will be established.

(1) *Exceptions from ACL and AM requirements—(i) Life cycle.* Section 303(a)(15) of the Magnuson-Stevens Act “shall not apply to a fishery for species that has a life cycle of approximately 1 year unless the Secretary has determined the fishery is subject to

overfishing of that species” (as described in Magnuson-Stevens Act section 303 note). This exception applies to a stock for which the average age of spawners in the population is approximately 1 year or less. While exempt from the ACL and AM requirements, FMPs or FMP amendments for these stocks must have SDC, MSY, OY, ABC, and an ABC control rule.

(ii) *International fishery agreements.* Section 303(a)(15) of the Magnuson-Stevens Act applies “unless otherwise provided for under an international agreement in which the United States participates” (Magnuson-Stevens Act section 303 note). This exception applies to stocks or stock complexes subject to management under an international agreement, which is defined as “any bilateral or multilateral treaty, convention, or agreement which relates to fishing and to which the United States is a party” (see Magnuson-Stevens Act section 3(24)). These stocks would still need to have SDC, MSY, and OY.

(2) *Flexibility in application of NS1 guidelines.* There are limited circumstances that may not fit the standard approaches to specification of reference points and management measures set forth in these guidelines. These include, among other things, conservation and management of Endangered Species Act listed species, harvests from aquaculture operations, stocks with unusual life history characteristics (e.g., Pacific salmon, where the spawning potential is concentrated in one year), and stocks for which data are not available either to set reference points based on MSY or MSY proxies, or manage to reference points based on MSY or MSY proxies. In these circumstances, Councils may propose alternative approaches for satisfying requirements of the Magnuson-Stevens Act other than those set forth in these guidelines. Councils must document their rationale for any alternative approaches in an FMP or FMP amendment, which will be reviewed for consistency with the Magnuson-Stevens Act.

(i) *Fisheries data.* In their FMPs, or associated public documents such as SAFE reports as appropriate, Councils must describe general data collection methods, as well as any specific data collection methods used for all stocks and stock complexes in their FMPs, including:

(1) Sources of fishing mortality (both landed and discarded), including commercial and recreational catch and bycatch in other fisheries;

(2) Description of the data collection and estimation methods used to quantify total catch mortality in each fishery, including information on the management tools used (i.e., logbooks, vessel monitoring systems, observer programs, landings reports, fish tickets, processor reports, dealer reports, recreational angler surveys, or other methods); the frequency with which data are collected and updated; and the scope of sampling coverage for each fishery; and

(3) Description of the methods used to compile catch data from various catch data collection methods and how those data are used to determine the relationship between total catch at a given point in time and the ACL for stocks and stock complexes that require conservation and management.

(j) *Council actions to address overfishing and rebuilding for stocks and stock complexes—(1) Notification.* The Secretary will immediately notify in writing a Regional Fishery Management Council whenever it is determined that:

(i) Overfishing is occurring;

(ii) A stock or stock complex is overfished;

(iii) A stock or stock complex is approaching an overfished condition; or

(iv) 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.

(2) *Timing of actions—(i) If a stock or stock complex is undergoing overfishing.* Upon notification that a stock or stock complex is undergoing overfishing, a Council should immediately begin working with its SSC (or agency scientists or peer review processes in the case of Secretariially-managed fisheries) to ensure that the ABC is set appropriately to end overfishing. Councils should evaluate the cause of overfishing, address the issue that caused overfishing, and reevaluate their ACLs and AMs to make sure they are adequate.

(ii) *If a stock or stock complex is overfished or approaching an overfished condition.* Upon notification that a stock or stock complex is overfished or approaching an overfished condition, a Council must prepare and implement an FMP, FMP amendment, or proposed regulations within two years of notification, consistent with the requirements of section 304(e)(3) of the Magnuson-Stevens Act. Council actions should be submitted to NMFS within 15 months of notification to ensure sufficient time for the Secretary to implement the measures, if approved.

(3) *Overfished fishery.* (i) Where a stock or stock complex is overfished, a Council must specify a time period for rebuilding the stock or stock complex based on factors specified in Magnuson-Stevens Act section 304(e)(4). This target time for rebuilding ( $T_{\text{target}}$ ) shall be as short as possible, taking into account: the status and biology of any overfished stock, the needs of fishing communities, recommendations by international organizations in which the U.S. participates, and interaction of the stock within the marine ecosystem. In addition, the time period shall not exceed 10 years, except where biology of the stock, other environmental conditions, or management measures under an international agreement to which the U.S. participates, dictate otherwise. SSCs (or agency scientists or peer review processes in the case of Secretarial actions) shall provide recommendations for achieving rebuilding targets (see Magnuson-Stevens Act section 302(g)(1)(B)). The above factors enter into the specification of  $T_{\text{target}}$  as follows:

(A) *The minimum time for rebuilding a stock ( $T_{\text{min}}$ ).*  $T_{\text{min}}$  means the amount of time the stock or stock complex is expected to take to rebuild to its MSY biomass level in the absence of any fishing mortality. In this context, the term “expected” means to have at least a 50 percent probability of attaining the  $B_{\text{msy}}$ , where such probabilities can be calculated. The starting year for the  $T_{\text{min}}$  calculation should be the first year that the rebuilding plan is expected to be implemented.

(B) *The maximum time for rebuilding a stock or stock complex to its  $B_{\text{msy}}$  ( $T_{\text{max}}$ ).* (1) If  $T_{\text{min}}$  for the stock or stock complex is 10 years or less, then  $T_{\text{max}}$  is 10 years.

(2) If  $T_{\text{min}}$  for the stock or stock complex exceeds 10 years, then one of the following methods can be used to determine  $T_{\text{max}}$ :

(i)  $T_{\text{min}}$  plus the length of time associated with one generation time for that stock or stock complex.

“Generation time” is the average length of time between when an individual is born and the birth of its offspring.

(ii) The amount of time the stock or stock complex is expected to take to rebuild to  $B_{\text{msy}}$  if fished at 75 percent of MFMT, or

(iii)  $T_{\text{min}}$  multiplied by two.

(3) When selecting a method for determining  $T_{\text{max}}$ , a Council must provide a rationale for its decision based on the best scientific information available.

(C) *Target time to rebuilding a stock or stock complex ( $T_{\text{target}}$ ).*  $T_{\text{target}}$  is the specified time period for rebuilding a

stock that is considered to be in as short a time as possible, while taking into account the factors described in paragraph (j)(3)(i) of this section.  $T_{\text{target}}$  shall not exceed  $T_{\text{max}}$ , and the fishing mortality associated with achieving  $T_{\text{target}}$  is referred to as  $F_{\text{rebuild}}$ .

(ii) Council action addressing an overfished fishery must allocate both overfishing restrictions and recovery benefits fairly and equitably among sectors of the fishery.

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

(iv) *Adequate Progress.* The Secretary shall review rebuilding plans at routine intervals that may not exceed two years to determine whether the plans have resulted in adequate progress toward ending overfishing and rebuilding affected fish stocks (MSA section 304(e)(7)). Such reviews could include the review of recent stock assessments, comparisons of catches to the ACL, or other appropriate performance measures. The Secretary may find that adequate progress is not being made if  $F_{\text{rebuild}}$  or the ACL associated with  $F_{\text{rebuild}}$  are exceeded, and AMs are not correcting the operational issue that caused the overage and addressing any biological consequences to the stock or stock complex resulting from the overage when it is known (see paragraph (g)(3) of this section). A lack of adequate progress may also be found when the rebuilding expectations of a stock or stock complex are significantly changed due to new and unexpected information about the status of the stock. If a determination is made under this provision, the Secretary will notify the appropriate Council and recommend further conservation and management measures, and the Council must develop and implement a new or revised rebuilding plan within two years (see MSA sections 304(e)(3) and (e)(7)(B)). For Secretarially-managed fisheries, the Secretary would take immediate action necessary to achieve adequate progress toward ending overfishing and rebuilding.

(v) While a stock or stock complex is rebuilding, revising rebuilding timeframes (i.e.,  $T_{\text{target}}$  and  $T_{\text{max}}$ ) or  $F_{\text{rebuild}}$  is not necessary, unless the Secretary finds that adequate progress is not being made.

(vi) If a stock or stock complex has not rebuilt by  $T_{\text{max}}$ , then the fishing mortality rate should be maintained at its current  $F_{\text{rebuild}}$  or 75 percent of the MFMT, whichever is less, until the stock or stock complex is rebuilt or the

Secretary finds that adequate progress is not being made.

(4) *Emergency actions and interim measures.* If a Council is developing a rebuilding plan or revising an existing rebuilding plan due to a lack of adequate progress (see MSA section 304(e)(7)), the Secretary may, in response to a Council request, implement interim measures that reduce, but do not necessarily end, overfishing (see MSA section 304(e)(6)) if all of the following criteria are met:

(i) The interim measures are needed to address an unanticipated and significantly changed understanding of the status of the stock or stock complex;

(ii) Ending overfishing immediately is expected to result in severe social and/or economic impacts to a fishery; and

(iii) The interim measures will ensure that the stock or stock complex will increase its current biomass through the duration of the interim measures.

(5) *Discontinuing a rebuilding plan based on new scientific information.* A Council may discontinue a rebuilding plan for a stock or stock complex before it reaches  $B_{\text{msy}}$ , if all of the following criteria are met:

(i) The Secretary determines that the stock was not overfished in the year that the overfished determination (see MSA section 304(e)(3)) was based on; and

(ii) The biomass of the stock is not currently below the MSST.

(6) *Management measures for depleted stocks.* In cases where an overfished stock or stock complex is considered to be “depleted” (see paragraph (e)(2)(i)(F) of this section), a Council may identify in its rebuilding plan additional management measures or initiatives that could improve the status of the stock, such as: reevaluating SDCs to determine if they are representative of current environmental conditions, recommending the restoration of habitat and other ameliorative programs, identifying research priorities to improve the Councils understanding of the impediments to rebuilding, or partnering with Federal and state agencies to address non-fishing related impacts.

(k) *International overfishing.* If the Secretary determines that a fishery is overfished or approaching a condition of being overfished due to excessive international fishing pressure, and for which there are no management measures (or no effective measures) to end overfishing under an international agreement to which the United States is a party, then the Secretary and/or the appropriate Council shall take certain actions as provided under Magnuson-Stevens Act section 304(i). The



Secretary, in cooperation with the Secretary of State, must immediately take appropriate action at the international level to end the overfishing. In addition, within one year after the determination, the Secretary and/or appropriate Council shall:

(1) Develop recommendations for domestic regulations to address the relative impact of the U.S. fishing vessels on the stock. Council recommendations should be submitted to the Secretary.

(2) Develop and submit recommendations to the Secretary of State, and to the Congress, for international actions that will end overfishing in the fishery and rebuild the affected stocks, taking into account the relative impact of vessels of other nations and vessels of the United States on the relevant stock. Councils should, in consultation with the Secretary, develop recommendations that take into consideration relevant provisions of the Magnuson-Stevens Act and NS1 guidelines, including section 304(e) of the Magnuson-Stevens Act and paragraph (j)(3)(iii) of this section, and other applicable laws. For highly migratory species in the Pacific, recommendations from the Western Pacific, North Pacific, or Pacific Councils must be developed and submitted consistent with Magnuson-Stevens Reauthorization Act section 503(f), as appropriate.

(3) *Considerations for assessing "relative impact"*. "Relative impact" under paragraphs (k)(1) and (2) of this section may include consideration of factors that include, but are not limited to: Domestic and international management measures already in place, management history of a given nation, estimates of a nation's landings or catch (including bycatch) in a given fishery, and estimates of a nation's mortality contributions in a given fishery. Information used to determine relative impact must be based upon the best available scientific information.

(l) *Relationship of National Standard 1 to other national standards—General*. National Standards 2 through 10 provide further requirements for conservation and management measures in FMPs (see MSA section 301(a)), and guidelines for these standards are provided in §§ 600.315 through 600.355. Below is a description of how some of the other National Standards intersect with National Standard 1.

(1) *National Standard 2* (see § 600.315). Management measures and reference points to implement NS1 must be based on the best scientific information available. When data are insufficient to estimate reference points

directly, Councils should develop reasonable proxies to the extent possible (also see paragraph (e)(1)(v)(B) of this section). In cases where scientific data are severely limited, effort should also be directed to identifying and gathering the needed data. SSCs should advise their Councils regarding the best scientific information available for fishery management decisions.

(2) *National Standard 3* (see § 600.320). Reference points should generally be specified in terms of the level of stock aggregation for which the best scientific information is available (also see paragraphs (e)(1)(ii) and (iii) of this section).

(3) *National Standard 6* (see § 600.335). Councils must build into the reference points and control rules appropriate consideration of risk, taking into account uncertainties in estimating harvest, stock conditions, life history parameters, or the effects of environmental factors.

(4) *National Standard 8* (see § 600.345). National Standard 8 addresses economic and social considerations and minimizing to the extent practicable adverse economic impacts on fishing communities within the context of preventing overfishing and rebuilding overfished stocks as required under National Standard 1. Calculation of OY as reduced from MSY also includes consideration of economic and social factors, but the combination of management measures chosen to achieve the OY must principally be designed to prevent overfishing and rebuild overfished stocks.

(5) *National Standard 9* (see § 600.350). Evaluation of stock status with respect to reference points must take into account mortality caused by bycatch. In addition, the estimation of catch should include the mortality of fish that are discarded.

(m) *Exceptions to requirements to prevent overfishing*. Exceptions to the requirement to prevent overfishing could apply under certain limited circumstances. Harvesting one stock at its optimum level may result in overfishing of another stock when the two stocks tend to be caught together (This can occur when the two stocks are part of the same fishery or if one is bycatch in the other's fishery). Before a Council may decide to allow this type of overfishing, an analysis must be performed and the analysis 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 stock or stock complex falling below its MSST. The Council may decide to allow this type of overfishing

if the fishery is not overfished and the analysis demonstrates that all of the following conditions are satisfied:

(1) Such action will result in long-term net benefits to the Nation;

(2) Mitigating measures have been considered and it has been demonstrated 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; and

(3) The resulting rate of fishing mortality will not cause any stock or stock complex to fall below its MSST more than 50 percent of the time in the long term, although it is recognized that persistent overfishing is expected to cause the affected stock to fall below its  $B_{msy}$  more than 50 percent of the time in the long term.

■ 4. Section 600.320 is revised to read as follows:

**§ 600.320 National Standard 3—Management Units.**

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

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

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

(d) *Management unit*. The term "management unit" means a fishery or that portion of a fishery identified in an FMP as relevant to the FMP's management objectives. Stocks in the fishery management unit are considered to be in need of conservation and management (see § 600.305(c)).

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

(2) *Conservation and management measures*. FMPs should include conservation and management measures for that part of the management unit within U.S. waters, although the Secretary can ordinarily implement them only within the EEZ. The measures need not be identical for each geographic area within the management unit, if the FMP justifies the differences. A management unit may contain stocks of fish for which there is not enough information available to specify MSY and OY or their proxies.

(e) *Analysis*. An FMP should include discussion of the following:

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

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

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

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

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

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

(iii) By referring to treaties or cooperative agreements.

■ 5. Section 600.340 is revised to read as follows:

**§ 600.340 National Standard 7—Costs and Benefits.**

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

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

(c) *Analysis*. The supporting analyses for FMPs should demonstrate that the benefits of fishery regulation are real and substantial relative to the added research, administrative, and enforcement costs, as well as costs to the industry of compliance. In determining the benefits and costs of management measures, each management strategy considered and its impacts on different user groups in the fishery should be evaluated. This requirement need not produce an elaborate, formalistic cost/benefit

analysis. Rather, an evaluation of effects and costs, especially of differences among workable alternatives, including the status quo, is adequate. If quantitative estimates are not possible, qualitative estimates will suffice.

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

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

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