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 and other MSA provisions. Calculation of OY as reduced from maximum sustainable yield (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.

[81 FR 71893, Oct. 18, 2016]

§ 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 in an FMP;

(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 an FMP's 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 both the SSC and peer review process should work in conjunction with each other. 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, 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.*, EC species or stocks that the fishery interacts with but are managed primarily under another FMP, *see* § 600.305(c)(5) through (6)) do not require ACLs, other reference points, or 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)).

(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, 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, but it must be based on the best scientific information available (*see* § 600.315), 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 (i.e. F), on an annual basis, 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) *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.

(G) *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 specify a method used to determine the overfishing status for each stock or stock complex. For domestically-managed stocks or stock complexes, one of the following methods (described in (e)(2)(ii)(A)(*1*) and (*2*) of this section) should be specified. If the necessary data to use one of the methods described in either subparagraph (e)(2)(ii)(A)(*1*) or (*2*) is not available, a Council may use an alternate type of overfishing SDC as described in paragraph (e)(2)(ii).

(1) Fishing Mortality Rate Exceeds MFMT. Exceeding the MFMT for a period of 1 year constitutes overfishing.

(2) Catch Exceeds the OFL. Exceeding the annual OFL for 1 year constitutes overfishing.

(*3*) *Multi-Year Approach to Determine Overfishing Status.* Subparagraphs (e)(2)(ii)(A) (1) and (2) establish methods to determine overfishing status based on a period of 1 year. As stated in paragraph (e)(2)(ii)(A), a Council should specify, within the FMP, which of these methods will be used to determine overfishing status. However, in certain circumstances, a Council may utilize a multi-year approach to determine overfishing status based on a period of no more than 3 years. The Council should identify in its FMP or FMP amendment, circumstances when the multi-year approach is appropriate and will be used. Such circumstances may include situations where there is high uncertainty in the estimate of F in the most recent year, cases where stock abundance fluctuations are high and assessments are not timely enough to forecast such changes, or other circumstances where the most recent catch or F data does not reflect the overall status of the stock. The multi-year approach to determine overfishing status may not be used to specify future annual catch limits at levels that do not prevent overfishing.

(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 ½ 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 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 may 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 OY 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 these measures cannot meet the dual requirements of NS1 (preventing overfishing while achieving, on a continuing basis, OY), Councils should either modify the measures or reexamine their OY specifications to ensure that the dual NS1 requirements can be met.

(iii) *Assessing OY.* An FMP must contain an assessment and specification of OY (MSA section 303(a)(3)). The assessment should include: a summary of information utilized in making such specification; an explanation of how the OY specification will produce the greatest benefits to the nation and prevent overfishing and rebuild overfished stocks; and a consideration of the economic, social, and ecological factors

relevant to the 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 tribal 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 EC 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 considered to be consistent with OY requirements under the MSA and these guidelines.

(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 for the Council's risk policy, and that is based on a comprehensive analysis that shows how the control rule prevents overfishing. 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 fishing would not be allowed. When scientific uncertainty cannot be directly calculated, such as when proxies are used, then a proxy for the uncertainty 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. The Council must articulate within its FMP when the phase-in and/or carry-over provisions of the control rule can and cannot be used and how each provision prevents overfishing, based on a comprehensive analysis.

(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 each year (*i.e.*, the phased-in catch level cannot

exceed the OFL in any year). In addition, the Councils should evaluate the appropriateness of phase-in provisions for stocks that are overfished and/or rebuilding, as the overriding goal for such stocks is to rebuild them in as short a time as possible.

(B) *Carry-over ABC control rules.* An ABC control rule may include provisions for the carry-over of some of the unused portion of an ACL (*i.e.*, an ACL underage) 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 must consider scientific uncertainty consistent with the Council's risk policy. Carry-over provisions could also allow an ACL to be adjusted upwards as long as the revised ACL does not exceed the specified ABC. When considering whether to use a carry-over provision, Councils should consider the likely reason for the ACL underage. ACL underages that result from management uncertainty (*e.g.*, premature fishery closure) may be appropriate circumstances for considering a carry-over provision. ACL underages that occur as a result of poor or unknown stock status may not be appropriate to consider in a carry-over provision. In addition, the Councils should evaluate the appropriateness of carry-over provisions for stocks that are overfished and/or rebuilding, as the overriding goal for such stocks is to rebuild them in as short a time as possible.

(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 when implementing the ABC control rule (*i.e.*, specifying the ABC). The SSC must recommend the ABC to the Council. 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.

(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), or functional equivalent, 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 sector-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 OY on a continuing basis. The ABC is an upper limit on catch that prevents overfishing within an established framework of risk and other considerations. 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 types of 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 ecological, economic, and social factors (*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 (including bycatch) occur, and the catch 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, or the functional equivalent, 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 have a life cycle of approximately 1 year unless the Secretary has determined the fishery is subject to overfishing of that species'' (Pub. L. 109–479 104(b)(2)). 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'' (Pub. L. 109–479 104(b)(1)). 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 for a stock is spread over a multi-year period), and stocks for which data are not available either to set reference points based on MSY or MSY proxies, or to 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 (*e.g.*, 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 the Secretary determines 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 (*see* MSA section 304(e)).

(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 Secretarially-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_{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_{target} as follows:

(A) *The minimum time for rebuilding a stock (T_{min})*. T_{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 $B_{msy,}$ where such probabilities can be calculated. The starting year for the T_{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_{msy} (T_{max})*.

(*1*) If T_{min} for the stock or stock complex is 10 years or less, then T_{max} is 10 years.

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

(*i*) T_{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_{msy} if fished at 75 percent of MFMT, or

(*iii*) T_{min} multiplied by two.

(*3*) In situations where T_{min} exceeds 10 years, T_{max} establishes a maximum time for rebuilding that is linked to the biology of the stock. When selecting a method for determining $T_{max,}$ a Council, in consultation with its SSC, should consider the relevant biological data and scientific uncertainty of that data, and must provide a rationale for its decision based on the best scientific information available. One of the methods listed in subparagraphs (j)(3)(i)(B)(*2*)(*ii*) and (*iii*) may be appropriate, for example, if given data availability and the life history characteristics of the stock, there is high uncertainty in the estimate of generation time, or if generation time does not accurately reflect the productivity of the stock.

(C) *Target time to rebuilding a stock or stock complex (T_{target})*. T_{target} is the specified time period for rebuilding a stock that is considered to be as short a time as possible, taking into account the factors described in paragraph (j)(3)(i) of this section. T_{target} shall not exceed

T_{max}, and the fishing mortality associated with achieving T_{target} is referred to as $F_{rebuild}$.

(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 $F_{rebuild}$ or the ACL associated with $F_{rebuild}$ is exceeded, and AMs are not correcting the operational issue that caused the overage, nor 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 rebuilding and ending overfishing.

(v) While a stock or stock complex is rebuilding, revising rebuilding timeframes (*i.e.*, T_{target} and T_{max}) or $F_{rebuild}$ 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_{max}, then the fishing mortality rate should be maintained at its current $F_{rebuild}$ or 75 percent of the MFMT, whichever is less, until the stock or stock complex is rebuilt or the fishing mortality rate is changed as a result of the Secretary finding 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_{msy} if 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 has never been overfished in any subsequent year including the current year.

(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) *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 characteristics 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.

[81 FR 71895, Oct. 18, 2016]

§ 600.315 National Standard 2—Scientific Information.

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

(1) Fishery conservation and management require high quality and timely biological, ecological, environmental, economic, and sociological scientific information to effectively conserve and manage living marine resources. Successful fishery management depends, in part, on the thorough analysis of this information, and the extent to which the information is applied for:

(i) Evaluating the potential impact that conservation and management measures will have on living marine resources, essential fish habitat (EFH),