

TITLE 50 -- WILDLIFE AND FISHERIES
CHAPTER VI -- FISHERY CONSERVATION AND MANAGEMENT, NATIONAL
OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE
PART 600 -- MAGNUSON-STEVENSON ACT PROVISIONS
SUBPART D -- NATIONAL STANDARDS

§ 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 decisionmaking; FMPs formulated according to the guidelines will have a better chance for expeditious Secretarial review, approval, and implementation. FMPs that are in substantial compliance with the guidelines, the 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) 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) Word usage. 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) May not is proscriptive; it has the same force as "must not."

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

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

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

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

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

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

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

§ 600.310 National Standard 1 -- Optimum Yield.

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

(b) General. The determination of OY is a decisional mechanism for resolving the Magnuson-Stevens Act's multiple purposes and policies, implementing an FMP's objectives, and balancing the various interests that comprise the national welfare. OY is based on MSY, or on MSY as it may be reduced under paragraph (f)(3) of this section. The most important limitation on the specification of OY is that the choice of OY and the conservation and management measures proposed to achieve it must prevent overfishing.

(c) MSY. Each FMP should include an estimate of MSY as explained in this section.

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

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

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

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

(ii) Any MSY values used in determining OY will necessarily be estimates, and these will typically be associated with some level of uncertainty. Such estimates must be based on the best scientific information available (see § 600.315) and must incorporate appropriate consideration

of risk (see § 600.335). Beyond these requirements, however, Councils have a reasonable degree of latitude in determining which estimates to use and how these estimates are to be expressed. For example, a point estimate of MSY may be expressed by itself or together with a confidence interval around that estimate.

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

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

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

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

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

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

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

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

(ii) A minimum stock size threshold or reasonable proxy thereof. The stock size threshold should be expressed in terms of spawning biomass or other measure of productive capacity. To the extent possible, the stock size threshold should equal whichever of the following is greater: One-half the MSY stock size, or the minimum stock size at which rebuilding to the MSY level would be expected to occur within 10 years if the stock or stock complex were exploited at the maximum fishing mortality threshold specified under paragraph (d)(2)(i) of this section. Should the actual size of the stock or stock complex in a given year fall below this threshold, the stock or stock complex is considered overfished.

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

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

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

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

affect both the current size of the stock or stock complex and the long-term productive capacity of the stock or stock complex.

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

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

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

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

(i) Has sufficient scientific merit.

(ii) Contains the elements described in paragraph (d)(2) of this section.

(iii) Provides a basis for objective measurement of the status of the stock or stock complex against the criteria.

(iv) Is operationally feasible.

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

(i) It is demonstrated by analysis (paragraph (f)(6) of this section) that such action will result in long-term net benefits to the Nation.

(ii) It is demonstrated by analysis that mitigating measures have been considered and that a similar level of long-term net benefits cannot be achieved by modifying fleet behavior, gear selection/configuration, or other technical characteristic in a manner such that no overfishing would occur.

(iii) The resulting rate or level of fishing mortality will not cause any species or evolutionarily significant unit thereof to require protection under the ESA.

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

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

(i) Overfishing is occurring;

(ii) A stock or stock complex is overfished;

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

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

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

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

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

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

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

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

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

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

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

(1) The status and biology of the stock or stock complex;

(2) Interactions between the stock or stock complex and other components of the marine ecosystem (also referred to as "other environmental conditions");

(3) The needs of fishing communities;

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

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

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

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

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

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

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

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

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

(5) Interim measures. The Secretary, on his/her own initiative or in response to a Council request, may implement interim measures to reduce overfishing under section 305(c) of the Magnuson-Stevens Act, until such measures can be replaced by an FMP, FMP amendment, or regulations taking remedial action.

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

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

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

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

(2) Values in determination. In determining the greatest benefit to the Nation, these values that should be weighed are food production, recreational opportunities, and protection afforded to

marine ecosystems. They should receive serious attention when considering the economic, social, or ecological factors used in reducing MSY to obtain OY.

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

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

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

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

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

(ii) Economic factors. Examples are prudent consideration of the risk of overharvesting when a stock's size or productive capacity is uncertain, satisfaction of consumer and recreational needs, and encouragement of domestic and export markets for U.S.-harvested fish. Other factors that may be considered include the value of fisheries, the level of capitalization, the decrease in cost per unit of catch afforded by an increase in stock size, and the attendant increase in catch per unit of effort, alternate employment opportunities, and economies of coastal areas.

(iii) Ecological factors. Examples are stock size and age composition, the vulnerability of incidental or unregulated stocks in a mixed-stock fishery, predator-prey or competitive interactions, and dependence of marine mammals and birds or endangered species on a stock of fish. Also important are ecological or environmental conditions that stress marine organisms,

such as natural and manmade changes in wetlands or nursery grounds, and effects of pollutants on habitat and stocks.

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

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

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

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

(v) The determination of OY requires a specification of MSY, which may not always be possible or meaningful. However, even where sufficient scientific data as to the biological characteristics of the stock do not exist, or where the period of exploitation or investigation has not been long enough for adequate understanding of stock dynamics, or where frequent large-scale fluctuations in stock size diminish the meaningfulness of the MSY concept, the OY must still be based on the best scientific information available. When data are insufficient to estimate MSY directly, Councils should adopt other measures of productive capacity that can serve as reasonable proxies for MSY to the extent possible (also see paragraph (c)(3) of this section).

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

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

(i) Target reference points, such as OY, should be set safely below limit reference points, such as the catch level associated with the fishing mortality rate or level defined by the status determination criteria. Because it is a target reference point, OY does not constitute an absolute ceiling, but rather a desired result. An FMP must contain conservation and management

measures to achieve OY, and provisions for information collection that are designed to determine the degree to which OY is achieved on a continuing basis -- that is, to result in a long-term average catch equal to the long-term average OY, while meeting the status determination criteria. These measures should allow for practical and effective implementation and enforcement of the management regime, so that the harvest is allowed to reach OY, but not to exceed OY by a substantial amount. The Secretary has an obligation to implement and enforce the FMP so that OY is achieved. If management measures prove unenforceable -- or too restrictive, or not rigorous enough to realize OY -- they should be modified; an alternative is to reexamine the adequacy of the OY specification. Exceeding OY does not necessarily constitute overfishing. However, even if no overfishing resulted from exceeding OY, continual harvest at a level above OY would violate national standard 1, because OY was not achieved on a continuing basis.

(ii) A stock or stock complex that is below the size that would produce MSY should be harvested at a lower rate or level of fishing mortality than if the stock or stock complex were above the size that would produce MSY.

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

(6) Analysis. An FMP must contain an assessment of how its OY specification was determined (section 303(a)(3) of the Magnuson-Stevens Act). It should relate the explanation of overfishing in paragraph (d) of this section to conditions in the particular fishery and explain how its choice of OY and conservation and management measures will prevent overfishing in that fishery. A Council must identify those economic, social, and ecological factors relevant to management of a particular fishery, then evaluate them to determine the amount, if any, by which MSY exceeds OY. The choice of a particular OY must be carefully defined and documented to show that the OY selected will produce the greatest benefit to the Nation. If overfishing is permitted under paragraph (d)(6) of this section, the assessment must contain a justification in terms of overall benefits, including a comparison of benefits under alternative management measures, and an analysis of the risk of any species or ecologically significant unit thereof reaching a threatened or endangered status, as well as the risk of any stock or stock complex falling below its minimum stock size threshold.

(7) OY and foreign fishing. Section 201(d) of the Magnuson-Stevens Act provides that fishing by foreign nations is limited to that portion of the OY that will not be harvested by vessels of the United States.

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

(ii) DAP. Each FMP must assess the capacity of U.S. processors. It must also assess the amount of DAP, which is the sum of two estimates: The estimated amount of U.S. harvest that domestic processors will process, which may be based on historical performance or on surveys of the expressed intention of manufacturers to process, supported by evidence of contracts, plant expansion, or other relevant information; and the estimated amount of fish that will be harvested by domestic vessels, but not processed (e.g., marketed as fresh whole fish, used for private consumption, or used for bait).

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

§ 600.315 National Standard 2 -- Scientific Information.

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

(b) FMP development. The fact that scientific information concerning a fishery is incomplete does not prevent the preparation and implementation of an FMP (see related §§ 600.320(d)(2) and 600.340(b)).

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

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

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

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

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

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

(e) SAFE Report. (1) The SAFE report is a document or set of documents that provides Councils with a summary of information concerning the most recent biological condition of

stocks and the marine ecosystems in the FMU and the social and economic condition of the recreational and commercial fishing interests, fishing communities, and the fish processing industries. It summarizes, on a periodic basis, the best available scientific information concerning the past, present, and possible future condition of the stocks, marine ecosystems, and fisheries being managed under Federal regulation.

(i) The Secretary has the responsibility to assure that a SAFE report or similar document is prepared, reviewed annually, and changed as necessary for each FMP. The Secretary or Councils may utilize any combination of talent from Council, state, Federal, university, or other sources to acquire and analyze data and produce the SAFE report.

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

(iii) Each SAFE report must be scientifically based, and cite data sources and interpretations.

(2) Each SAFE report should contain information on which to base harvest specifications.

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

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

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

(4) Each SAFE report should contain information on which to assess the social and economic condition of the persons and businesses that rely on the use of fish resources, including fish processing industries.

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

§ 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, under 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.

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

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

(ii) Geographic -- could be an area.

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

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

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

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

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

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

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

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

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

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

- (i) By limiting the management unit's scope to that portion of the stock found in U.S. waters;
- (ii) By estimating MSY for the entire stock and then basing the determination of OY for the U.S. fishery on the portion of the stock within U.S. waters; or
- (iii) By referring to treaties or cooperative agreements.

§ 600.325 National Standard 4 -- Allocations.

(a) Standard 4. Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various U.S. fishermen, such allocation shall be:

- (1) Fair and equitable to all such fishermen.
- (2) Reasonably calculated to promote conservation.
- (3) Carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

(b) Discrimination among residents of different states. An FMP may not differentiate among U.S. citizens, nationals, resident aliens, or corporations on the basis of their state of residence. An FMP may not incorporate or rely on a state statute or regulation that discriminates against residents of another state. Conservation and management measures that have different effects on persons in various geographic locations are permissible if they satisfy the other guidelines under Standard 4. Examples of these precepts are:

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

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

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

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

(2) Analysis of allocations. Each FMP should contain a description and analysis of the allocations existing in the fishery and of those made in the FMP. The effects of eliminating an existing allocation system should be examined. Allocation schemes considered, but rejected by

the Council, should be included in the discussion. The analysis should relate the recommended allocations to the FMP's objectives and OY specification, and discuss the factors listed in paragraph (c)(3) of this section.

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

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

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

(ii) Promotion of conservation. Numerous methods of allocating fishing privileges are considered "conservation and management" measures under section 303 of the Magnuson-Stevens Act. An allocation scheme may promote conservation by encouraging a rational, more easily managed use of the resource. Or, it may promote conservation (in the sense of wise use) by optimizing the yield in terms of size, value, market mix, price, or economic or social benefit of the product. To the extent that rebuilding plans or other conservation and management measures that reduce the overall harvest in a fishery are necessary, any harvest restrictions or recovery benefits must be allocated fairly and equitably among the commercial, recreational, and charter fishing sectors of the fishery.

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

(iv) Other factors. In designing an allocation scheme, a Council should consider other factors relevant to the FMP's objectives. Examples are economic and social consequences of the scheme, food production, consumer interest, dependence on the fishery by present participants and coastal

communities, efficiency of various types of gear used in the fishery, transferability of effort to and impact on other fisheries, opportunity for new participants to enter the fishery, and enhancement of opportunities for recreational fishing.

§ 600.330 National Standard 5 -- Efficiency.

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

(b) Efficiency in the utilization of resources -- (1) General. The term "utilization" encompasses harvesting, processing, marketing, and non-consumptive uses of the resource, since management decisions affect all sectors of the industry. In considering efficient utilization of fishery resources, this standard highlights one way that a fishery can contribute to the Nation's benefit with the least cost to society: Given a set of objectives for the fishery, an FMP should contain management measures that result in as efficient a fishery as is practicable or desirable.

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

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

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

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

(1) Definition. Limited access (or limited entry) is a management technique that attempts to limit units of effort in a fishery, usually for the purpose of reducing economic waste, improving net economic return to the fishermen, or capturing economic rent for the benefit of the taxpayer or the consumer. Common forms of limited access are licensing of vessels, gear, or fishermen to reduce the number of units of effort, and dividing the total allowable catch into fishermen's quotas (a stock-certificate system). Two forms (i.e., Federal fees for licenses or permits in excess of administrative costs, and taxation) are not permitted under the Magnuson-Stevens Act, except for fees allowed under section 304(d)(2).

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

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

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

§ 600.335 National Standard 6 -- Variations and Contingencies.

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

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

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

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

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

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

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

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

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

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

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

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

§ 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) Necessity of Federal management -- (1) General. The principle that not every fishery needs regulation is implicit in this standard. The Magnuson-Stevens Act requires Councils to prepare FMPs only for overfished fisheries and for other fisheries where regulation would serve some useful purpose and where the present or future benefits of regulation would justify the costs. For example, the need to collect data about a fishery is not, by itself, adequate justification for preparation of an FMP, since there are less costly ways to gather the data (see § 600.320(d)(2)). In some cases, the FMP preparation process itself, even if it does not culminate in a document approved by the Secretary, can be useful in supplying a basis for management by one or more coastal states.

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

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

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

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

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

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

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

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

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

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

(1) Burdens. Management measures should be designed to give fishermen the greatest possible freedom of action in conducting business and pursuing recreational opportunities that are consistent with ensuring wise use of the 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.

§ 600.345 National Standard 8 -- Communities.

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

(1) Provide for the sustained participation of such communities; and

(2) To the extent practicable, minimize adverse economic impacts on such communities.

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

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

(3) The term "fishing community" means a community that is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew, and fish processors that are based in such communities. A fishing community is a social or economic group whose members reside in a specific location and share a common dependency on commercial, recreational, or subsistence fishing or on directly related fisheries-dependent services and industries (for example, boatyards, ice suppliers, tackle shops).

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

(c) Analysis. (1) FMPs must examine the social and economic importance of fisheries to communities potentially affected by management measures. For example, severe reductions of harvests for conservation purposes may decrease employment opportunities for fishermen and processing plant workers, thereby adversely affecting their families and communities. Similarly,

a management measure that results in the allocation of fishery resources among competing sectors of a fishery may benefit some communities at the expense of others.

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

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

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

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

§ 600.350 National Standard 9 -- Bycatch.

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

(1) Minimize bycatch; and

(2) To the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

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

(c) Definition -- Bycatch. The term "bycatch" means fish that are harvested in a fishery, but that are not sold or kept for personal use. Bycatch includes the discard of whole fish at sea or elsewhere, including economic discards and regulatory discards, and fishing mortality due to an encounter with fishing gear that does not result in capture of fish (i.e., unobserved fishing mortality). Bycatch does not include any fish that legally are retained in a fishery and kept for personal, tribal, or cultural use, or that enter commerce through sale, barter, or trade. Bycatch does not include fish released alive under a recreational catch-and-release fishery management program. A catch-and-release fishery management program is one in which the retention of a particular species is prohibited. In such a program, those fish released alive would not be considered bycatch. Bycatch also does not include Atlantic highly migratory species harvested in a commercial fishery that are not regulatory discards and that are tagged and released alive under a scientific tag-and-release program established by the Secretary.

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

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

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

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

(A) Population effects for the bycatch species.

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

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

(D) Effects on marine mammals and birds.

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

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

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

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

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

(J) Social effects.

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

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

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

§ 600.355 National Standard 10 -- Safety of Life at Sea.

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

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

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

(3) For the purposes of this national standard, the safety of the fishing vessel and the protection from injury of persons aboard the vessel are considered the same as "safety of human life at sea. The safety of a vessel and the people aboard is ultimately the responsibility of the master of that vessel. Each master makes many decisions about vessel maintenance and loading and about the capabilities of the vessel and crew to operate safely in a variety of weather and sea conditions. This national standard does not replace the judgment or relieve the responsibility of the vessel master related to vessel safety. The Councils, the USCG, and NMFS, through the consultation process of paragraph (d) of this section, will review all FMPs, amendments, and regulations during their development to ensure they recognize any impact on the safety of human life at sea and minimize or mitigate that impact where practicable.

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

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

(2) Gear and vessel loading requirements. A fishing vessel operates in a very dynamic environment that can be an extremely dangerous place to work. Moving heavy gear in a seaway creates a dangerous situation on a vessel. Carrying extra gear can also significantly reduce the stability of a fishing vessel, making it prone to capsizing. An FMP should consider the safety and

stability of fishing vessels when requiring specific gear or requiring the removal of gear from the water. Management measures should reflect a sensitivity to these issues and provide methods of mitigation of these situations wherever possible.

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

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

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

- (1) Setting seasons to avoid hazardous weather.
- (2) Providing for seasonal or trip flexibility to account for bad weather (weather days).
- (3) Allowing for pre- and post-season "soak time" to deploy and pick up fixed gear, so as to avoid overloading vessels with fixed gear.
- (4) Tailoring gear requirements to provide for smaller or lighter gear for smaller vessels.
- (5) Avoiding management measures that require hazardous at-sea inspections or enforcement if other comparable enforcement could be accomplished as effectively.
- (6) Limiting the number of participants in the fishery.
- (7) Spreading effort over time and area to avoid potential gear and/or vessel conflicts.
- (8) Implementing management measures that reduce the race for fish and the resulting incentives for fishermen to take additional risks with respect to vessel safety.