

# North Pacific Fishery Management Council

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June 15, 2015

National Marine Fisheries Service, NOAA  
ATTENTION: Wesley Patrick  
1315 East-West Highway, Room 13436  
Silver Spring, Maryland, 20910

SUBJECT: Comments on NMFS' Proposed Revisions to the National Standard Guidelines

Mr. Patrick:

This letter and the attached SSC comments comprise the North Pacific Fishery Management Council's formal comments on the proposed rule for revising the National Standard Guidelines (80 FR 2786). The Council appreciated your visit and presentation at our April meeting in Anchorage, which allowed for an initial exchange of ideas on the proposed changes and communicated to us your receptiveness to further improving the revised guideline language. What we provide in this letter consists of commentary on the portions of the proposed rule that we think are most likely to impact federal fishery management in the North Pacific. Additionally, where we believe alternative language would improve the intent of a proposed revision, provide greater clarity, or prevent unintended or undesired consequences, we provide specific alternative language in the attached SSC comments.

The Council is pleased to note that the revisions provide clarification in several areas:

- Confirmation of the validity of alternative approaches for characterizing /evaluating scientific uncertainty when determining ABC.
- Acknowledgement that stocks can be depleted outside of the effects of overfishing.
- Availability of additional options associated with stock rebuilding, especially as regards data-poor stocks.

The Council, however, also notes that the proposed guideline revisions may not accomplish their intended objectives where the new language is particularly vague or open-ended. In order to effectively communicate Secretarial interpretation of the national standards, the guidelines should be specific and direct without being overly prescriptive. The Council appreciates that this is a difficult balance to strike; however, we also note that any lack of clarity will illicit confusion about the compliance of existing Council FMPs and management measures. The following topics in the proposed rule are highlighted as needing additional clarity:

- The revisions referenced under Topic IV contain criteria for including stocks in FMPs that are very broad. These may limit discretion in determining which stocks should be placed in the FMP,

while de-emphasizing consideration of the costs of adding stocks to FMPs. The attached SSC comments provide an alternative streamlined approach that would be fully protective of target and non-target stocks, while also being more consistent with the language of the Act.

- The revisions referenced under Topic X leave unclear the adequacy or extent of analysis required for documenting how OY will produce the greatest benefits to the nation.
- The revisions referenced under Topic XIV provide important new guidance concerning flexibility in rebuilding timeframes, but they de-emphasize monitoring the progress of the stock relative to BMSY to such an extent that Councils may feel that the stock's biomass trajectory can be ignored entirely.

Finally, while the proposed rule preamble explains that the intent of the revised guidelines is not to require the Councils to amend their FMPs, many of the new provisions (e.g., expanding the number and types of stocks in the FMP, revisiting FMP objectives, changing how OY is assessed and documented in the FMP) may be interpreted as inconsistent with existing Alaska FMPs. It appears that these revisions would require, or at least strongly encourage, amendments to the FMPs. If that is the case, then this proposed rule would have impacts that are more than technical in nature. These impacts have not been analyzed in the RIR/IRFA prepared for the proposed rule. Before a final rule is prepared, either this analysis should be conducted or the proposed guidelines should be revised so that modifications to FMPs are explicitly stated as not required.

In conclusion, the Council notes that the differences between the topics initially considered in the ANPR and those in the proposed rule indicate that your interaction with the Councils informed the planned revisions. We hope that your consideration of the comments we provide here will elicit further improvements to the revisions. If you have any questions or concerns about the comments we have provided do not hesitate to contact us.

Sincerely,  
Chris Oliver,  
Executive Director



Attached:  
"SSC Comments on Proposed Revisions ..."  
Editorial comments on redline document

CC: Regional Fishery Management Councils

## **SSC Comments on Proposed Revisions to the Guidelines for National Standards 1, 3, and 7 of the Magnuson-Stevens Fishery Conservation and Management Act**

### **Background**

On January 20, 2015 NMFS published a proposed rule (80 FR 2786) for revisions to National Standards (NSs) 1, 3, and 7 with a June 30, 2015 comment deadline. The revisions are described by NMFS as a product of lessons learned since the implementation of annual catch limits (ACLs) and accountability measures (AMs). NMFS states that the purpose of the proposed changes is to facilitate compliance with requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) “without establishing new requirements or requiring Councils or the Secretary to revise their Fishery Management Plans.” The objectives of the revisions are “to improve and clarify the guidance within the NS guidelines, address concerns that have been raised during the implementation of [ACLs] and [AMs], and provide flexibility to address fishery management issues.”

In response to the proposed rule, the North Pacific Council formed a special working group to review the proposed rule and develop draft comments on the proposed revisions. Those comments were reviewed by the SSC during the April 2015 Council meeting; and the SSC and Council were also given a presentation on the proposed revisions by Wes Patrick of NMFS Headquarters. In its consideration of the draft comments and presentation, the SSC identified a few additional or complementary issues that it wished to communicate to the Council in addition to its endorsement of the working group’s comments. It appointed a subgroup of the SSC to work with the NS1 subgroup to blend all comments into a single report. After review by the whole SSC at the June 2015 meeting, the SSC offers this report to the Council for its review at the June 2015 Council meeting, where the Council will develop a comment letter to NMFS headquarters.

The SSC comments below are arranged according to the enumerated topics in the proposed rule preamble. Additional editorial remarks are also provided in an attached redline version of the proposed rule.

### **III. Goals and Objectives of Fishery Management Plans (FMPs).**

#### **Amended Section(s): 600.305(b)**

#### **Comments:**

600.305(b)(2) - The proposed rule suggests that Councils “should reassess the objectives of the fishery on a regular basis.” “Fishery objectives” are not addressed or mandated by the MSA, but the Council routinely reviews the “management objectives” within its groundfish FMPs and is considering doing so for its other FMPs. Within the revised guideline language itself, the added text is vague and open-ended in terms of the expected periodicity of review. We recognize that, because of the wide spectrum of objectives in FMPs, it would be difficult to develop specific criteria to guide the frequency of reassessments. Appropriately developed FMP objectives should not have to be revisited very often. If,

however, the intent of this modification is to encourage action from Councils with outdated objectives in their FMPs, then this proposed change could accomplish that.

The term “objectives of the fishery” is different than that used in the preceding paragraph 600.305(b)(1) (“management objectives to be obtained in regulating the fishery”) and the following paragraph 600.305(b)(3) relating objectives to the management process and problems of a particular fishery, while proposed 600.310(e)(3)(iii)(B) that says “Councils should consider the management objectives of their FMPs...”.

*Suggested Improvement:*

Replace “objectives of the fishery” in paragraph 600.305(b)(2) with “FMP’s management objectives.”

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

##### **Amended Section(s): 600.305(c), 600.305(d), 600.340(b)**

##### **Comments:**

600.305(c) - This section is entirely new except for items (iii) and (vi)-(x) of the enumerated factors in paragraph (1) and one sentence in paragraph (2) regarding identification of ecosystem component (EC) species at either the species or stock level. Subsection (c)(3) is responsive to the Council’s/SSC’s interest in including stocks as EC in FMPs if they do not require conservation and management, while Subsection (c)(4) allows inclusion of stocks as EC in FMPs that do not directly manage those stocks, even if those stocks are overfished.

600.305(c)(1) - This paragraph includes a (non-exhaustive) list of ten factors that “should be used by a Council when deciding whether stocks require conservation and management,” six of which were taken from the existing guidelines for NS7 (existing paragraph 600.340(b)(2)). The first factor in the list reads, “the stock is an important component of the ecosystem.” Although paragraph 600.305(c)(2) states that “no single factor is dispositive,” the inclusion of ecosystem importance as the first factor listed in paragraph (1) and its identification in paragraph (2) as one of the first three factors to consider may give the impression that all important components of the ecosystem require specification of maximum sustainable yield (MSY), optimum yield (OY), acceptable biological catch (ABC), ACL, and status determination criteria (and all other MSA 303(a) required provisions). It is not clear what problem the addition of the list in paragraph (1) is intended to solve. If the goal is to provide the Councils with more flexibility to include stocks not currently managed under FMPs, this can be accomplished without adding a list that might easily be interpreted as requiring all stocks caught to be included in FMPs. Instead of simply providing more flexibility, this list may appear to remove any discretion by the Council to decide that a stock does not require conservation and management, thereby requiring the MSA 303(a) provisions for every stock caught in every Federal fishery.

600.305(c)(3) - The proposed rule deletes the four existing criteria for determining whether a stock can be included in the EC (must be a non-target, must not be overfished, must not be likely to become overfished, must not be generally retained), thus providing significant new flexibility. To this extent, the proposed rule is responsive to the SSC’s comment on the advanced notice of proposed rule (ANPR) that the guidelines should allow overfished stocks to be listed in the EC of an FMP if those stocks are

managed primarily under another FMP. However, paragraph (4) of the proposed rule suggests that such stocks should be identified as “other managed stocks” rather than being included in the EC. Paragraph (3) is also confusing in that EC species are defined as FMP species not requiring “conservation and management,” yet the same paragraph states that they can be the object of “management measures” designed to minimize bycatch, protect their role in the ecosystem, and “other.”

The proposed rule is not responsive to the SSC’s ANPR request for clarification regarding the need to protect species even if they are not “in” an FMP and the Council’s ability to do so without adding them to the species that are “in” the FMP.

While most of the existing provisions of the NS7 guidelines at 600.340(b) were moved to proposed 600.305(c), two concepts of the NS7 guidelines were deleted, 600.340(b)(1) and 600.340(b)(2)(vii):

- 600.340(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....
- 600.340(b)(2)(vii) The costs associated with an FMP, balanced against the benefits...

The preamble to the proposed rule does not explain why these concepts were deleted. Unless the goal is to require specification of status determination criteria, EFH, and all MSA 303(a) required provisions for all species, the Council would benefit from having guidance that allows a balance of costs and benefits and consideration of whether management serves some useful purpose. This is particularly important with the addition of proposed 600.305(c)(1)(i) and (ii), which basically encompass everything caught in every fishery.

Overall, the proposed rule misplaces the emphasis on “stocks” requiring conservation and management, whereas the Act is explicit that a “fishery” is to be the subject of conservation and management. The following text describes an alternative approach to this issue that is simple, sensible, fully protective of both target and non-target stocks, and explicitly consistent with the language of the Act (note that this is intended as a description of an overall approach rather than as substitute text for a particular section of the proposed rule; adoption of this approach would probably require an extensive rewrite of several parts of the proposed rule):

“A management plan must be developed for a fishery if, absent Federal management, the fishery is not expected to be prosecuted in a manner that results in achievement of optimum yield, prevention of overfishing of the target stocks, and protection of the marine ecosystem (or results that are reasonably equivalent to these). All stocks targeted by the fishery must be identified in the FMP, with the understanding that references to ‘stocks’ in MSA 303(a) apply to those stocks only. References to ‘fishery’ in MSA 303(a) may be interpreted as applying to individual stocks or groups of stocks within the set of target stocks, or to any fishing for such stocks, to the extent that the context allows. In addition to containing all items required by MSA 303(a), the FMP must contain conservation and management measures sufficient to protect the marine ecosystem from the effects of the managed fishery. The ‘marine ecosystem’ is understood to consist of all non-target species impacted directly or indirectly by the fishery as well as all physical features of the marine environment impacted directly or indirectly by the fishery. While protection of the marine ecosystem is mandatory, Councils have flexibility in determining how to

accomplish this goal. For example, in providing protection to non-target species, reference points based on MSY may or may not be relevant or necessary. Listing a particular non-target species in the FMP is not a prerequisite for providing protection to that species; neither does failing to list non-target species exempt a Council from its obligation to protect them. Moreover, listing a non-target species in the FMP does not thereby create a requirement to include all MSA 303(a) items for that stock.”

*Suggested Improvements:*

600.305(c)(1) - Either strike the list of ten factors; or, if the list in paragraph (1) is to be retained, item (vii) of the existing list in paragraph 600.340(b)(2), which recognizes the need to consider the costs of including a stock in an FMP, should be added (it is deleted in the proposed rule). Also, consider moving (iv) to the top of the list because this should be the primary factor in determining whether a stock requires conservation and management. This new section could result in FMP amendments to add new stocks to FMPs and establish status determination criteria, and all other 303(a) required provisions, for stocks that meet these new broad criteria.

600.305(c)(2) - This paragraph should be revised to include the possibility of removing a stock from an FMP, to read “(2) When considering whether a stock should be added to or removed from an FMP...” This would make (c)(2) consistent with (c)(5).

600.340(b) - Retain provisions 600.340(b)(1) and 600.340(b)(2)(vii) in NS7 in order to preserve guidance that acknowledges that the decision to include a species in an FMP will involve evaluation of costs and benefits.

Rewrite the proposed rule from the perspective of the alternative approach described above.

## **V. Data Limited Stocks**

**Amended Section(s): 600.310(e)(2)(ii) , 600.310(h)(2)**

### **Comments:**

600.310(e)(2)(ii) - The proposed rule includes new options for proxies that can be used in place of the standard status determination criteria in cases where data are especially sparse or uninformative. The insertions represent improvements, as they acknowledge the reality that certain currently required reference points simply cannot be estimated in data-poor situations, and they identify achievable alternatives. Although these changes are not directly responsive to the SSC and Council comments on the ANPR, other language in the proposed rule does suggest that not all stocks require conservation and management.

## **VI. Stock Complexes and Indicator Stocks**

**Amended Section(s): 600.310(d)(2), 600.310(e)(1)(iii)**

### **Comments:**

600.310(d)(2)(i) - The current definition of “stock complex” is, “a group of stocks that are sufficiently similar in geographic distribution, life history, and vulnerabilities to the fishery such that the impact of management actions on the stocks is similar.” The proposed rule retains this definition (with some non-substantive modifications), but prefaces it with the phrase, “Where practicable.” While providing somewhat greater flexibility, the addition still implies that the current definition should normally apply, which seems a bit contrary to the argument used to modify the current definition in the first place (viz., that the methods used to identify stock complexes in practice often differ from the current definition; see preamble to the proposed rule).

600.310(e)(1)(iii) - The existing suggestion that MSY for a stock complex “should” be estimated on a stock-by-stock basis is proposed to be replaced by a suggestion that it be estimated for one or more indicator stocks or the complex as a whole. This is an improvement, given that non-indicator stocks are often data-poor, making estimation of MSY difficult if not impossible.

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

**Amended Section(s): 600.310(e)(1), 600.310(e)(3)**

### **Comments:**

600.310(e)(1) - The proposed rule retains the requirement that each FMP include an estimate of MSY for the stocks and stock complexes that require conservation and management, and adds that MSY “may also” be specified for the fishery as a whole. “Also” implies that specification of MSY at the fishery level is in addition to, rather than a substitute for, specification at the stock/complex level. This goes beyond the requirement of the Act, which states simply that MSY must be assessed and specified for the fishery.

### *Suggested Improvement:*

Replace “MSY may also be specified for” with “MSY may alternatively be specified for” at 600.310(e)(1).

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

**Amended Section(s): 600.310(e)(2)(i), 600.310(e)(2)(ii)**

### **Comments:**

600.310(e)(2)(i)(F) - The proposed rule allows for a distinction between “Depleted” and “Overfished” stocks that have fallen below the MSST. Attempting to clearly distinguish environmental impacts from fishery-induced impacts is a complex undertaking. Unless there is a clear reason why the actions of the Council would differ under these two definitions, it is not clear why additional nomenclature is needed. Previous comments by various SSCs and Councils have suggested the **replacement** of “overfished” with “depleted”, not the addition of “depleted”, because “overfished” gets used for stocks for which no overfishing ever took place. Given the difficulty of separating environmental effects from fishing effects on the status of the stock, the proposed rule’s attempt to tie the term “depleted” to stocks that meet stringent conditions that tie the low stock condition to environmental effects effectively creates the addition of the new term “depleted” that has no role in the process of setting ABCs and overfishing levels (OFLs) and of any fisheries management measures.

The definition of “depleted” in the proposed rule is: “An overfished stock or stock complex is considered depleted when it has not experienced overfishing at any point over a period of two generation times of the stock and its biomass has declined below MSST [minimum stock size threshold]. . . .” NMFS is attempting to address the ongoing concern that “the term ‘overfished’ implies that fishing is the sole cause for a decline in stock biomass, when other factors such as environmental conditions may be the leading cause for the stocks biomass decline. . . .” However, the proposed revision does not accomplish the purpose, because it says that only an overfished stock or stock complex can be considered depleted under the proposed rule. It would be better to add an option for a stock that has declined below MSST for reasons other than overfishing. It does not make sense to say that a stock is overfished when it has never been subjected to overfishing.

600.310(e)(2)(ii) - The proposed rule changes the definition of MSST by eliminating the requirement for rebuilding to BMSY within 10 years and instead adding this to a list of several new factors that “could” be considered when specifying MSST: life history of the stock, long-term natural fluctuations expected when fishing at maximum fishing mortality threshold (MFMT), socio-economic impacts associated with rebuilding to BMSY, international agreements, and “other” factors. While these changes would not necessitate revising the MSST specifications currently contained in the NPFMC’s FMPs, they would provide additional flexibility should the Council wish to revisit those specifications.

*Suggested Improvement:*

Change the new “depleted” sub-category of the “overfished” category to its own stand-alone category.

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

### **Amended Section(s): 600.310(e)(2)(ii)(A)**

#### **Comments:**

Editorial improvements are suggested in the redline document.

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

#### **Comments:**

600.310(e)(3) - The proposed rule says that OY may be specified at the stock, stock complex, or fishery level. The phrase “FMP level” should be added to this list, since many FMPs cover multiple fisheries. A similar change should also be made in other sections (e.g., MSY) where appropriate.

600.310(e)(3)(iii)(B) - The potential factors listed in (B)(1)-(B)(3) are too loosely defined to provide an operational guidance on what factors to consider. Item (B) is list of factors to consider when determining (A), hence is more appropriately nested under (A).

600.310(e)(3)(iv)(A) - The proposed rule strikes the existing sentence, “All catch must be counted against OY, including that resulting from bycatch, scientific research, and all fishing activities,” but this is inconsistent with the proposed rule’s new language requiring that all these sources of mortality be taken into account when making status determinations, (600.310(e)(2)(ii)(C)). It should also be noted that the issue of how to account for all sources of anthropogenic mortality, which was highlighted in the ANPR, is not addressed in the proposed rule.

Because the overall issue remains unresolved, the specific sub-issues identified in the SSC's associated ANPR comment are shown below:

“The guidelines state that all sources of fishing mortality must be accounted for. However, a number of points remain ambiguous, particularly with respect to removals from sources other than the directed fishery (hereinafter referred to as ‘other’ catches). Specifically, the guidelines should clarify each of the following points:

- When considering use of ‘other’ catches in assessment and management, it will be necessary to distinguish between:
  1. listing those catches but not using them for determination of catch limits,
  2. using those catches to estimate reference fishing mortality rates (F35%, etc.),
  3. using those catches to estimate reference harvest amounts (maxABC, OFL, etc.) given the reference fishing mortality rates, and
  4. including those catches in the total against which harvest specifications are compared.
- It will also be necessary to determine whether the use of ‘other’ catches should differ depending on the source of the removals (e.g., should research catches be treated differently from catches taken in non-directed commercial fisheries?).
- In the event that ‘other’ catches will be used to estimate either reference fishing mortality rates or reference harvest amounts, methods will need to be devised for doing so (e.g., does the calculation of F35%, etc., assume that ‘other’ catches are zero, that they are equal to the long-term average, or something else?).
- What to do about years for which ‘other’ catches were known to have occurred, but for which no direct estimate of magnitude is available (e.g., years in which surveys occurred but from which data no longer exist).
- What to do about sources for which ‘other’ catches were known to have occurred, but for which no direct estimate of magnitude is available (e.g., catches taken in recreational fisheries).
- Can Councils preempt scientific research by allocating the entire ACL to the commercial fishery?”

The proposed rule does not respond to the SSC's request for additional guidance on accounting for social and ecological effects. However, the existing text does include two fairly lengthy paragraphs on the types of social and ecological factors that might be appropriate to consider in the OY specification.

600.310(e)(iii) - The first sentence of the existing text reads as follows: “An FMP must contain an assessment and specification of OY, including a summary of information utilized in making such specification, consistent with requirements of section 303(a)(3) of the Magnuson-Stevens Act.” The proposed rule would add a requirement that each FMP “documents how the OY will produce the greatest benefits to the nation and prevent overfishing.” This change would require amendments to most, if not all, of the NPFMC's FMPs because they do not document how the OY will produce the greatest benefits to the Nation and prevent overfishing. Documenting how the OY will prevent overfishing seems contrary to NS1, which says, “conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery...” and inconsistent with the proposed guidelines at 600.310(f)(4)(iv) on the relationship between OY and the ACL framework.

The proposed rule is sufficiently vague in use of the phrase, “documents how the OY will produce the greatest benefits to the Nation and prevent overfishing,” that there are a number of possible problematic implications of this new requirement. The new language (unless loosely interpreted to be equivalent to the existing text) requires changes to the FMPs that could be both significant and operationally infeasible. We elaborate on these concerns below.

The MSA defines OY, in part, as the yield that “will provide the greatest overall benefit to the Nation” (section 3(33)), which sets a very high bar. The main problem with the new requirement in the proposed rule is not its use of the statutory definition, but rather its mandate for documenting how the statutory definition has been satisfied in each FMP together with its lack of any guidance on how this can be accomplished in practice. Any specification of OY in practice will necessarily be an estimate, and use of proxy values will often be required, just as in specification of MSY. NMFS should commit to providing technical guidance as to the types and use of allowable proxies for specification of OY. Without such guidance, the proposed text could be interpreted as broadening the positive (practical) determination of OY to include factors which we currently have no practical means of defensibly estimating; thereby creating a burden that is untenable.

Requiring that FMPs must “document,” as opposed to “summarize” (as prescribed in MSA), creates a regulatory burden that may not be appropriate for all FMPs. If the methods used to assess and specify OY are sufficiently simple in a given instance, it is conceivable that such documentation might reasonably fit within the FMP. However, it is easily conceivable that the methods used to assess and specify OY might be highly technical and span a great many pages, in which case it would be awkward to include full documentation within the FMP itself. Therefore, the language in the proposed rule should be amended to allow documentation either in the FMP itself or in other documents such as environmental assessments or regulatory impact reviews.

The MSA requires each FMP to “assess and specify” OY (section 303(a)(3)). Given this, it seems reasonable to assume that some sort of documentation would exist describing how the specified OY will provide the greatest benefit to the Nation. It is critical that we continue to make progress in accounting for previously unaccounted economic values in the specification of OY, but doing so without a clear, defensible methodology for many of the factors may put the cart before the horse and potentially undermine this objective. The proposed text goes beyond what should be its intent, namely, achieving more comprehensive documentation so that we might determine whether an alternative specification would produce greater “benefits to the Nation.”

*Suggested Improvement:*

The final rule should retain the existing text in 600.310(e)(iii) and NMFS should provide a technical guidance document describing in precise and pragmatic terms whether and how any existing OY specifications should be amended so as to satisfy the statutory definition.

In section 600.310(e)(3) the proposed rule should say that OY may be specified at the stock, stock complex, fishery level or FMP level.

In section 600.310(e)(3)(iii)(B) - Item (B) should be nested under (A). The potential factors listed in (B)(1)-(B)(3) should be concretely defined.

In section 600.310(e)(3)(iv)(A) retain the existing language, “All catch must be counted against OY, including that resulting from bycatch, scientific research, and all fishing activities,” and amend to account for all sources of anthropogenic mortality, as described in the SSC’s comments on the ANPR detailed above.

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

### **Amended Section(s): 600.310(f)**

#### **Comments:**

600.310(f)(1) - The proposed rule adds two new sub-paragraphs (v and vi) defining management uncertainty and scientific uncertainty. These additions are responsive to the first of the SSC's two comments on the corresponding issue in the ANPR.

600.310(f)(2)(i) - The proposed rule removes the requirement that ABC control rules be based on the P\* approach and explicitly allows for use of "other appropriate methods." The preamble to the proposed rule goes so far as to mention decision theory as an acceptable alternative to the P\* approach, and even cites a discussion paper on the subject that was prepared for the NPFMC SSC. This change is completely responsive to the SSC's comments on the ANPR, and constitutes total victory in a struggle that has spanned the last 8 years.

600.310(f)(2)(ii)(A) - The proposed rule allows a phase-in period for adoption of status determination criteria. The use of this option should be accompanied with an evaluation of the implications of this phase-in on stock status. If scientific information indicates that the stock has become much larger, a phase-in of 3 years may be prudent if there is much uncertainty in the information or if the stock is not assessed very often. NPFMC has used a 10-year staircase in one case, so rather than specifying a limit of 3 years, it would be better to examine the rationale in the evaluation. If scientific information indicates that a stock has unexpectedly decreased for whatever reason, a phase-in may be unwise. The burden of proof should be put on the evaluation to justify the phase-in in this case.

600.310(f)(2)(ii)(B) - The proposed rule allows for carry-over of total allowable catch (TAC) or catch to the next year if it does not result in catch exceeding ABC. The proposed rule should mention the problem with doing this carry-over when stocks are assessed annually. The problem is that the carry-over is based on the previous assessment, but the current year may have updated values of ABC and OFL. The current assessment automatically adjusts for any changes to stock condition resulting from the previous catch being lower than the previous TAC. Thus, no carry-over should be allowed when new information is available that indicates a change in stock condition.

600.310(f)(4)(i) - See comment under Topic XII below.

600.310(f)(4)(iv) - Clarification is needed in terms of conflicting characterizations of ABC in the second and sixth sentences of this paragraph. The second sentence implies that the only purpose of ABC is to prevent overfishing, while the sixth lists several other considerations that may go into determining the risk policy for an ABC control rule. The latter is more appropriate. If the only purpose of ABC is to prevent overfishing, this could be accomplished most simply by setting ABC equal to zero.

#### *Suggested Improvement:*

In the second sentence of 600.310(f)(4)(iv), replace "and is designed to prevent overfishing" with "that prevents overfishing within an established framework of risk and other considerations."

## **XII. Accountability Measures**

### **Amended Section(s): 600.310(f), 600.310(g)**

## **Comments:**

600.310(f)(4)(i) and 600.310(g)(4) - Paragraph 600.310(f)(4)(i) of the proposed rule adds new language suggesting that “management uncertainty should be accounted for in the ACL” whenever the (optional) concept of annual catch target (ACT) is not used. This is a significant change that may warrant revisiting the ABC control rules currently specified in the Crab and BSAI and GOA Groundfish FMPs or, alternatively, formally adopting use of ACT terminology in the NPFMC’s FMPs. When the NPFMC’s FMPs were amended to bring them into compliance with the Magnuson-Stevens Reauthorization Act of 2006, TACs were not equated with ACTs, in part because the current guidelines require use of an ACT control rule whenever the concept of ACT is used, and this would be inconsistent with the Council’s current procedure for setting groundfish TACs. However, paragraph 600.310(g)(4) of the proposed rule relaxes the requirement for use of an ACT control rule, stating instead that such control rules “can” be used.

### *Suggested Improvement:*

Given that the NPFMC’s groundfish FMPs use TAC as a functional equivalent of ACT, it would be helpful if the proposed rule used the phrase “ACT, or functional equivalent,” in places such as the second sentence of 600.310(f)(4)(i): “If an annual catch target (ACT), *or functional equivalent*, is not used, management uncertainty should be accounted for in the ACL.”

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

### **Amended Section(s): 600.310(h)**

## **Comments:**

The proposed rule’s addition of data-limited cases to the set of circumstances under which “alternative approaches” is helpful, and simply acknowledges the reality that some things cannot be estimated without data.

Regarding the Council’s comment on the corresponding issue in the ANPR, the proposed rule does not provide a more straightforward exemption for salmon, although the exemption in the current guidelines is already explicit.

### *Suggested Improvement:*

At 600.310(h)(2) the proposed rule mischaracterizes the spawning potential of Pacific salmon (“the spawning potential is concentrated in one year”). This could be fixed by inserting the phrase “of each run” after “potential,” or by retaining the current language (“the spawning potential for a stock is spread over a multi-year period”).

600.310(h)(2) “Flexibility in application of NS1 guidelines” is nested under (h) “Establishing ACL mechanisms and AMs in FMPs.” It would be more appropriately elevated to full paragraph status as 600.310(i), which would require renumbering subsequent paragraphs, or added as new paragraph 600.310(n). This change would make it clear that the Councils have flexibility under the complete set of NS1 guidelines, not just flexibility under (h).

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

### **Amended Section(s): 600.310(j)**

## Comments:

600.310(j)(3)(i)(A) - The proposed rule identifies the starting date for calculating the minimum time for rebuilding ( $T_{min}$ ) as the first year that the rebuilding plan is expected to be implemented, which is a helpful clarification.

600.310(j)(3)(i)(B) - The proposed rule retains the existing discontinuity in the formula for the maximum rebuilding time ( $T_{max}$ ), wherein  $T_{max}$  can be no greater than 10 years if  $T_{min}$  is slightly below or equal to 10 years, but  $T_{max}$  can be substantially greater than 10 years if  $T_{min}$  is even slightly above 10 years. Although the discontinuity is difficult to rationalize, it is also difficult to see how the Act can be interpreted otherwise. For stocks with  $T_{min}$  greater than 10 years, the proposed rule adds two new alternative methods for calculating  $T_{max}$ , which provides helpful flexibility, particularly in cases where estimates of generation time are unavailable or unreliable. But it would be helpful for guidance on which of the three approaches should be chosen if more than one can be calculated. Is it permissible to choose the longest of the three for management flexibility?

600.310(j)(3)(iv) and 600.310(j)(3)(v) - Paragraph 600.310(j)(3)(iv) of the proposed rule provides significant new text on determination of “adequate progress” under a rebuilding plan, which is an issue that the current guidelines do not address; thus the proposed rule is responsive to the SSC’s first ANPR comment on this issue. However, the new text does not address data-poor cases separately from the general case, so is not responsive to the SSC’s second ANPR comment.

The proposed rule emphasizes keeping catch below the level associated with the specified fishing mortality rate under the rebuilding plan (“Frebuild”). This is helpful in that it places the focus on something that managers can actually control, but it may also de-emphasize the progress of the stock biomass toward BMSY (which managers can at best control indirectly, and sometimes not at all), thereby resulting in insufficient scrutiny of the Frebuild estimates. For example, paragraph 600.310(j)(3)(v) states that revision of Frebuild is not necessary unless adequate progress is not being made, which implies that, if Frebuild is initially overestimated and catches stay below the level associated with the (overestimated) Frebuild, there may be no incentive to revisit Frebuild even if biomass makes no progress toward BMSY. A possible remedy might be found in the proposed rule’s option wherein progress “may also” be found to be inadequate if “rebuilding expectations of a stock or stock complex are significantly changed due to new and unexpected information about the status of the stock.” For example, if the unexpected information consists of a finding that biomass is not increasing as rapidly as expected under Frebuild, this clause could allow for a determination of inadequate progress, thereby necessitating a re-evaluation of Frebuild. However, it is not clear that such an interpretation is consistent with NMFS’ understanding that “the primary objective of a rebuilding plan should be to maintain fishing mortality at or below Frebuild.”

### *Suggested Improvement:*

The proposed rule includes the following text at 600.310(j)(3)(iv): “The Secretary may find that adequate progress is not being made if Frebuild or the ACL associated with Frebuild are exceeded, and AMs are not correcting the operational issue that caused the overage and addressing any biological consequences to the stock or stock complex resulting from the overage when it is known (see paragraph (g)(3) of this section). A lack of adequate progress may also be found when the rebuilding expectations of a stock or stock complex are significantly changed due to new and unexpected information about the status of the stock.” These sentences should be modified by changing “may” to “will” in the first sentence, and replacing the second sentence with the following: “Each rebuilding plan should identify a reasonable level of statistical significance that will be used to evaluate progress of the stock toward BMSY. The Secretary will also find that adequate progress is not being made if the status of the stock relative to BMSY is significantly different from that projected in the rebuilding plan.”

Consider revising 600.310(j)(3)(vi) to read:“(vi) If a stock or stock complex has not rebuilt by Tmax or the Secretary finds that adequate progress is not being made, then the fishing mortality rate should be maintained at Frebuild or 75 percent of the MFMT, whichever is less, until the stock or stock complex is rebuilt.”

## **XV. Recreational Fisheries**

**Amended Section(s): 600.305(b)(2), 600.310(g)(3), 600.310(e)(2)(ii), 600.310(h)(2)**

### **Comments:**

Comments provided above on Sections III, V, XII. No comments are offered specific to recreational fisheries

### **National Standard 3**

**Amended Section(s): 600.320**

600.320(e) - The proposed rule leaves this paragraph, which deals with analysis of management units, largely as it appears in the current guidelines. Although the NPFMC’s FMPs do not address the items enumerated in this paragraph, most of them are addressed in the analytical documents that support the FMP (EAs, RIRs, etc.). It is not clear why this analysis would belong in an FMP, and it could create excessively long FMPs.

#### *Suggested Improvement:*

Consider changing the beginning of the first paragraph from “An FMP should include discussion of the following:” to “The supporting analyses for FMPs should demonstrate:” This change would make the analysis paragraph for NS3 consistent with the analysis paragraph for NS7 (proposed 600.340(c)).

### **National Standard 7**

See comments under IV above.



## Proposed Changes to the National Standard Guidelines

On January 20, 2015, NOAA Fisheries published a proposed rule to revise the general section of the National Standard guidelines, and the guidelines for National Standard 1, 3, and 7 (80 FR 2786). This document was prepared to show the proposed changes in a track-change format so that the public can more easily see the proposed changes to the guidelines. Any discrepancies between this document and the proposed rule will be resolved in favor of the *Federal Register*.

### Key

Black text = current language

Red text = proposed new language

Red ~~text~~ = current language that NOAA Fisheries is proposing to remove from the guidelines.

Green ~~text~~ and Green text = current language that NOAA Fisheries is proposing to move from one paragraph to another paragraph in the guidelines.

### § 600.305 General.

#### (a) *Purpose*.

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

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

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

#### (b) *Fishery management objectives*.

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

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

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

context within which the Secretary will judge the consistency of an FMP's conservation and management measures with the national standards.

(c) Stocks that require conservation and management.

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

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

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

(3) Councils may choose to identify stocks within their FMPs as ecosystem component (EC) species (see 50 CFR 600.310(d)(1)) if they do not require conservation and management. EC species may be identified at the species or stock level, and may be grouped into complexes. Consistent with National Standard 9, MSA section 303(b)(12), and other applicable MSA sections, management measures can be adopted in order to, for example, collect data on the EC species, minimize bycatch or bycatch mortality of EC species, protect the associated role of EC species in the ecosystem, or for other reasons.

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

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

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

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

- (2) *Shall* is used only when quoting statutory language directly, to avoid confusion with the future tense.
- (3) *Should* is used to indicate that an action or consideration is strongly recommended to fulfill the Secretary's interpretation of the Magnuson-Stevens Act, and is a factor reviewers will look for in evaluating a SOPP or FMP.
- (4) *May* is used in a permissive sense.
- ~~(5) *May not* is proscriptive; it has the same force as “must not.”~~
- ~~(6) (5) *Will* is used descriptively, as distinguished from denoting an obligation to act or the future tense.~~
- ~~(7) (6) *Could* is used when giving examples, in a hypothetical, permissive sense.~~
- ~~(8) (7) *Can* is used to mean “is able to,” as distinguished from “may.”~~
- ~~(9) (8) *Examples* are given by way of illustration and further explanation. They are not inclusive lists; they do not limit options.~~
- ~~(10) (9) *Analysis*, as a paragraph heading, signals more detailed guidance as to the type of discussion and examination an FMP should contain to demonstrate compliance with the standard in question.~~
- ~~(11) (10) *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.”~~
- (11) *Target stocks are stocks or stock complexes that fishers seek to catch for sale or personal use, including “economic discards” as defined under Magnuson-Stevens Act section 3(9).*

§ 600.310 National Standard 1—Optimum Yield.

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

(b) *General.*

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

- (i) Specifying maximum sustainable yield (MSY) and OY;
- (ii) Specifying status determination criteria (SDC) so that overfishing and overfished determinations can be made for stocks and stock complexes that ~~are part of a fishery~~ require, or are in need of, conservation and management;
- (iii) Preventing overfishing and achieving OY, incorporation of scientific and management uncertainty in control rules, and adaptive management using annual catch limits (ACL) and measures to ensure accountability (~~AM~~); 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 ~~does not~~ must not jeopardize the capacity of a stock or stock complex to produce MSY; the abundance of an overfished stock or stock complex must be rebuilt to a level that is capable of producing MSY; and OY must not exceed MSY.

(ii) *OY.* The determination of OY is a decisional mechanism for resolving the Magnuson-Stevens Act's conservation and management objectives, achieving a fishery management plan's (FMP) objectives, and balancing the various interests that comprise the greatest overall benefits to the Nation. OY is based on MSY as reduced under paragraphs (e)(3)(iii)(~~A~~) and (~~iv~~~~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 ~~which is prepared by any Council~~ 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)). Subject to certain exceptions and circumstances described in paragraph (h) of this section, this requirement takes effect in fishing year 2010, for fisheries determined subject to overfishing, and in fishing year 2011, for all other fisheries (Magnuson-Stevens Act section 303 note). "Council" includes the Regional Fishery Management Councils and the Secretary of Commerce, as appropriate (see § 600.305(e)(11)).

(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)-(D) of this section). See the National Standard 2 guidelines for further guidance on SSCs and the peer review process (§ 600.315).

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

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

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

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

(3) *Approach for setting limits and accountability measures, including targets, for consistency with NSI.* ~~In general, when~~ When specifying limits and accountability measures ~~intended to avoid overfishing and achieve sustainable fisheries,~~ Councils must take an approach that considers uncertainty in scientific information and management control of the fishery. These guidelines describe how ~~to~~ the Councils could address uncertainty such that there is a low risk that limits are exceeded as described in paragraphs (f)(~~42~~) and (~~6g~~)(4) of this section.

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

(c) *Summary of items to include in FMPs related to NSI.* 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 NSI guidelines. ~~As described in further detail in paragraph (d) of this section, Councils may review their FMPs to decide if all stocks are “in the fishery” or whether some fit the category of “ecosystem component species.”~~ Councils must ~~also~~ describe fisheries data for the stocks, and stock complexes, ~~and ecosystem component species~~ in their FMPs, or associated public documents such as Stock Assessment and Fishery Evaluation (SAFE) Reports. For all stocks and stock complexes that ~~are “in the fishery” (see paragraph (d)(2) of this section),~~ 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)(~~42~~) of this section).
- (4) Mechanisms for specifying ACLs ~~and possible sector-specific ACLs in relationship to the ABC~~ (see paragraphs (f)(~~5~~) and (~~h~~)(4) of this section).
- (5) AMs (see paragraphs (g) ~~and (h)(1)~~ of this section).
- (6) Stocks and stock complexes that have statutory exceptions from ACLs and AMs (see paragraph (h)(~~21~~) of this section) or which fall under limited circumstances which require different approaches to meet the ACL Magnuson-Stevens Act requirements (see paragraph (h)(~~32~~) of this section).

(d) ~~Classifying stocks in an FMP. Stocks and stock complexes—~~

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

(1) Introduction. Magnuson-Stevens Act section 303(a)(2) requires that an FMP contain, among other things, a description of the species of fish involved in the fishery. The relevant Council determines which specific target stocks and/or non-target stocks to include in a fishery. This section provides that a Council may, but is not required to, use an “ecosystem component (EC)” species classification. As a default, all stocks in an FMP are considered to be “in the fishery,” unless they are identified as EC species (see § 600.310(d)(5)) through an FMP amendment process.

(2) Stocks in a fishery. Stocks in a fishery may be grouped into stock complexes, as appropriate. Requirements for reference points and management measures for these stocks are described throughout these guidelines.

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

(4) “Non-target species” and “non-target stocks” are fish caught incidentally during the pursuit of target stocks in a fishery, including “regulatory discards” as defined under Magnuson-Stevens Act section 3(38). They may or may not be retained for sale or personal use. Non-target species may be included in a fishery and, if so, they should be identified at the stock level. Some non-target species may be identified in an FMP as ecosystem component (EC) species or stocks.

~~(5) Ecosystem component (EC) species—~~

- ~~(i) To be considered for possible classification as an EC species, the species should:~~
- ~~(A) Be a non-target species or non-target stock;~~
  - ~~(B) Not be determined to be subject to overfishing, approaching overfished, or overfished;~~
  - ~~(C) Not be likely to become subject to overfishing or overfished, according to the best available information, in the absence of conservation and management measures; and~~
  - ~~(D) Not generally be retained for sale or personal use.~~

~~(ii) Occasional retention of the species would not, in and of itself, preclude consideration of the species under the EC classification. In addition to the general factors noted in paragraphs (d)(5)(i)(A)–(D) of this section, it is important to consider whether use of the EC species classification in a given instance is consistent with MSA conservation and management requirements.~~

~~(iii) EC species may be identified at the species or stock level, and may be grouped into complexes. EC species may, but are not required to, be included in an FMP or FMP amendment for any of the following reasons: For data collection purposes; for ecosystem considerations related to specification of OY for the associated fishery; as considerations in the development of conservation and management measures for the associated fishery; and/or to address other ecosystem issues. While EC species are not considered to be “in the fishery,” a Council should consider measures for the fishery to minimize bycatch and bycatch mortality of EC species consistent with National Standard 9, and to protect their associated role in the ecosystem. EC species do not require specification of reference points but should be monitored to the extent that any new pertinent scientific information becomes available (e.g., catch trends, vulnerability, etc.) to determine changes in their status or their vulnerability to the fishery. If necessary, they should be reclassified as “in the fishery.”~~

~~(6) Reclassification. A Council should monitor the catch resulting from a fishery on a regular basis to determine if the stocks and species are appropriately classified in the FMP. If the criteria previously used to classify a stock or species is no longer valid, the Council should reclassify it through an FMP amendment, which documents rationale for the decision.~~

~~(7) Stocks or species identified in more than one FMP. If a stock is identified in more than one fishery, Councils should choose which FMP will be the primary FMP in which management objectives, SDC, the stock's overall ACL and other reference points for the stock are established. Conservation and management measures in other FMPs in which the stock is identified as part of a fishery should be consistent with the primary FMP's management objectives for the stock.~~

~~(8) Stock complex. “Stock complex” means a group of stocks that are sufficiently similar in geographic distribution, life history, and vulnerabilities to the fishery such that the impact of management actions on the stocks is similar.~~

~~(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, to the extent possible. Stocks may be grouped into complexes for various reasons, including where stocks in a multispecies fishery cannot be targeted independent of one another and MSY cannot be defined on a stock-by-stock basis (see paragraph (e)(1)(iii) of this section); where there is insufficient data to measure their 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 to the fishery should be evaluated/considered when determining if a particular stock complex should be established or reorganized, or if a particular stock should be included in a complex. Stock complexes may be comprised of: one or more indicator stocks, each of which has SDC and ACLs, and several other stocks; several stocks without an indicator stock, with SDC and an ACL for the complex as a whole; or one of 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).~~

~~(9)-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 ~~status/vulnerability~~ of ~~each stock/stocks~~ within the complex, ~~due to similarity in vulnerability.~~ 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 ~~need to~~ 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. ~~When indicator stock(s) are used, periodic re-evaluation of available quantitative or qualitative information (e.g., catch trends, changes in vulnerability, fish health indices, etc.) is needed to determine whether a stock is subject to overfishing, or is approaching (or in) an overfished condition.~~

(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)(iv) of this section.

~~(10) Vulnerability. A stock's vulnerability 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 to the fishery (e.g., loss of habitat quality). Councils in consultation with their SSCs, should analyze the vulnerability of stocks in stock complexes where possible.~~

(e) Features of MSY, SDC, and OY—

(1) MSY. Each FMP must include an estimate of MSY for the stocks and stock complexes ~~in that require conservation and management. MSY may also be specified for~~ the fishery, as ~~described in paragraph (d)(2) of this section) 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 on a stock-by-stock basis whenever possible. However, where MSY cannot be estimated for each stock in a stock complex, then MSY may be estimated for one or more indicator stocks for the complex or for the complex as a whole (see paragraph (d)(2)(ii)). ~~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)(iv) of this section. When indicator stocks are not used, MSY, or a suitable proxy, should be calculated for the stock complex as a whole.~~

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

~~(iv)-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, ~~based on the best scientific information available~~, that can serve as reasonable proxies for MSY,  $F_{msy}$ , and  $B_{msy}$ , ~~to the extent possible.~~

(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. ~~These ecological conditions~~ Ecological and environmental information should be taken into account, to the extent ~~possible~~ practicable, when assessing stocks and specifying MSY. Ecological conditions 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 ~~possible~~ practicable, through the stock assessment process and peer review (see § ~~600.335~~, 600.335), and should be taken into account when specifying the ABC Control rule (see paragraph (f)(2) of this section). ~~Where uncertainty cannot be directly calculated, such as when proxies are used, then a proxy for the uncertainty itself should be established based on the best scientific information, including comparison to other stocks.~~

## (2) Status determination criteria—

### (i) Definitions.

(A) Status determination criteria (SDC) mean the ~~quantifiable~~ 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 ~~(to overfish)~~ occurs whenever a stock or stock complex is subjected to a level of fishing mortality or ~~annual~~ total catch that jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis.

(C) Maximum fishing mortality threshold (MFMT) means the level of fishing mortality ~~(F), 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. ~~The OFL is an estimate of the catch level above which overfishing is occurring.~~

(E) Overfished. A stock or stock complex is considered “overfished” when its biomass has declined below ~~MSST, a level that jeopardizes the capacity of the stock or stock complex to produce MSY on a continuing basis.~~

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

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

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

(ii) Specification of SDC and overfishing and overfished determinations. Each FMP must describe how objective and measurable SDC 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, and determine annually, if possible, whether. 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. ~~Each FMP must specify, to the extent possible, objective and measurable SDC as follows (see paragraphs (e)(2)(ii)(A) and (B) of this section):~~ of stocks of fish within the fishery. If alternative types of SDCs are used, the Council should explain how the approach will promote sustainability of the stock or stock complex on a long term basis. A Council should consider a process that allows SDCs to be quickly updated to reflect the best scientific information available. In the case of internationally-managed stocks, the Council may decide to use the SDCs defined by the relevant international body. In this instance, the SDCs should allow the Council to monitor the status of a stock or stock complex, recognizing that the SDCs may not be defined in such a way that a Council could monitor the MFMT, OFL, or MSST as would be done with a domestically managed stock or stock complex.

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

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

(2) Catch Exceeds the OFL. ~~Should the annual catch exceed~~ Exceeding the annual OFL for 1 year or more, the stock or stock complex is considered subject to exceeding a multi-year catch reference point constitutes overfishing.

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

in which the multi-year approach should not be used (e.g., because the capacity of the stock to produce MSY over the longer term could be jeopardized).

(B) *SDC to determine overfished status.* The MSST or reasonable proxy must be expressed in terms of spawning biomass or other measure of reproductive potential. ~~To the extent possible, the MSST 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 MFMT specified under paragraph (e)(2)(ii)(A)(1) of this section. Should the estimated size of the stock or stock complex in a given year fall below this threshold, the stock or stock complex is considered overfished. MSST should be between  $\frac{1}{2} B_{msy}$  and  $B_{msy}$ , and could be informed by the life history of the stock, the natural fluctuations in biomass associated with fishing at MFMT over the long-term, the time needed to rebuild to  $B_{msy}$  and associated social and/or economic impacts on the fishery, the requirements of internationally-managed stocks, or other considerations.~~

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

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

(A) If environmental changes cause a stock or stock complex to fall below its MSST without affecting its long-term reproductive potential, fishing mortality must be constrained sufficiently to allow rebuilding within an acceptable time frame (see also ~~see~~ paragraph (j)(3)(iii) 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 in an overfished condition 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) ~~Has sufficient~~ Is based on the best scientific ~~merit~~ 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~~ Is operationally feasible.

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

(B) In NS1, use of the phrase “achieving, on a continuing basis, the optimum yield from each fishery” means: producing, from each stock, stock complex, or fishery ~~—a long-term~~

~~series, an amount of catches such catch that theis, on average catch is, equal to the Council's specified OY; prevents overfishing-is prevented; maintains the long term average biomass is near or above Bmsy; and rebuilds overfished stocks and stock complexes-are rebuilt 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. ~~The Secretary has an obligation to implement and enforce the FMP.~~ If management measures prove unenforceable—or too restrictive, or not rigorous enough to prevent overfishing while achieving on a continuing basis OY—they should be modified; an alternative is to reexamine the adequacy of the OY specification to ensure that the dual requirements of NSI are met (preventing overfishing while achieving, on a continuing basis, OY). ~~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 NSI, because OY was not achieved on a continuing basis.~~

(iii) *Assessing OY.* An FMP must contain an assessment and specification of OY, including which documents how the OY will produce the greatest benefits to the nation and prevent overfishing. The assessment should include a summary of information utilized in making such specification, consistent with requirements of section 303(a)(3) of the Magnuson-Stevens Act. ~~A Council must identify those and consideration of the~~ economic, social, and ecological factors relevant to management of a particular stock, stock complex, or fishery, ~~and then evaluate them to determine the.~~ Consistent with Magnuson-Stevens Act section 302(h)(5), the assessment and specification of OY. ~~The choice of a particular OY must should be carefully documented to show~~ reviewed on a continuing basis, so that the OY selected will produce it is responsive to changing circumstances in the greatest benefit to the Nation and prevent overfishing fishery.

~~(iii)-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:

~~(A)-1)~~ 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.

~~(B)-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.

~~(C)-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.

~~(iv)-B) Economic, Ecological, and Social Factors. Factors to consider in OY specification.~~ 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.

~~Because fisheries have limited capacities, any attempt to maximize the measures of benefits described in paragraph (e)(3)(iii) of this section will inevitably encounter practical constraints. OY cannot exceed MSY in any circumstance, and must take into~~

~~account the need to prevent overfishing and rebuild overfished stocks and stock complexes. OY is prescribed on the basis of MSY as reduced by social, economic, and ecological factors. To the extent possible, the relevant social, economic, and ecological factors used to establish OY for a stock, stock complex, or fishery should be quantified and reviewed in historical, short-term, and long-term contexts. Even where quantification of social, economic, and ecological factors is not possible, the FMP still must address them in its OY specification. The following is a non-exhaustive list of potential considerations for each factor. An FMP must address each factor but not necessarily each example. social, economic, and ecological factors.~~

~~(A-1) Social factors.~~ Examples are enjoyment gained from recreational fishing, avoidance of gear conflicts and resulting disputes, preservation of a way of life for fishermen and their families, and dependence of local communities on a fishery (e.g., involvement in fisheries and ability to adapt to change). Consideration may be given to fishery-related indicators (e.g., number of fishery permits, number of commercial fishing vessels, number of party and charter trips, landings, ex-vessel revenues etc.) and non-fishery related indicators (e.g., unemployment rates, percent of population below the poverty level, population density, etc.), and preference for a particular type of fishery (e.g., size of the fishing fleet, type of vessels in the fleet, permissible gear types). Other factors that may be considered include the effects that past harvest levels have had on fishing communities, the cultural place of subsistence fishing, obligations under Indian treaties, proportions of affected minority and low-income groups, and worldwide nutritional needs.

~~(B-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.

~~(C-3) Ecological factors.~~ Examples include impacts on ecosystem component species, forage fish stocks, other fisheries, predator-prey or competitive interactions, marine mammals, threatened or endangered species, and birds. Species interactions that have not been explicitly taken into account when calculating MSY should be considered as relevant factors for setting OY below MSY. In addition, consideration should be given to managing forage stocks for higher biomass than Bmsy 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.

~~(v) Specification of OY. (iv) Specifying OY. The specification of OY must be consistent with paragraphs (e)(3)(i) (iv) of this section.~~ 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. ~~If management measures cannot adequately control fishing mortality so that the specified OY can be achieved without overfishing, the Council should reevaluate the management measures and specification of OY so that the dual requirements of NS1 (preventing overfishing while achieving, on a continuing basis, OY) are met.~~

(A) The ~~amount of fish that constitutes the OY should~~can be expressed in terms of numbers or weight of fish-

(B) Either a range or, and either as a single value or a range. When it is not possible to specify OY quantitatively, OY may be specified for OY-described qualitatively.

~~(C) All catch must be counted against OY, including that resulting from bycatch, scientific research, and all fishing activities.~~

~~(D) The OY specification should be translatable into an annual numerical estimate for the purposes of establishing any total allowable level of foreign fishing (TALFF) and analyzing impacts of the management regime.~~

~~(E)-(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.

~~(F)-C~~ An OY established at a fishery level may not exceed the sum of the MSY values for each of the stocks or stock 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.

~~(G) 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.~~

~~(H) Part of the OY may be held as a reserve to allow for factors such as uncertainties in estimates of stock size and 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.~~

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

(vi) *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 factors such as uncertainties in estimates of stock size and 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.

(AC) 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.

~~(B)-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).

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

(f) Acceptable biological catch, and annual catch limits, and annual catch targets. The following features (see paragraphs (f)(1) through (f)(5) of this section) of acceptable biological catch and annual catch limits apply to stocks and stock complexes in the fishery (see paragraph (d)(2) of this section):

~~(1) Introduction. A control rule is a policy for establishing a limit or target fishing level that is based on the best available scientific information and is established by fishery managers in consultation with fisheries scientists. Control rules should be designed so that management actions become more conservative as biomass estimates, or other proxies, for a stock or stock complex decline and as science and management~~

~~uncertainty increases. Examples of scientific uncertainty include uncertainty in the estimates of MFMT and biomass. Management uncertainty may include late catch reporting, misreporting, and underreporting of catches and is affected by a fishery's ability to control actual catch. For example, a fishery that has inseason catch data available and inseason closure authority has better management control and precision than a fishery that does not have these features.~~

~~(1)(2) 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 and any other scientific uncertainty (see paragraph (f)(3) of this section), and should be specified based on the ABC control rule, and the Council's risk policy.~~

~~(iii) ABC control rule means a specified approach to setting the ABC for a stock or stock complex as a function of the scientific uncertainty in the estimate of OFL and any other scientific uncertainty (see paragraph (f)(4) of this section).~~

~~(iii) Annual catch limit (ACL) is a limit on the level of total annual catch of a stock or stock complex, which cannot exceed the ABC, that serves as the basis for invoking AMs. ACL cannot exceed the ABC, but An ACL may be divided into sector-ACLs (see paragraph (f)(54) of this section).~~

~~(v) Annual catch target (ACT) is an amount of annual catch of a stock or stock complex that is the management target of a fishery, and accounts for management uncertainty in controlling the actual catch at or below the ACL. ACTs are recommended in the system of accountability measures so that ACL is not exceeded.~~

~~(vi) ACT control rule means a specified approach to setting the ACT for a stock or stock complex such that the risk of exceeding the ACL due to management uncertainty is at an acceptably low level.~~

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

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

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

~~(2) ABC control rule.—~~

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

~~(ii) The ABC control rule must articulate how ABC will be set compared to the OFL based on the scientific knowledge about the stock or stock complex and taking into account scientific uncertainty (see paragraph (f)(1)(vi) of this section).~~

~~The ABC control rule should consider reducing fishing mortality as stock size declines below  $B_{msy}$  and as scientific uncertainty increases, and may establish a stock abundance level below which directed fishing would not be allowed. When re scientific uncertainty cannot be directly~~

calculated, such as when proxies are used, then a proxy for the uncertainty itself should be established based on the best scientific information, including comparison to other stocks. The control rule may be used in a tiered approach to address different levels of scientific uncertainty. Councils can develop ABC control rules that allow for changes in catch limits to be phased-in over time or to account for the carry-over of some of the unused portion of the ACL from one year to the next; in which case, the Council must provide a comprehensive analysis and articulate within their FMP when the control rule can and cannot be used and how the control rule prevents overfishing.

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

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

(3) *Specification of ABC.* ABC may not exceed OFL (see paragraph (e)(2)(i)(D) of this section). Councils and their SSC should develop a process for receiving by which the SSC can access the best scientific information and advice used to establish ABC. This process should: Identify the body that will apply available regarding implementation of the ABC control rule (i.e., calculates the ABC), and identify the review process that will evaluate the resulting 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 explain why provide an explanation for the deviation. For Secretarial FMPs or ~~FMP~~ 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 they meet stocks fall under the international exception (see paragraph (h)(21)(ii) of this section). While the ABC is allowed to equal OFL, NMFS expects that in most cases ABC will be reduced from OFL to reduce the probability that overfishing might occur in a year. Also, see paragraph (f)(5) of this section for cases where a Council recommends that ACL is equal to ABC, and ABC is equal to OFL.

(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) ABC control rule. For stocks and stock complexes required to have an ABC, each Council must establish an ABC control rule based on scientific advice from its SSC. The determination of ABC should be based, when possible, on the probability that an actual catch equal to the stock's ABC would result in overfishing. This probability that overfishing will occur cannot exceed 50 percent and should be a lower value. The ABC control rule should consider reducing fishing mortality as stock size declines and may establish a stock abundance level below which fishing would not be allowed. The process of establishing an ABC control rule could also involve science advisors or the peer review process established under Magnuson-Stevens Act section 302(g)(1)(E). 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 the scientific uncertainty in the estimate of OFL and any other scientific uncertainty. The ABC control rule should consider uncertainty in factors such as stock assessment results, time lags in updating assessments, the degree of retrospective revision of assessment results, and projections. The control rule may be used in a tiered approach to address different levels of scientific uncertainty.

(45) Setting the annual catch limit—

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

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

(iii) *ACLs for State-Federal Fisheries.* For stocks or stock complexes that have harvest in state or territorial waters, FMPs and FMP amendments should include an ACL for the overall stock that may be further divided. For example, the overall ACL could be divided into a Federal-ACL and state-ACL. However, NMFS recognizes that Federal management is limited to the portion of the fishery under Federal authority (~~see paragraph (g)(5) of this section~~). See 16 U.S.C. 1856. When stocks are co-managed by Federal, state, tribal, and/or territorial fishery managers, the goal should be to develop collaborative conservation and management strategies, and scientific capacity to support such strategies (including AMs for state or territorial and Federal waters), to prevent overfishing of shared stocks and ensure their sustainability.

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

~~(6) ACT control rule. If ACT is specified as part of the AMs for a fishery, an ACT control rule is utilized for setting the ACT. The ACT control rule should clearly articulate how management uncertainty in the amount of catch in the fishery is accounted for in setting ACT. The objective for establishing the ACT and related AMs is that the ACL not be exceeded.~~

~~(i) Determining management uncertainty. Two sources of management uncertainty should be accounted for in establishing the AMs for a fishery, including the ACT control rule if utilized: Uncertainty in the ability of managers to constrain catch so the ACL is not exceeded, and uncertainty in quantifying the true catch amounts (i.e., estimation errors). To determine the level of management uncertainty in controlling catch, analyses need to consider past management performance in the fishery and factors such as time lags in reported catch. Such analyses must be based on the best available scientific information from an SSC, agency scientists, or peer review process as appropriate.~~

~~(ii) Establishing tiers and corresponding ACT control rules. Tiers can be established based on levels of management uncertainty associated with the fishery, frequency and accuracy of catch monitoring data available, and risks of exceeding the limit. An ACT control rule could be established for each tier and have, as appropriate, different formulas and standards used to establish the ACT.~~

~~(7) A Council may choose to use a single control rule that combines both scientific and management uncertainty and supports the ABC recommendation and establishment of ACL and if used ACT.~~

~~(g) Accountability measures (AMs). The following features (see paragraphs (g)(1) through (5) of this section) of accountability measures apply to those stocks and stock complexes in the fishery.~~

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

~~(4) Annual Catch Target (ACT) and ACT control rule. ACTs are recommended in the system of AMs accountability measures 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 a fishery, and accounts for management uncertainty in controlling the actual 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, ~~either inseason or on an annual basis,~~ 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 ~~AMs should be implemented~~ if the average catch exceeds the average ACL, appropriate AMs should be implemented consistent with paragraph (g)(3) of this section. As a performance standard, if the average catch exceeds the average ACL for a stock or stock complex more than once in the last four years, then the system of ACLs and AMs should be re-evaluated and modified if necessary to improve its performance and effectiveness. The initial ACL and management measures may incorporate information from previous years so that AMs based on average ACLs can be applied from the first year. Alternatively, a Council could use a stepped approach where in year 1, catch is compared to the ACL for year 1; in year 2 the average catch for the past 2 years is compared to the average ACL; then in year 3 and beyond, the most recent 3 years of catch are compared to the corresponding ACLs for those years.

~~(65)~~ 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 re-evaluated, 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 ~~in the fishery that require conservation and management (see § 600.305(c)),~~ unless paragraph (h)(~~21~~) of this section is applicable. These mechanisms should describe the annual or multiyear process by which ~~specific~~ ACLs, AMs, and other reference points such as OFL, and ABC will be established. ~~If a complex has multiple indicator stocks, each indicator stock must have its own ACL; an additional ACL for the stock complex as a whole is optional. In cases where fisheries (e.g., Pacific salmon) harvest multiple indicator stocks of a single species that cannot be distinguished at the time of capture, separate ACLs for the indicator stocks are not required and the ACL can be established for the complex as a whole.~~

~~(1) In establishing ACL mechanisms and AMs, FMPs should describe:~~

- ~~(i) Timeframes for setting ACLs (e.g., annually or multi-year periods);~~
- ~~(ii) Sector ACLs, if any (including set asides for research or bycatch);~~
- ~~(iii) AMs and how AMs are triggered and what sources of data will be used (e.g., inseason data, annual catch compared to the ACL, or multi-year averaging approach); and~~
- ~~(iv) Sector AMs, if there are sector ACLs.~~

~~(12) Exceptions from ACL and AM requirements—~~

~~(i) Life cycle.~~ Section 303(a)(15) of the Magnuson-Stevens Act “shall not apply to a fishery for species that has a life cycle of approximately 1 year unless the Secretary has determined the fishery is subject to overfishing of that species” (as described in Magnuson-Stevens Act section 303 note). This exception applies to a stock for which the average ~~lengthage~~ lengthage of time it takes for an individual to produce a reproductively active offspringspawners in the population is approximately 1 year ~~and that the individual has only one breeding season in its lifetime or less.~~ While exempt from the ACL and AM requirements, FMPs or FMP amendments for these stocks must have SDC, MSY, OY, ABC, and an ABC control rule.

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

~~(23) Flexibility in application of NSI 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, ~~and~~ stocks with unusual life history characteristics (e.g., Pacific salmon, where the spawning potential ~~for a stock is spread over a multi-~~ concentrated in one

year-period), and stocks for which data are not available either to set reference points based on MSY or MSY proxies, or manage to reference points based on MSY or MSY proxies. In these circumstances, Councils may propose alternative approaches for satisfying the NSI requirements of the Magnuson-Stevens Act other than those set forth in these guidelines. Councils must document their rationale for any alternative approaches for these limited circumstances 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 in the fishery, and EC species stock complexes in their FMPs, including:

- (1) Sources of fishing mortality (both landed and discarded), including commercial and recreational catch and bycatch in other fisheries;
- (2) Description of the data collection and estimation methods used to quantify total catch mortality in each fishery, including information on the management tools used (i.e., logbooks, vessel monitoring systems, observer programs, landings reports, fish tickets, processor reports, dealer reports, recreational angler surveys, or other methods); the frequency with which data are collected and updated; and the scope of sampling coverage for each fishery; and
- (3) Description of the methods used to compile catch data from various catch data collection methods and how those data are used to determine the relationship between total catch at a given point in time and the ACL for stocks and stock complexes that are part of a fishery require conservation and management.

(j) *Council actions to address overfishing and rebuilding for stocks and stock complexes in the fishery—*

(1) *Notification.* The Secretary will immediately notify in writing a Regional Fishery Management Council whenever it is determined that:

- (i) Overfishing is occurring;
- (ii) A stock or stock complex is overfished;
- (iii) A stock or stock complex is approaching an overfished condition; or
- (iv) Existing remedial action taken for the purpose of ending previously identified overfishing or rebuilding a previously identified overfished stock or stock complex has not resulted in adequate progress.

(2) *Timing of actions—*

(i) *If a stock or stock complex is undergoing overfishing.* Upon notification that a stock or stock complex is undergoing overfishing, a Council should immediately begin working with its SSC (or agency scientists or peer review processes in the case of 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. FMPs or FMP amendments must establish ACL and AM mechanisms in 2010, for stocks and stock complexes determined to be subject to overfishing, and in 2011, for all other stocks and stock complexes (see paragraph (b)(2)(iii) of this section). To address practical implementation aspects of the FMP and FMP amendment process, paragraphs (j)(2)(i)(A) through (C) of this section clarifies the expected timing of actions.

(A) In addition to establishing ACL and AM mechanisms, the ACLs and AMs themselves must be specified in FMPs, FMP amendments, implementing regulations, or annual specifications beginning in 2010 or 2011, as appropriate.

(B) For stocks and stock complexes still determined to be subject to overfishing at the end of 2008, ACL and AM mechanisms and the ACLs and AMs themselves must be effective in fishing year 2010.

(C) For stocks and stock complexes determined to be subject to overfishing during 2009, ACL and AM mechanisms and ACLs and AMs themselves should be effective in fishing year 2010, if possible, or in fishing year 2011, at the latest.

(ii) *If a stock or stock complex is overfished or approaching an overfished condition.* (A) For notifications. Upon notification that a stock or stock complex is overfished or approaching an overfished condition made before July 12, 2009, a Council must prepare an FMP, FMP amendment, or proposed regulations within one year of notification. If the stock or stock complex is overfished, the purpose of the action is to specify a time period for ending overfishing and rebuilding the stock or stock complex that will be as short as possible as described under section 304(e)(4) of the Magnuson-Stevens Act. If the stock or stock complex is approaching an overfished condition, the purpose of the action is to prevent the biomass from declining below the

~~MSST.(B) For notifications that a stock or stock complex is overfished or approaching an overfished condition made after July 12, 2009, 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. If the stock or stock complex is overfished and overfishing is occurring, the rebuilding plan must end overfishing immediately and be consistent with ACL and AM requirements of the Magnuson-Stevens Act.~~

(3) *Overfished fishery.*—

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

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

~~(B) For scenarios under paragraph (j)(2)(i)(A) of this section, the starting year for the  $T_{\text{min}}$  calculation is the first year that a rebuilding plan is implemented. For scenarios under paragraph (j)(2)(i)(B) of this section, the starting year for the  $T_{\text{min}}$  calculation is 2 years after notification that a stock or stock complex is overfished or the first year that a rebuilding plan is implemented, whichever is sooner.~~

~~(B) The maximum time for rebuilding a stock or stock complex to its  $B_{\text{msy}}$  ( $T_{\text{max}}$ ).~~

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

~~(2) If  $T_{\text{min}}$  for the stock or stock complex exceeds 10 years, then the maximum time allowable for rebuilding a stock or stock complex one of the following methods can be used to its  $B_{\text{msy}}$  is determine  $T_{\text{max}}$ :~~

~~(i)  $T_{\text{min}}$  plus the length of time associated with one generation time for that stock or stock complex. “Generation time” is the average length of time between when an individual is born and the birth of its offspring.~~

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

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

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

~~(E)  $T_{\text{target}}$  shall not exceed  $T_{\text{max}}$ , and should be calculated based on the factors described in paragraph (j)(3).~~

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

~~(ii) If a stock or stock complex reached the end of its rebuilding plan period and has not yet been determined to be rebuilt, then the rebuilding F should not be increased until the stock or stock complex has been demonstrated to be rebuilt. If the rebuilding plan was based on a  $T_{\text{target}}$  that was less than  $T_{\text{max}}$ , and the stock or stock complex is not rebuilt by  $T_{\text{target}}$ , rebuilding measures should~~

~~be revised, if necessary, such that the stock or stock complex will be rebuilt by  $T_{max}$ . If the stock or stock complex has not rebuilt by  $T_{max}$ , then the fishing mortality rate should be maintained at  $F_{rebuild}$  or 75 percent of the MFMT, whichever is less.~~

(iii) 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  $F_{rebuild}$  are exceeded, and AMs are not correcting the operational issue that caused the overage and addressing any biological consequences to the stock or stock complex resulting from the overage when it is known (see paragraph (g)(3) of this section). A lack of adequate progress may also be found when the rebuilding expectations of a stock or stock complex are significantly changed due to new and unexpected information about the status of the stock. **If a determination is made under this provision**, the Secretary will notify the appropriate Council and recommend further conservation and management measures, and the Council must develop and implement a new or revised rebuilding plan within two years (see MSA sections 304(e)(3) and (e)(7)(B)). For Secretarially-managed fisheries, the Secretary would take immediate action necessary to achieve adequate progress toward ending overfishing and rebuilding.

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

(vi) If ~~at~~ the 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 Secretary finds that adequate progress ~~is~~ not being made.

(4) Emergency actions and interim measures. The Secretary, on his/her own initiative or in response to a Council request, may implement interim measures to reduce overfishing or promulgate regulations to address an emergency (Magnuson-Stevens Act section 304(e)(6) or 305(e)). In considering a Council request for action, the Secretary would consider, among other things, the need for and urgency of the action and public interest considerations, such as benefits to the stock or stock complex and impacts on participants in the fishery. 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.

(i) These measures may remain in effect for not more than 180 days, but may be extended for an additional 186 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 the emergency or overfishing on a permanent basis.

(ii) Often, these measures need to be implemented without prior notice and an opportunity for public comment, as it would be impracticable to provide for such processes given the need to act quickly and also contrary to the public interest to delay action. However, emergency regulations and interim measures that do not qualify for waivers or exceptions under the Administrative Procedure Act would need to follow proposed notice and comment rulemaking procedures.

(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 all of the following criteria are met:

- (i) The Secretary determines that the stock was not overfished in the year that the overfished determination (see MSA section 304(e)(3)) was based on; and
- (ii) The biomass of the stock is not currently below the MSST.

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

(k) *International overfishing.* If the Secretary determines that a fishery is overfished or approaching a condition of being overfished due to excessive international fishing pressure, and for which there are no management measures (or no effective measures) to end overfishing under an international agreement to which the United States is a party, then the Secretary and/or the appropriate Council shall take certain actions as provided under Magnuson-Stevens Act section 304(i). The Secretary, in cooperation with the Secretary of State, must immediately take appropriate action at the international level to end the overfishing. In addition, within one year after the determination, the Secretary and/or appropriate Council shall:

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

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

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

(l) *Relationship of National Standard 1 to other national standards— General.* National Standards 2 through 10 provide further requirements for conservation and management measures in FMPs, ~~but do not alter the requirement of NS1 to prevent overfishing and rebuild overfished stocks (see MSA section 301(a)), and guidelines for these standards are provided in §§ 600.315 – 600.355.~~ Below is a description of how some of the other National Standards intersect with National Standard 1.

(1) *National Standard 2* (see § 600.315). Management measures and reference points to implement NS1 must be based on the best scientific information available. When data are insufficient to estimate reference points directly, Councils should develop reasonable proxies to the extent possible (also

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

(2) *National Standard 3* (see § 600.320). Reference points should generally be specified in terms of the level of stock aggregation for which the best scientific information is available (also see paragraph (e)(1)(iii) of this section). ~~Also, scientific assessments must be based on the best information about the total range of the stock and potential biological structuring of the stock into biological sub-units, which may differ from the geographic units on which management is feasible, paragraphs (e)(1)(ii) and (iii) of this section).~~

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

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

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

(m) *Exceptions to requirements to prevent overfishing*. Exceptions to the requirement to prevent overfishing could apply under certain limited circumstances. Harvesting one stock at its optimum level may result in overfishing of another stock when the two stocks tend to be caught together (This can occur when the two stocks are part of the same fishery or if one is bycatch in the other's fishery). Before a Council may decide to allow this type of overfishing, an analysis must be performed and the analysis must contain a justification in terms of overall benefits, including a comparison of benefits under alternative management measures, and an analysis of the risk of any stock or stock complex falling below its MSST. The Council may decide to allow this type of overfishing if the fishery is not overfished and the analysis demonstrates that all of the following conditions are satisfied:

- (1) Such action will result in long-term net benefits to the Nation;
- (2) Mitigating measures have been considered and it has been demonstrated that a similar level of long-term net benefits cannot be achieved by modifying fleet behavior, gear selection/configuration, or other technical characteristic in a manner such that no overfishing would occur; and
- (3) The resulting rate of fishing mortality will not cause any stock or stock complex to fall below its MSST more than 50 percent of the time in the long term, although it is recognized that persistent overfishing is expected to cause the affected stock to fall below its Bmsy more than 50 percent of the time in the long term.

§ 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~~ (see section 304(f) of the Magnuson-Stevens Act).

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

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

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

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

(2) Alternative management units and reasons for selecting a particular one. A less-than-comprehensive management unit may be justified if, for example, complementary management ~~exists~~ 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.

§ 600.340 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).~~

(be) *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.

(cd) *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.