

## Comments in response to the Advance Notice of Proposed Rulemaking regarding potential revision of the National Standard 1 guidelines

The Advanced Notice of Proposed Rulemaking (ANPR) published on May 3, 2012, requests comments on potential revisions to the National Standard 1 Guidelines. The ANPR is wide-ranging in scope and lists 11 topics that have been identified for possible revisions. The SSC formed a working group to review each of these issues, provide more specific suggestions and identify any additional issues that may help clarify the NS1 guidelines.

The SSC provides the following comments on each of the issues identified in the ANPR.

### Issue 1: Stocks in a fishery

#### *The guidelines should clarify that stocks can and should be protected without being “in” the FMP*

The MSFCMA requires fishing to be regulated such that the *entire marine ecosystem* is protected, and both the MSFCMA and the guidelines imply that regulation is not limited to the fishery’s impacts on stocks that are “in” the respective FMP (which, in the parlance of the guidelines, means either “in the fishery” or in the EC). However, these facts continue to be widely misunderstood. Therefore, the guidelines should be amended to clarify further not only that stocks do not have to be moved into an FMP in order to receive protection from the activities of the associated fishery, but, in fact, the law *requires* that they be given an appropriate measure of protection regardless of their inclusion in an FMP. MSFCMA texts that speak to this issue include the following: Every FMP must contain “conservation and management measures” (section 303(a)(1)) and an “optimum yield” specification (section 303(a)(3)). Conservation and management measures are defined, in part, as those which are “useful in rebuilding, restoring, or maintaining, any fishery resource and the **marine environment**” and which are designed to assure that “irreversible or long-term adverse effects on fishery resources and the **marine environment** are avoided” (section 3(5), emphasis added). The specification of optimum yield is defined, in part, as the amount of fish which “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**” (section 3(33), emphasis added). Thus, the definitions of both “conservation and management” and “optimum yield” allow for the imposition of measures designed to maintain/protect the marine ecosystem apart from measures designed to maintain fishery resources or to produce food and recreational opportunities. Furthermore, section 303(b)(12) gives explicit allowance for an FMP to “include management measures in the plan to conserve target and non-target species and habitats, considering the variety of ecological factors affecting fishery populations....”

Existing guideline texts that speak to this issue include the following:

§600.310(e)(3)(iv)(C): “*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....” (Note that a species does not have to be in the EC in order to receive protection.)

Response to Comment 15: “...MSA does not compel FMPs to include particular stocks or stock complexes, but authorizes the Councils or the Secretary to make the determination of what the conservation and management needs are and how best to address them....”

§600.310(d)(1): “This section provides that a Council may, but is not required to, use an ‘ecosystem component (EC)’ species classification.”

§600.310(d)(5)(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....”

***The guidelines should not ban overfished stocks from inclusion in the ecosystem component***

The guidelines state that a stock cannot be included in the ecosystem component (EC) of an FMP if the stock is subject to overfishing, is approaching a condition of being overfished, or is overfished (§600.310(d)(5)(i)(B)). However, if a stock is the target of a particular fishery and is managed under the FMP for that fishery, it should be permissible to list that stock in the EC of a *different* FMP even if the stock is overfished (e.g., it should be permissible to list a salmon stock in the EC of a groundfish FMP, even if the salmon stock is determined to be overfished under its own FMP). Indeed, the NPFMC currently lists two crab stocks in the EC component of the BSAI groundfish FMP, even though they are determined to be 'overfished' under their primary FMP (Crab FMP). The guidelines should be clarified to remove this apparent conflict.

The following text is among those that are problematic in this regard:

§600.310(d)(5)(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.”

**Issue 2: Overfishing and multi-year impacts**

*No comments*

**Issue 3: Annual catch limits and optimum yield**

*The guidelines should provide additional guidance on how to account for the social and ecological effects of management actions*

We are concerned that micro-economic considerations (e.g., a focus on "maximum economic yield" or profit maximization), may inappropriately overshadow social and ecological considerations in the specification of TACs and OY. While commercial fishery economic performance is of legitimate interest, it may on occasion conflict with competing objectives, needs, and purposes provided for under OY. The guidelines should emphasize the necessity of considering all three dimensions of “optimum yield” (i.e., economic, social, and ecological) when evaluating its dimensions; and, in particular, should provide additional guidance on how to account for the social effects of management actions on relevant impacted populations (e.g., fishery dependent communities, non-market and/or non-consumptive users). The concept of OY, as articulated in the original language of the Act, expressly recognizes the multi-dimensional characteristic of marine resource management. While placing commercial economic success *first among equals* is a reasonable interpretation of MSA mandates regarding fishery management application, attainment of OY (i.e., maximum benefits to the Nation) cannot be achieved without explicit consideration of the other dimensions.

**Issue 4: Mixed-stock fisheries and optimum yield**

*No comments*

**Issue 5: Scientific uncertainty and management uncertainty**

***Additional clarification regarding the concepts of risk and uncertainty should be provided.***

As currently written, the guidelines all but prescribe the use of the so-called  $P^*$  approach (e.g., Shertzer et al., 2008, *Fish. Bull.* 106:225-232) to account for scientific and management uncertainty, without explicitly considering associated risks and trade-offs. Other approaches for dealing with risk and uncertainty should not be precluded from being considered. See related comment under '**Issue 7. ABC control rules**'.

**Issue 6: Data poor stocks**

***The guidelines should clarify that not all data-poor stocks require Federal management***

The guidelines should give increased emphasis to the fact that some data-poor stocks are data-poor because there is not actually a fishery for them that warrants Federal management. The solution in such cases is either to remove them from the FMP or move them into the EC rather than “inventing” a fishery for them and trying to guess the values of all the management quantities that would be required to manage this imaginary fishery if it actually existed. The Council would still, of course, be responsible for ensuring that any such stocks are afforded appropriate protection from all Federally managed fisheries that impact those stocks.

Existing texts that speak to this issue include the following:

MSFCMA section 303(h) requires the Council to prepare an FMP “for each fishery under its authority that requires conservation and management...,” not each stock in its geographic jurisdiction.

§600.310(c): “...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.’”

**Issue 7: ABC control rules**

***The guidelines should not require use of  $P^*$  in setting the buffer between ABC and OFL***

Except for cases where the available data are insufficient, the guidelines state that the only acceptable method for specifying the buffer between ABC and OFL is the  $P^*$  approach. Such a restriction is not required by the MSA and precludes approaches, such as those based on decision theory, that result in statistically optimal yields. Given that achievement of optimum yield constitutes half of NS 1, it is illogical to preclude approaches that result in statistically optimal yields. Moreover, staff of the NMFS Office of Sustainable Fisheries have indicated that the guidelines were never intended to exclude decision-theoretic approaches (Mark Millikin, pers. commun., 3/27/09). Therefore, the guidelines should be revised to allow approaches other than  $P^*$  in setting the buffer between ABC and OFL.

The following texts are among those that are problematic in this regard:

§600.310(f)(4): “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.”

Response to Comment 31: “NMFS believes that uncertainty in SDC, OFL, and other fishing level quantities is best dealt with by fully analyzing the probability that overfishing will occur and that the

stock might decline into an overfished condition, but we recognize that such a full analysis is not possible in many data-limited situations.”

Response to Comment 42: “The SSC must recommend an ABC to the Council after the Council advises the SSC what would be the acceptable probability that a catch equal to the ABC would result in overfishing. This risk policy is part of the required ABC control rule.”

Response to Comment 63: “...The determination of ABC should be based, when possible, on the probability that catch equal to the stock’s ABC would result in overfishing, and that this probability cannot exceed 50 percent and should be a lower value.”

## **Issue 8: Catch accounting**

### ***The guidelines should clarify what it means to “account” for all fishing mortality***

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:
  - i. listing those catches but not using them for determination of catch limits,
  - ii. using those catches to estimate reference fishing mortality rates (F35%, etc.),
  - iii. using those catches to estimate reference harvest amounts (maxABC, OFL, etc.) given the reference fishing mortality rates, and
  - iv. 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 following texts are among those that are problematic in this regard:

Response to Comment 35: “NMFS agrees that all sources of fishing mortality, including dead discards and post-release mortality from recreational fisheries must be accounted for, but believes that language in §600.310(e)(3)(v)(C), (f)(2)(i) and (f)(3)(i) in both the proposed and final action sufficiently explains that catch includes fish that are retained for any purposes, mortality of fish that have been discarded, allocations for scientific research, and mortality from any other fishing activity....”

§600.310(e)(2)(ii)(A)(2): “*Catch exceeds the OFL.* Should the annual catch exceed the annual OFL for 1 year or more, the stock or stock complex is considered subject to overfishing.”

§600.310(e)(3)(v)(C): “All catch must be counted against OY, including that resulting from bycatch, scientific research, and all fishing activities.”

§600.310(f)(2)(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.”

§600.310(f)(3)(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.”

§600.310(g)(2): “*Inseason AMs*. Whenever possible, FMPs should include inseason monitoring and management measures to prevent catch from exceeding ACLs....”

§600.310(g)(3): “...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....”

§600.310(l)(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.”

#### **Issue 9: Accountability measures**

##### ***The guidelines should clarify that not all accountability measures relate to ACLs***

The guidelines should clarify that FMPs necessarily contain a variety of accountability measures, and avoid giving the impression that the only accountability required is to prevent ACLs from being exceeded or to correct or mitigate overages of the ACL if they occur. The fact that the MSFCMA requires accountability measures for specifying ACLs such that overfishing does not occur (section 303(a)(15)) does not mean that this is the only thing for which Councils are accountable under the Act.

The following text is among those that are problematic in this regard:

§600.310(g)(1): “(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.”

#### **Issue 10: ACL exceptions**

*No comments*

#### **Issue 11: Rebuilding progress and revising rebuilding plans**

*Additional guidance on revising rebuilding plans for stocks with inadequate rebuilding progress should be provided*

As noted in the ANPR (page 26240) “... the guidelines do not address the situation that occurs during the course of a rebuilding plan when rebuilding progress is determined to be inadequate. Inadequate progress can result from a number of factors, including:

- a. Management measures that do not adequately control the fishery.

b. Environmental factors that limit stock growth.

c. Significant changes in the rebuilding target ( $B_{msy}$ ) resulting from a new stock assessment.

NMFS intends to improve guidance on evaluating the progress of stocks in rebuilding plans and on revising the rebuilding plans in these situations.”

In improving its guidance on situations of inadequate progress, NMFS should consider situations in which management measures *do* adequately control the fishery and when there are *no* significant changes in the rebuilding target resulting from a new assessment. The Pribilof Island blue king crab stock may offer one such example.

As stated on page 3 of the NOAA summary flyer on the Status of Stocks for 2011 ([http://www.nmfs.noaa.gov/stories/2012/05/docs/status\\_of\\_stocks\\_2011\\_4pager.pdf](http://www.nmfs.noaa.gov/stories/2012/05/docs/status_of_stocks_2011_4pager.pdf)), “Although it is often assumed that a fish stock is overfished due to too much fishing, many other factors can influence the health and abundance of a fish stock. These factors can include natural mortality, disease, natural population cycles, habitat degradation, and environmental changes such as climate, ocean acidification, and land-based pollution. For example, the fishery for Pribilof Island blue king crab has been closed to directed fishing since 1999 and a number of other measures have been implemented to protect this resource, but the stock has made no progress towards rebuilding. This failure to recover is likely due to environmental conditions that are unfavorable to the blue king crab’s reproduction and survival rates.”

As further background on the example of the Pribilof Islands blue king crab stock, in 2002 NMFS declared the stock to be overfished. A rebuilding plan was implemented in 2003 that included a provision that prohibited directed fishing until the stock was rebuilt. However, the directed blue king crab fishery has been closed since 1999 and the rebuilding plan has constrained bycatch to low levels. In 2009 NMFS notified the Council that the current rebuilding plan would not achieve adequate progress to rebuild the stock by 2014. To comply with section 304(e)(7) of the Magnuson-Stevens Act, the Council was required to develop a new rebuilding plan. Analysis of the impacts of the alternative closure configurations on the rebuilding potential for the PIBKC stock showed limited effect on rebuilding between the ranges of alternative closures. Nevertheless, the Council recommended Alternative 2b as its preferred alternative, which closes the Pribilof Island Habitat Conservation Zone (PIHCZ) to fishing for Pacific cod with pot gear. The PIHCZ has been closed to trawling since 1995. Whereas the action was justified because it will further reduce fishing mortality on the blue king crab stock, we can envision situations (perhaps Pribilof Islands blue king crab in another 10 years) in which all forms of fishing mortality on a stock are sufficiently controlled to the extent that fishing cannot be the cause of lack of stock rebuilding. In such cases, where it can be clearly demonstrated that fishing mortality is sufficiently controlled (i.e., no directed fishery and bycatch is *de minimus*) and there is no change in the rebuilding target, new guidelines might consider some expedited process to “roll over” the existing rebuilding plan, thus avoiding the need to expend limited staffing and fiscal resources for situations in which environmental factors are likely responsible for the lack of stock recovery.

The guidelines should also address data-poor situations where information is lacking to inform rebuilding progress. Qualitative analysis (e.g., SWOT analysis, scenario planning) may be considered as an alternative tool to develop the rebuilding plan when quantitative rebuilding models are limited by available data.