MARINE MAMMAL COMMISSION

30 June 2015

Wesley Patrick, Ph.D.
Fishery Policy Analyst
National Marine Fisheries Service
1315 East-West Highway, Room 13357
Silver Spring, MD 20910

Re: Proposed Revisions to National Standard 1 Guidelines

Dear Dr. Patrick:

On 20 January 2015 the National Marine Fisheries Service (NMFS) published a proposed rule (80 Fed. Reg. 2786) to revise National Standard Guidelines (NS guidelines) 1, 3, and 7 of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The Marine Mammal Commission (Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the proposed revisions to the NS 1 guidelines and offers the following comments and recommendations.

Background

NMFS proposes to revise the NS 1 guidelines in order to facilitate compliance with the Magnuson-Stevens Act (MSA), including the requirement to achieve optimum yield (OY). The proposed rule attempts to provide additional flexibility to the regional Fishery Management Councils (Councils), such as in setting timelines for rebuilding overfished stocks and for adjustment to management measures when fishery conditions change. NMFS also wishes to provide additional clarity in how it will meet the MSA mandate to stop overfishing and achieve OY. The proposed rule would make 12 revisions to the NS guidelines, with the most relevant for the Commission's duties being (1) reassessment of Fishery Management Plan (FMP) objectives; (2) guidance on stocks that require conservation and management measures; and (3) guidance on OY.

Under the MSA (16 U.S.C. § 1802(3)) "The term 'optimum', with respect to the yield from a fishery, means the amount of fish which–(A) will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems; (B) is prescribed as such on the basis of the maximum sustainable yield [MSY] from the fishery, as reduced by any relevant economic, social, or ecological factor; and (C) in the case of an overfished fishery, provides for rebuilding to a level consistent with producing the maximum sustainable yield in such fishery." Furthermore, the MSA (16 U.S.C. § 1802 (5)) notes that–"conservation and management" refers to "all of the rules, regulations, conditions, methods, and other measures … required to rebuild, restore, or maintain … any fishery resource *and the marine environment*" (emphasis added). While NMFS and the Councils have been successful in reducing much overfishing in the United States, there is still considerable room for progress in fully incorporating ecosystem-based management principles into FMPs. With specific reference to NS 1 guidelines, there is a need for clear guidance concerning when and by how much to reduce MSY to

account for "ecological factors." Of greatest concern to the Commission are direct and indirect impacts of fishing on marine mammals and their ecosystems.

The Commission provided extensive comments on NS 1 guidelines in its 2 October 2012 letter in response to NMFS's 3 May 2012 Advanced Notice of Proposed Rulemaking on the same topic, reflected in five major recommendations (see link below). Those comments will not be repeated here; rather we discuss how the Commission's previous recommendations are or are not addressed in the proposed rule for the NS 1 guidelines.

1) Include a more complete range of ecosystem-based fishery management principles, objectives and practical approaches in developing FMPs and determining OY

The proposed rule would specify that Councils should consider re-evaluating the management objectives of their FMPs on a regular basis and should consider the changing needs of the fishery and relevant factors to determine OY (§ 600.305(b)(1) and (2)). The proposed rule would also establish that Councils should consider the FMP management objectives and management framework in order to identify the relevant factors – including ecological factors – to determine OY (§ 600.310(e)(3)(iii)(B)). These proposals are new measures which the Commission supports, particularly if there were specific reference to responses to changes in other ecosystem components, such as protected species. The Commission also agrees with the proposal to amend § 600.310(e)(3)(iii)(B)(3) to include stressors not only to marine organisms but to their habitats in the list of ecological factors that should be considered in determining OY.

2) Consider competition between fisheries and other ecosystem consumers and ensure protection of forage fish and species that depend on them

For interactions among fish stocks, NMFS is proposing measures for determining aggregate MSY estimates, and adding guidance on the use of indicator stocks for fish stock complexes. Regarding ecosystem impacts of fisheries on marine mammals, NMFS is not proposing any revisions specific to forage fish, indicating in the preamble to the rule that this issue was addressed in the 2009 guidelines. Current regulations indicate that "*consideration should be given* to managing forage stocks for higher biomass than Bmsy to enhance and protect the marine ecosystem" (§ 600.310(e)(3)(iv)(C)) (emphasis added). The Commission is concerned that "giving consideration" does not provide for adequate protection of forage stocks whose biomass should be maintained at levels higher than Bmsy. Section 600.310(e)(3)(iii)(A)(*3*) provides that "In determining the greatest benefit to the Nation, the values that *should* be weighed and receive serious attention when considering the … ecological factors used in reducing MSY, or its proxy, to obtain OY are: … maintaining adequate forage for all components of the ecosystem, . . .[and] maintaining the evolutionary potential of species and ecosystems . . ." (emphasis added). The current NS 1 guidelines (§ 600.310(e)(3)(ii)) indicate that "an FMP *must* contain an assessment and specification of OY" (emphasis added); thus, it would be more consistent to specify what the assessment and specification *must* include to address these ecological factors.

The Commission recommends that NMFS amend the NS 1 guidelines to require that forage stocks be managed to maintain biomass levels higher than Bmsy when necessary to provide for the needs of the ecosystem, including protected species. That is, OY determination *must* give

consideration to the requirements of marine mammals, other protected species, and other ecosystem components.

The Commission notes that the proposed rule includes a list of factors to be weighed when determining which stocks require conservation and management. One of these is whether "[t]he stock is an important component of the marine environment" (§ 600.305(c)(1)(i)). The Commission believes it would be helpful to provide further guidance concerning what constitutes "an important component." For example, would a fish stock be considered an important ecosystem component if it is a major forage species for marine mammals or other protected species? The list of factors in the proposed rule fails to consider the situation in which a fishery requires management because of the impact it has on the ecosystem or environment through, for example, the removal of resources required by other ecosystem components or the fishery's impact on important habitats of marine mammals or other protected species. In § 600.305(c)(3) there is a proposed change to underscore that management measures can be adopted in order to "minimize bycatch or bycatch mortality… or for other reasons." While these proposed changes to the NS 1 guidelines bring additional focus on certain ecological aspects associated with determining OY, there is no specific mention of ecosystem health or protected species needs. The Commission therefore recommends that the list in § 600.305(c)(1) be revised to include a requirement to assess a fishery's ecological impacts, including impacts on protected species, in determining whether the target fish stocks require conservation and management. Since ecological impacts are one of three factors that are used to determine OY, their importance is clearly recognized by the MSA and needs to be reflected in the list.

Interactions among fish stocks, fisheries and ecosystem components such as marine mammals or environmental processes (e.g., climate change) can and should be addressed in determining OY. Models that can inform the stock assessment process by analyzing such interactions are increasingly available, making it possible to incorporate the results into stock assessments. Therefore, the Commission recommends that NMFS include in its regulatory guidance a requirement that, whenever feasible, ecosystem interactions (e.g., competition between a fishery and marine mammals for fish) be quantitatively assessed and formally incorporated into stock assessments and stock assessment models.

3) Expand approach to setting OY to provide clearer guidance

The MSA requires that fishery managers prevent overfishing and achieve OY on a continuing basis. Section X in the preamble to the proposed rule notes that setting OY continues to be a challenge and is done in several different ways by the various Councils; therefore the proposed revisions are aimed at providing greater clarity and guidance to achieve consistency. The 2006 amendments to the MSA prompted NMFS to revise the NS 1 guidelines by requiring Councils to set several reference points, notably an overfishing limit (OFL), allowable biological catch (ABC), annual catch limits (ACL), and in some cases, an Annual Catch Target (ACT) for each fishery. While these catch level reference points eliminated the requirement to specify an annual target OY (although Councils can still specify this OY), the proposed rule would clarify how OY is to be used as a factor in setting these various levels of catch, such that OY is achieved on a regular basis over the longer term.

The major changes proposed to the NS 1 guidelines for OY are found in § 600.310(f)(4)(iv) in the section entitled "Relationship between OY and the ACL framework." For most fisheries,

OFL is an upper limit on ABC, which is an upper limit on ACL, which, finally, is an upper limit on ACT (OFL > ABC > ACL > ACT). The margins established between these levels of catch are influenced by a number of factors, including scientific and management uncertainty (see section below) and ecological considerations. The proposed revisions to the text of the NS 1 guidelines describe how OY considerations can be factored into setting an ACL or ACT lower than ABC to account for ecological, social, or economic factors. The proposed rule also would add language to clarify that, when it is not possible to quantify the analysis of factors behind OY, a qualitative description of OY can be used (§ 600.310(e)(3)(iv)(A)); however, the proposed rule offers no clear explanation of what such a qualitative description should contain or address. The Commission therefore recommends that NMFS provide additional guidance for fishery managers with respect to the form and content of a qualitative rationale when applying these factors to determine OY.

4) Require more realistic assessment and incorporation of uncertainty in stock assessments and fishery management - including scientific uncertainty in setting catch limits

The proposed rule would revise guidance for addressing management uncertainty and scientific uncertainty, with new definitions for both proposed in § 600.310(f)(1)(v)-(vi). The definition of scientific uncertainty includes a long list of possible sources, including "potential ecosystem and environmental effects." The Commission supports these new definitions and recommends that specific reference to lack of information on or knowledge of protected species interactions (direct and indirect) be added to the definition of scientific uncertainty. The ABC control rule is described in § 600.310(f)(2), with new text referring to scientific uncertainty in the OFL and the Council's risk policy. This policy would be based on some probability (at least 50 percent) that catch would not result in overfishing, although Councils can consider trade-offs between social, economic, and ecological factors in determining the level of risk they are willing to accept. The Commission recommends that the Councils' risk policies be formally evaluated by NMFS in order to ensure that scientific and management uncertainty is adequately addressed to achieve a precautionary approach with respect to the fishery's impact on protected species and the ecosystem. In doing so, the Commission notes that achieving a 50 percent probability of not overfishing is a comparatively low standard and therefore would not be deemed precautionary in most circumstances.

Rapidly changing ocean conditions, such as increased water temperatures, acidification, and shifts in the distribution of populations of targeted fish as well as associated species assemblages, will also call for adaptive fishery management. These expected marine ecosystem changes underscore the need for a more dynamic management system, which is one of the goals of the proposed rule. The proposed rule would add a clause directing that "assessment and specification of OY should be reviewed on a continuing basis so that it is responsive to changing circumstances in the fishery" (§ 600.310(e)(3)(iii)). Revising rebuilding plans and/or emergency measures could include a situation where there is new or changing information regarding ecosystems – e.g., shifting stocks of predator and prey species in response to changes in water temperature. Councils need flexibility to be able to respond not just to changes in the targeted and associated fish stocks, but also to other ecosystem components. The Commission recommends that NMFS include specific references to the uncertainty associated with shifting conditions and species distributions (including fish stocks, marine mammals, and other protected species) in the mandates for Councils to revise their FMP objectives and OY specifications.

Other proposed changes to the NS guidelines

The proposed rule would add a new provision (§ 600.310(j)(3)(iv)) that would require the Secretary of Commerce to review rebuilding plans to assess progress towards ending overfishing and rebuilding fish stocks. The Commission recommends that this review include an assessment of how well the rebuilding plan (and associated FMP) has addressed ecosystem impacts, with documentation of fishing impacts on other species of fish, protected species, and habitat. The Commission also recommends that these rebuilding plan reviews be conducted whenever there are significant changes to the fishery or ecosystem, or at least once every five years. Once again, the Commission views this as part of the MSA requirement to achieve OY in the long term, which incorporates ecological factors.

The proposed rule would add flexibility for fishery managers in at least four ways: (1) changes to the time limit to rebuild fish stocks (three alternative calculations of the time period); (2) provisions for emergency rules; (3) additional leeway in providing for overages and underages in target stock catches to be applied to the next fishing year's ABC; and (4) phase-in adjustment of ABCs (upward or downward) to provide stability to the fishery. While the Commission is generally in agreement with these measures to allow for more flexibility, ecosystem impacts should be a more explicit part of the analyses when considering the use of such allowances. For example, while the target stock may support a carryover of the previous year's underage in harvest, this could increase the level of fishing effort and bycatch of protected species. Therefore, the Commission recommends that these flexibility measures include consideration of the potential impacts on other species in the marine ecosystem, as required under the determination of OY.

The Commission trusts that these comments and recommendations are useful as NMFS revises the NS guidelines. Please contact us if you have any questions regarding our letter.

Sincerely,

Rebecca J. Lent, Ph.D.
Executive Director

http://www.mmc.gov/letters/pdf/2012/Revision_NatStand_Guidelines_100212.pdf