

MEMORANDUM

TO: Council and AP Members  
FROM: *CO* *FOR*  
Chris Oliver  
Executive Director  
DATE: February 1, 2010  
SUBJECT: Groundfish Annual Catch Limits (ACLs)

ESTIMATED TIME  
2 HOURS

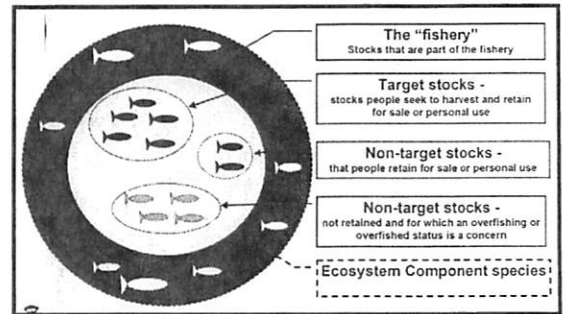
ACTION REQUIRED

*Jane & Melonie*

Initial Review of Environmental Assessment to comply with ACL Requirements.

BACKGROUND

The Magnuson-Stevens Act and the National Standard 1 Guidelines require Councils to develop measures to prevent overfishing, rebuild overfished stocks, achieve optimum yield, and to establish annual catch limits (ACLs) and accountability measures (AMs) for species and species groups identified to be "in the fishery." An ecosystem component (EC) category may also be included in the FMPs for species and species groups that are not targeted for harvest, not likely to become overfished or subject to overfishing, and not generally retained for sale or personal use.



The proposed action is to amend the BSAI and GOA Groundfish FMPs to identify target groundfish stocks in the fishery, forage fish species either in the fishery or in the ecosystem component category, prohibited species in the EC category, and non-specified species outside of the FMPs. The analysis considers three alternatives:

Alternative 1 is the No Action alternative.

Alternative 2 would:

- 1) manage target species "in the fishery;"
- 2) eliminate the other species category and manage (GOA) squids, (BSAI and GOA) sculpins, (BSAI and GOA) sharks, and (BSAI and GOA) octopus separately "in the fishery", and
- 3) manage prohibited species and forage fish in an ecosystem component category; and remove the non-specified species category from the FMPs.

Alternative 3 is the same as Alternative 2, except forage fish would be managed "in the fishery."

The analysis was mailed out on January 26, 2010. The executive summary is attached under Item C-4(1).

## EXECUTIVE SUMMARY

This Environmental Assessment (EA) provides environmental and socio-economic analyses for a proposed action in accordance with the National Environmental Policy Act (NEPA). Amendments 96/87 to the Fishery Management Plan (FMP) for Groundfish of the Bering Sea and Aleutian Islands (BSAI) Management Area and FMP for Groundfish of the Gulf of Alaska (GOA) are necessary for the groundfish FMPs to conform to the revised National Standard 1 guidelines and the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

While the Council's groundfish annual harvest specification process generally complies with the guidelines for National Standard 1, some amendments to the groundfish FMPs are required to improve the description of the harvest specifications process in the FMPs and document compliance with ACL and AM requirements; however, those amendments to the text of the FMPs are categorically excluded from NEPA (see Appendix 1 for more information).

One basic change to the FMPs that is included in this EA requires the identification of stocks in the fishery for the purpose of setting ACLs and AMs; i.e., stocks in the fishery must have ACLs and AMs specified for them, either individually or in aggregate. The Council proposes to eliminate the other species category, and list its component groups in the fishery. The guidelines allow the identification of a new ecosystem category (EC), within which stocks would not be subject to ACL and AM requirements. The Council proposes to list prohibited species in this new EC category while retaining the current management regime for them; in effect the only change would be to exclude them from requirements to implement ACLs and AMs by moving them under an EC category "umbrella," since prohibited species currently are not subject to ACLs and AMs. The Council proposes to list the forage fish category 1) in the fishery, where they would be subject to ACLs and AMs or 2) in the EC category, where they would not be subject to them, but in which they would retain their current management regime. The Council also proposes to remove reference to non-specified species from the FMP because these species are too poorly understood to set ACLs and AMs for them or to develop a management regime for them. As species or groups are understood sufficiently the Council will consider moving them into the FMP, either in the fishery or the EC category; for example the Council has initiated an analysis that will consider listing grenadiers (currently a non-specified species) either in the fishery or in the EC category.

This action is necessary to comply with requirements of the MSA to end and prevent overfishing, rebuild overfished stocks, and achieve optimum yield, and to comply with statutory requirements for annual catch limits (ACLs) and accountability measures (AMs). Species and species groups must be identified "in the fishery" for which ACLs and AMs would be required. An ecosystem component category may also be included in the FMPs for species and species groups that are not targeted for harvest, or likely to become overfished or subject to overfishing, and are not generally retained for sale or personal use. Proposed FMP text will document compliance with ACL and AM requirements through the harvest specification process. These must be addressed by the statutory deadline of the start of the 2011 groundfish fisheries. To ensure the implementing regulations are consistent with the language in the FMPs regarding the other species category, minor regulatory amendments also would be part of this action, as further described in the RIR in the appendix.

The EA addresses the statutory requirements of NEPA to predict whether the impacts to the human environment resulting from implementation of Amendments 96/87 will be "significant," as that term is defined under NEPA. If the predicted impacts from the selected action are found not to be significant, no further analysis is necessary to comply with the requirements of NEPA.

Three alternatives are analyzed for revising the BSAI and GOA groundfish FMPs in this EA.

Alternative 1. No action

**Alternative 2. Revise the Groundfish FMPs to comply with requirements to set annual catch limits and accountability measures**

- Eliminate the other species category and manage (GOA) squids, (BSAI and GOA) sculpins, (BSAI and GOA) sharks, and (BSAI and GOA) octopus separately in the target species category.
- Target Species are “in the fishery.”
- Prohibited species and forage fish are in the ecosystem component category.
- Non-specified species are removed from the FMPs.

**Alternative 3. Revise the Groundfish FMPs to comply with requirements to set annual catch limits and accountability measures**

- Eliminate the other species category and manage (GOA) squids, (BSAI and GOA) sculpins, (BSAI and GOA) sharks, and (BSAI and GOA) octopus separately in the target species category.
- Target Species and forage fish are in “the fishery.”
- Prohibited species are in the ecosystem component category.
- Non-specified species are removed from the FMPs.

Under the no action alternative the groundfish FMPs soon may become out of compliance with the MSA and revised National Standard 1 guidelines. Currently NMFS and the Council do not have the ability to separately protect sharks, sculpins, octopuses, and some squids from the risk of overharvesting, as these species are managed as a complex under the other species category. While the Council may set a conservative total allowable catch (TAC) for the other species stock assemblage, harvest of one group could comprise the entire TAC for the assemblage. This is particularly problematic since the biomass and population dynamics of the other species groups are uncertain. Shark species have low fecundity and low growth rates, which would lead to slow recoveries if stocks were fished down. Biomass estimates for squid and octopuses are uncertain due to their life history characteristics, which result in them being not well surveyed by bottom trawls. Sculpins are abundant and biomass is well estimated, however their abundance masks potential overharvesting of less abundant species (i.e., sharks) managed with them collectively under the other species assemblage.

Revenues from the groundfish fisheries could be higher under the status quo compared to the action alternatives in the short run if the biomass of sharks, for example, was being driven down due to overharvesting by target fisheries in which they are incidentally caught. Revenues could be lower in the longer run if a reduced biomass required lower TACs. Also, fishing costs may be higher, due to lower catch per unit of effort if the biomass(es) was fished down. A key tradeoff could occur between the immediate cost of possible constraints on the directed groundfish fisheries that catch these groups incidentally and the long-term benefits from their protection, with possibly larger harvests of those groups and higher revenues in the long run.

The analysis identified no potential impacts in target categories that incidentally harvested sculpins; this is partly due to this group being managed under tier 5, instead of average historical catches under tier 6 for the remaining groups. Several target categories may be impacted by the proposed action for sharks, octopuses, and GOA squids. The analysis found that 2008 and 2009 harvests of individual groups would not have exceeded a 2009 OFL or ABC of any of the seven groups, if those specifications had been in place that year; however each of these groups had at least one year when catch exceeded one of these benchmarks between 2005 and 2007. Thus it can not be predicted whether proposed group level specifications would impact target fisheries in the future, given the fluctuations in incidental catches and

potential for voluntary measures to reduce these harvests by the fishing fleets. Overall, it is unknown whether fishing practices would change significantly under this amendment. The Council can control whether a future directed fishery develops for the groups by the level at which it sets the annual TACs.

The purpose of the proposed action is to comply with requirements of the MSA to end and prevent overfishing, rebuild overfished stocks, and achieve optimum yield, and to comply with statutory requirements for ACLs and AMs. Alternatives 2 and 3 may lead to short-term reductions in gross revenues due to foregone harvest of BSAI and GOA sharks, BSAI and GOA sculpins, BSAI and GOA octopuses, and GOA squids, and all directed fisheries that encounter these species incidentally, but in the long run may lead to greater gross revenues, as a result of protecting the biomasses of the other species groups. Given the uncertainties about future TACs for squid, shark, sculpin, and octopus, and with respect to industry's valuation of the tradeoff between potential short-run restrictions and long-run sustainability, the socio-economic impacts is difficult to quantify, but is discussed qualitatively in Section 1.5.

The proposed action is limited in scope and is likely to have limited effects on most environmental components of the BSAI and GOA. The effects discussion includes more in-depth discussion on biological, social and economic impacts on groundfish target species, prohibited species, forage fish species, and non-specified species; and limited discussion for seabirds, marine mammals, habitat, and ecosystem effects. No significant cumulative effects were identified.

Alternatives 2 and 3, which provide more protection to the biomasses of the groups than the status quo, has been given an insignificant designation for environmental effects. No additional bycatch of groundfish, prohibited species, forage fish, or non-specified species is expected to be taken as additional target fisheries are not expected to develop as a result of this proposed action. Should a target fishery develop in the future, the effects of increased harvests of those species are expected to be insignificant because harvest limits (target and incidental) are already in effect for those fisheries in which they are harvested. It is unknown whether foregone target groundfish catch (e.g., Pacific cod) would be expected because proposed catch limits for squids, sharks, sculpins, and octopuses were not determined to be limiting on those fisheries in 2008 or 2009; although some instances were found in 2005 - 2007 in a theoretical example. Alternatives 2 and 3 would limit the amount of sharks, sculpins, octopuses, and squids that can be harvested under individual ACLs; however they would continue to be managed under collective other species maximum retainable amount (MRA) and prohibited species catch (PSC) limit regulations.

Additional elements under both Alternatives 2 and 3 include: 1) maintaining the entire regulatory structure (unchanged) for prohibited species but listing them under a new "umbrella" management category for ecosystem components; and 2) removing non-specified species from the FMPs.

Alternative 3 differs from Alternative 2 only in proposed management of forage fish. Alternative 2 would maintain the entire regulatory structure (unchanged) for forage fish species but list them, along with prohibited species, under an ecosystem component category "umbrella." Under Alternative 3 forage fish species would be subject to ACLs and AMs, but also would maintain requirements to designate essential fish habitat and for EFH consultation on federal actions that may adversely affect EFH. Because not enough information is available to describe forage fish EFH at this time, the impacts of Alternatives 1, 2 and 3 are the same on EFH for forage fish and not significant. Alternatives 1 and 3 may have a future beneficial impact on forage fish as NMFS will be required to review information regarding EFH for forage fish every 5 years; and once information becomes available, may designate EFH for forage fish. Any benefit is not likely significant as EFH for other species is extensive and is likely to overlap with any forage fish EFH so that EFH consultation is likely already occurring for forage fish habitat.

Alternatives 2 and 3 are likely to have beneficial effects for marine mammals, seabirds, and the ecosystem compared to Alternative 1 as other species would be managed at the level of the separate groups, reducing

the potential for overfishing. Many marine mammals and seabirds are dependent on species that are currently managed in the other species group. Protection of these potential prey species would be beneficial to the ecosystem, especially in maintaining predator-prey relationships. The beneficial effect is not likely to be significant as there is no evidence currently of overfishing the species in the other species category and the impacts are not likely to be seen at population levels for seabirds and marine mammals.

The effects of Alternative 2 and 3 on marine mammals, seabirds, the ecosystem, and habitat differ only in whether forage fish are placed in the fishery or not. As described above, Alternatives 1 and 3 provides a future potential benefit to the protection of forage fish essential fish habitat. Any protection of forage fish may lead to a modest beneficial effect for those species and the part of the ecosystem that depends on forage fish.