

**Ocean Conservancy • Natural Resources Defense Council • Marine  
Fish Conservation Network**

November 3, 2009

Mr. David Ortmann, Chair  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland, OR 97220-1384

Re: Public comments on Agenda Item G.5.c, Amendment 23 to Implement ACLs and AMs

Dear Mr. Ortmann and Council members:

We appreciate the efforts of the Pacific Fishery Management Council to amend the Groundfish Fishery Management Plan (FMP) in order to implement the new requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the revised National Standard 1 guidelines. Our organizations submitted comments in April 2009 when the Council undertook initial scoping for a proposed amendment to incorporate the revised NS1 guidelines in the groundfish FMP. We incorporate those comments by reference, and would like to build on them by providing additional recommendations.

We are pleased to see that the Council is moving forward in amending the FMP in a timely fashion to put in place a management approach that sets catch thresholds, limits and targets that account for both management and scientific uncertainty. Although the groundfish FMP incorporates some of the components of the National Standard 1 guidelines for several species, significant FMP amendments as well as modifications to other catch setting related processes (such as the Scientific and Statistical Committee (SSC), Stock Assessment Review (STAR) panel and Groundfish Management Team (GMT) development of management recommendations) are still in order to meet the statutory requirements and the NS1 guidelines.

**Acceptable Biological Catch Control Rule**

In Amendment 23, the Council must develop an Acceptable Biological Catch (ABC) control rule that articulates how ABC will be set relative to the overfishing limit (OFL) based on scientific uncertainty in the estimate of OFL and the Council's chosen probability of overfishing for the given species. When the probability of overfishing and/or level of scientific uncertainty cannot be calculated (e.g. category 2 or 3 species) then another approach to setting a scientific uncertainty buffer (e.g. PSA) should be used.

The SSC has suggested a potentially useful approach to quantifying scientific uncertainty for data-rich species that focuses on what is described as "among assessment" uncertainty (Agenda Item G.5.b). However, the SSC itself, in describing the analysis on which a proposed control rule for Category 1 stocks could be based, recognizes that its analysis only accounts for certain types of uncertainty, and thus should be considered to result in a lower bound for scientific uncertainty for the stocks in question. Moreover, the NS1 guidelines emphasize that, while the probability that overfishing will occur cannot exceed 50 percent, it must be significantly less in

mandate to end and prevent overfishing is met. Finally, given that there is always uncertainty in the estimate of MSY and OFL, as the SSC demonstrates, it should never be the case that ABC is set equal to OFL, and we urge the Council to reject such an approach.

We offer the following specific comments to help guide development of Amendment 23:

- Any approach to setting ABC must comprehensively address all sources of scientific uncertainty for all stocks, including data-limited stocks without assessments, which account for 75-80% of the stocks in the FMP. Uncertainty buffers for each category should provide increasing precaution with decreasing levels of information and increasing uncertainty.
- The amendment should develop a process in which the Council selects an acceptable probability of overfishing (P\*) for stocks in each data availability category that will ensure the long-term sustainability and viability of groundfish species.
- While the “among assessment” variability focused on by the SSC in attachment G.5.b is a useful measure, we are concerned that it may be too limited to serve as the basis for an overall approach to measuring scientific uncertainty for purposes of setting catch levels for Tier 1 stocks. For example, lack of independence between assessments could result in a severe underestimate of observational error, and/or systematic biases in model output may not be adequately addressed.
- The amendment should not develop “one-size fits all” approaches to establishing ABCs. Rather, the control rule should primarily be a function of items such as data availability and assessment reliability.
- The Council should incorporate productivity-susceptibility analysis (PSA) into the ABC control rule. PSA can help inform the level at which the ABC should be set below the OFL. We recommend incorporating PSA into the control rule for data rich stocks as well as data-limited stocks. While some aspects of biological productivity and fishery susceptibility are incorporated into all data-rich stock assessments (e.g. M, age at maturity, fecundity, selectivity, etc.), this is generally not the case for all the variables scored within a PSA (e.g. reproductive strategy, trophic level, bycatch in other fisheries, etc.).
- We recommend that the SSC consider the systems for setting scientific uncertainty buffers under development by the South Atlantic and other councils, which, in addition to including data and assessment variability, incorporate stock status, biological characteristics and fishery susceptibility factors.

### **Management Uncertainty Control Rule**

Amendment 23 must establish a process for setting Annual Catch Limits (ACLs), annual catch targets (ACTs), and AMs intended to avoid overfishing and achieve OY that considers uncertainty in management control of the fishery. Under the current groundfish FMP, optimum yield (OY) is a catch level that is reduced from the overfishing threshold to account for both management and scientific uncertainty. While the use of OY for groundfish management is similar to the ACL under the NS1 guidelines, as it is reduced from the ABC to account for management uncertainty, modifications to the use of OY must be made to ensure it is directly analogous to the legally required ACL. In practice, the Council very often closes fisheries when they are approaching the OY. The FMP, however, does not currently clearly associate AMs, including closures, with OYs. The law and the guidelines require that the Council set numeric ACLs that trigger accountability measures (AMs) for all species the Council manages. Therefore, in addition to specifying OY for all species as required under the law and the guidelines, the FMP must also include ACLs for each of its species with associated AMs.

The guidelines call on councils to establish a “target” control rule for setting annual catch targets (ACTs) below the ACL if an ACT is used as part of the AMs designated for the fishery. This target control rule should clearly articulate how to account for management uncertainty. Regardless of the effectiveness of the fishery’s management controls and the quality of data monitoring and collection in the fishery, some degree of management uncertainty will always be present in a fishery. As such, an ACT, which is set below the ACL based on the level of management uncertainty, should be used for all species managed by the Council. Amendment 23 should include a control rule that will result in catch targets for all species that have a very high probability that the ACL will not be exceeded. By establishing targets with appropriate margins below the limit to account for management uncertainty and then managing toward that target, the probability of meeting appropriate legal mandates, such as ending and preventing overfishing and achieving optimum yield, is greatly enhanced. In addition, setting an ACT below the ACL is the best measure for ensuring that additional, more disruptive AMs will not be needed.

As the groundfish management team’s evaluation on the effectiveness of groundfish management to prevent overfishing indicates, Pacific groundfish management has improved significantly in its ability to monitor catch in-season and implement in-season adjustments to ensure the OY set by the Council is not exceeded. Nonetheless, we recommend that an ACT be used for all species. Requiring the setting of ACTs will ensure that the Council regularly assesses management performance for every species. The effectiveness evaluation lays the groundwork for determining how far below the ACL an ACT should be set for some species. For those species for which real-time catch reporting is available and that have sufficient observer coverage, the ACT may be set very close to the ACL. For other species, such as those with high rates of discard mortality, or where real-time data is not available, the ACT should be set further below the ACL to ensure it is not exceeded.

We recommend the Council employ a methodology for assessing management uncertainty associated with Pacific groundfish species, and developing a control rule for setting the ACT relative to the ACL. Such a methodology would identify sources of management uncertainty, developing measures and scoring methods, and deriving a method for setting management buffers based on those scores. We appreciate the initial efforts of the GMT to review management performance and sources of management uncertainty to help guide development of AM 23.

### **Accountability Measures**

Pursuant to the MSA and the NS1 Guidelines, Amendment 23 should identify a full suite of AMs and require implementation of AMs for fisheries when the ACT is reached, the ACL is being approached or the ACL has been exceeded. Specifically setting forth in the FMP the accountability measures that will be triggered will help improve predictability for fishermen and avoid conflict.

The FMP currently includes catch limits and bycatch limits for very few (?) species that trigger fishery closures when they are reached, and very few Pacific groundfish species have AMs associated with ACLs. The Amendment should formalize and expand, whenever possible, the current Council practice of in-season adjustments on a regular basis to help ensure management thresholds are not exceeded. In addition Amendment 23 must include post season AMs for instances where inseason adjustments are not possible and consider the use of overage deductions in cases where the ACL has been exceeded. This overage deduction requires a reduction in the ACL at least equal to the amount that catch exceeds an ACL in the previous year.


## Stock Complexes

Under the MSA, an FMP must contain a description of the species of fish involved in the fishery, which is an important element of the FMP, as SDC, ACLs, AMs and other reference points are required to be identified for all "stocks in the fishery." The NS1 guidelines provide that stocks in a fishery may be grouped into complexes based on similarity in geographic distribution, life history and vulnerabilities, and provide guidance as to the use of indicator stocks in stock complexes. In addition, the guidelines state that vulnerability of stocks to the fishery should be reevaluated to determine if a particular stock complex should be established or reorganized or if a particular stock should be included in a complex.

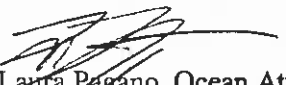
Per the NS1 guidelines requirement that species aggregated in complexes have similar vulnerabilities, the Council should revisit current stock complexes to determine if they are consistent with the guidelines. This should be done based on guiding principles, which could include: 1) basing the decision to include or not include species in a complex on the behavior of the fishery and a well-informed analysis of the similarities and dissimilarities in vulnerabilities and life history characteristics, 2) developing objective criteria for how similar or dissimilar species must be, and 3) validating those criteria through simulation modeling and the analysis of data-rich stocks.

We appreciate your consideration of our comments as the Council continues development of Amendment 23. We look forward to working with the Council to ensure successful implementation of the new MSA requirements and National Standard 1 guidelines.

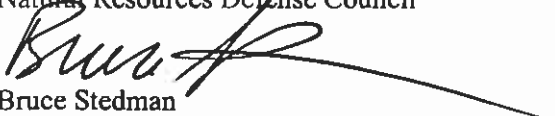
Sincerely,



Chris Dorsett, Director, Fish Conservation and Management  
Ocean Conservancy



Laura Pagano, Ocean Attorney  
Natural Resources Defense Council



Bruce Stedman  
Marine Fish Conservation Network