



September 22, 2008

Mark Millikin, Domestic Fisheries Division
National Marine Fisheries Service, NOAA
Office of Sustainable Fisheries
1315 East-West Highway, Room 13357
Silver Spring, MD 20910

Re: Magnuson-Stevens Act Provisions; Annual Catch Limits; National Standard Guidelines.
Proposed Rule. 73 Federal Register 32526 (June 9, 2008).

Dear Mr. Millikin:

I am writing to submit the comments of the Federal Fisheries Policy Reform Campaign of the Pew Environment Group (PEG) on the proposed annual catch limit (ACL) rule referenced above. PEG commends the National Marine Fisheries Service (NMFS) for developing a proposal that represents a good faith effort to implement new legal requirements to end overfishing through the establishment of annual catch limits (ACLs) and accountability measures (AMs). In general, we support the proposed revisions to the national standard one (NS1) guidelines (50 CFR 600.310). We acknowledge the thorough and comprehensive efforts of the Service to incorporate agency and public input preceding the guideline revisions through public meetings and workshops. These outreach efforts were critical to ensuring that many objections and concerns were aired before the draft revisions were published in the Federal Register.

The 2006 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) provided NMFS clear directions on how to end overfishing. Specifically, in section 302 managers are required to: “develop annual catch limits for each of its managed fisheries that may not exceed the fishing level recommendations of its scientific and statistical committee or the peer review process” (16 U.S.C. 1853, P.L. 109-479, MSA § 302(h)(6)) and to “establish a mechanism for specifying annual catch limits in the plan (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” (16 U.S.C. 1853, P.L. 109-479, MSA § 303(a)(15)). The reauthorized MSA also requires that managers must establish ACL and AM mechanisms in 2010 for stocks subject to overfishing and 2011 for all fisheries¹ (16 U.S.C. 1853 note). Because of this we feel that it is imperative that the proposed revisions to the NS 1 guidelines be finalized as soon as possible. Although we have some issues of concern, including some that are very significant, we found much to like in the proposed rule.

¹ Unless under an international agreement, or with a life cycle of 1 year and not being overfished (P.L. 109-479, sec. 104(b), MSA§303 note, 16 U.S.C. 1853 note).

Examples of positive portions of the proposed rule include a requirement to establish numeric annual catch limits for all stocks in a fishery, accounting for all fish mortality (landings and discards) in overfishing level determinations, ecological considerations, an annual or multiyear specification process, and accountability measures (most notably the payback measures for overfishing) for stocks that are overfished.

The guidelines have been significantly improved with the provision that “catch is the total quantity of fish, measured in weight or numbers of fish...includes fish that are retained for any purpose, as well as mortality of fish that are discarded” (§600.310(f)(2)(i)). PEG supports the inclusion of both landings and discards in catch, as well as the requirement that “all catch must be counted against OY” including bycatch, scientific research, and fishing (§600.310(e)(3)(v)(C)). Similarly, incorporating an estimate of bycatch in fisheries where data is limited is a necessary component that we urge NMFS to keep in the final regulations.

An additional enhancement is the guidance relating to ecological considerations for OY specification, specifically with regard to forage fish stocks, species interactions, and managing for higher biomass to protect marine ecosystems (§600.310(e)(3)(iv)(C)). Including considerations of environmental conditions such as pollution and changes in the amount of wetlands and other nursery habitats is an important component of the guidelines.

The proposed guidelines state that all stocks have an annual or multiyear specification process to set or adjust ACLs, as required by the MSA (16 U.S.C. 1853, P.L. 109-479, MSA § 303(a)(15)). This provides an opportunity for consideration of public and stakeholder comment, as well as the ability to adapt and improve the ACL mechanism to account for any errors or lack of progress in ending overfishing.

The guidelines are especially strengthened by the inclusion of recommendations regarding accountability measures (AMs). AMs are necessary to prevent ACLs from being exceeded and the extent and variety of AMs suggested by NMFS is appropriate given the diversity of fisheries. We especially support the recommendation that AMs address “both the frequency and magnitude of overages and correct the problems that caused the overage in as short a time as possible” (§600.310(g)(1)). We also support the various types of AMs suggested, including inseason AMs (fishery closures, gear changes, bag limits, etc), AMs for when ACL is exceeded (inseason AM adjustments, overage adjustments, etc), and AMs based on multi-year averages for fisheries with insufficient annual data or highly variable catch (§600.310(g)(2-4)). NMFS must keep these specifications in the final guidelines.

While we are generally supportive of the proposal, we do have a number of significant concerns and recommended changes that we feel are critical for these regulations to fully meet the legal requirement to end overfishing.

1. NMFS should require buffers, simplify the limit/target framework, and eliminate ACTs

The proposed guidelines state that “Councils should take an approach that considers uncertainty in scientific information and management control of the fishery” (§600.310(b)(3)) and recommends that both uncertainty in the ability to constrain catch and in estimating catch amounts be included in management uncertainty (§600.310(f)(6)(i)). We support the inclusion

of buffers between the various targets and limits and the consideration of different types of uncertainty. These buffers allow scientific and management uncertainty to be accounted for so that there is a lower risk of overfishing and a higher probability of successfully managing catch levels. However, it is necessary that NMFS *require* the inclusion of a buffer or buffers that address scientific and management uncertainty due to the large margin of error and degree of uncertainty associated with many fisheries estimates and catch controls.

To ensure that no overfishing occurs, NMFS recommends a three step approach to setting limits and targets, which includes an overfishing level (OFL) corresponding to maximum sustainable yield (MSY), an acceptable biological catch (ABC) set at or below the OFL to account for scientific uncertainty, an annual catch limit (ACL) set at or below the ABC recommended by the Science and Statistical Committee (SSC), and an annual catch target (ACT) set at or below the ACL to account for management uncertainty (§600.310(f)(1)).

$$\text{OFL} \geq \text{ABC} \geq \text{ACL} \geq \text{ACT}$$

Despite suggesting that management and scientific uncertainty be accounted for with buffers, this structure could allow managers to set the target equal to the limit (OFL=ACT), increasing the risk of continued overfishing, especially as none of the buffers are required. Given the uncertainty in fisheries science and management, it is essential to incorporate estimates of scientific and management uncertainty in the determination of catch limits and targets so that there is a high probability of ensuring no overfishing. NMFS should make buffers and the consideration of uncertainty mandatory, and remove the ability to set the target equal to the limit. That means that the ABC must be less than the OFL; the target must be less than the limit.

However, creating a new target reference point (ACT) is unnecessarily complicated and could be an impediment to effective implementation of the MSA's requirements to establish ACLs that end overfishing. The objective of managing to ensure no overfishing can be accomplished with a simplified yet effective framework. Therefore, PEG recommends that NMFS set up the framework as follows:

- SSC sets an ABC below the OFL (determined from the stock assessment). The ABC must be less than the OFL and must incorporate both scientific uncertainty and management uncertainty. The Council then sets the ACL based on its SSC's fishing level recommendation (ABC), following MSA's mandate not to exceed this level. Councils may set the ACL less than the ABC to account for relevant social, economic, and ecological factors as specified for the determination of OY.

$$\text{OFL} > (\text{management and scientific uncertainty buffer})\text{ABC} \geq \text{ACL}$$

Another option could be:

- SSC sets an ABC below the OFL (determined from stock assessment). The ABC is necessarily less than the OFL to account for scientific uncertainty. The Council then sets the ACL based upon the SSC's ABC recommendation. The ACL is necessarily lower than the ABC to account for management uncertainty and other relevant factors, as detailed in 600.310(i).

$$\text{OFL} > (\text{scientific uncertainty buffer}) \text{ABC} > (\text{management uncertainty buffer})\text{ACL}$$

Our proposals allow management and scientific uncertainty buffers to be either separate or in combination. The utilization of separate buffers allows a division of responsibilities among the SSC and the Council, which some argue is necessary given that the MSA specifically requires SSCs to recommend ABCs (which should incorporate scientific uncertainty) and Councils to set ACLs that cannot exceed the recommended ABC (which would incorporate management uncertainty as it applies to setting management measures), all of which is a sequential process. However, ABC, as a value that incorporates scientific uncertainty, would also depend on the degree of management uncertainty in the fishery. Thus, combining the buffers allows for quantification of the interrelated effects of management and scientific uncertainty. Such a combination of uncertainties considered in one buffer is successfully theorized and applied in Shertzer *et al.*'s paper², which we describe in more detail below. However the uncertainty is addressed, we feel that the ACT should be removed from the proposed rule, or at a minimum relegated to an optional management measure through the suggestion that the approach “may” be used. Our ability to end overfishing will be enhanced by a simple, elegant framework that everyone can understand and buy into.

We are aware that some managers are concerned that eliminating the ACT will result in AMs routinely being invoked as ACLs are exceeded more often. This concern can be addressed in two ways. First, if both management and scientific uncertainty are accounted for properly to ensure a high probability of the ACL not being exceeded, say 90 percent, exceeding an ACL will be a rare occurrence. Second, the trigger for an AM could be set so that if an ACL is exceeded by a small amount, say one percent or less, the AM is not triggered. In addition, there is considerable scope in how managers can devise AMs and triggering an AM does not necessarily have to mean shutting down a fishery (see section 3 for more on AMs).

Some are also concerned about how optimum yield (OY) would fit into the frameworks suggested above. OY, described as a fishery's yield that provides the greatest overall benefit to the nation based upon the MSY reduced for economic, social, and ecological factors (§600.310(e)(3)(i)(A)), can be incorporated into a simplified framework that does not include an ACT. The MSA does not explicitly define how OY relates to an ACL; it only stipulates that OY be less than MSY based on defined criteria including relevant economic, social, and economic factors determined by Councils. OY could be seen as equivalent to ACL, and both sources of uncertainty considered in setting it along with the other considerations mentioned above. This approach is compatible with the framework suggested by the Lenfest Working Group, which states that “no matter what the level of data, OFL is the best estimate of the overfishing level, ABC builds in the scientific and management (implementation) uncertainty, and ACL builds in the social, economic and ecological factors.”³ This accomplishes the same purpose as the proposed ACT (=OY) framework in a less complicated manner.

As described above, ACTs unnecessarily complicate the MSA requirements to establish a mechanism for setting annual catch limits. There are approaches to setting ACLs in such a way that there is a certain probability of success in managing to a catch level so that it is not

² Shertzer, K.W., M.H. Prager, and E.H. Williams. 2008. A probability-based approach to setting annual catch levels. *Fishery Bulletin* 106(3): 225-232

³ Report of the Lenfest Working Group on Annual Catch Limits. Pg. 9

exceeded. Shertzer *et al.* (2008) outline such a method with their probability-based approach to setting catch limits (PASCL)⁴. PASCL keeps the probability of overfishing below a preset level, while accounting for uncertainty in estimated stock status, future stock dynamics, the limit reference point, and management implementation, with a stochastic projection model. Given the stock and management uncertainties, the projection model chooses a trial ACL value, computes the fishing mortality rate that yields the ACL, computes the probability that fishing mortality will exceed the limit, and then uses an optimization algorithm to find the ACL that gives the probability that was preset as desirable. Then stock projections one year forward can be made for all years in consideration. The approach is flexible, uses common projection methods in stock assessment, can incorporate any source of uncertainty, and allows managers to set the level of risk that is acceptable⁵. In addition, examples of the approach show that more precise management allows for larger catch levels without an increase in overfishing.

With such an approach in mind, NMFS should recommend that Councils aim for a specific probability of successfully managing catch levels. While the proposed guidelines “identify limit and target reference points which should be set lower as uncertainty increases such that there is a low risk that limits are exceeded” (§600.310(b)(3)), they only suggest that the reference points “should” be set lower and they are not explicit about what constitutes a low risk. What constitutes a low risk must be clearly defined. PEG recommends NMFS establish a performance standard that defines low risk, as well as an acceptable probability of successfully managing catch levels of 90 percent.

A similar clarification is needed where NMFS suggests that “if a sector does not have timely inseason fisheries data, or has a history of annual overages, then a Council should establish a *large enough* (emphasis added) difference between a sector’s ACT and ACL to improve the probability that the sector-ACL and the stock’s ACL are not exceeded” (Preamble at 32535). What is a large enough difference? This is very subjective terminology that can be interpreted in a variety of ways to suit different interests. NMFS should stipulate that the “large enough difference” between the OFL and ABC, and other targets and limits should ensure a 90 percent probability of not exceeding the ACL. In addition, PEG would like to stress the importance of requiring control rules that are designed to make management more conservative as uncertainty increases (both scientific and management) and biomass declines (§600.310(f)(1)).

In the proposed rule, NMFS asks the public to weigh in on whether ACT control rules would be effective management tools and if NMFS should be flexible in allowing Councils to use AMs in lieu of ACTs to prevent ACL overages. This seems to imply that ACTs are just another type of AM used to manage fisheries to ensure they do not exceed the ACL. ACT controls rules would not be effective and unnecessarily complicate the setting of ACLs, as described above.

⁴ Shertzer, K.W., M.H. Prager, and E.H. Williams. 2008. A probability-based approach to setting annual catch levels. *Fishery Bulletin* 106(3): 225-232.

⁵ While this method is useful, it does have its limitations, especially with data-poor stocks. In cases where data is limited, there are other approaches. Restrepo *et al.* 1998 recommend that target catch be set at 75% of recent catch for stocks above Bmsy, 50% of recent catch for stocks below Bmsy but above their MSST, and only 25% of recent catch if below MSST and overfished (Restrepo *et al.* 1998).

Finally, we stress the importance of making the SSC or peer review an integral part of developing ABC control rules. As such, NMFS should *require* each Council to have an ABC control rule that involves its SSC, science advisors, or a peer review process so that science is followed to a larger degree (§600.310(f)(4)). PEG applauds and strongly supports that the “ABC will be set based on the level of scientific knowledge about the stock or stock complex and the scientific uncertainty in the estimate of OFL” (§600.310(f)(4)). PEG encourages the inclusion of the other factors listed for accounting for uncertainty, most notably assessment time lags and retrospective revisions (§600.310(f)(4)). In addition, we strongly recommend that ecological factors, along with uncertainty, must be considered in the determination of OY, especially forage fish stocks due to their importance as a food source in a healthy marine ecosystem. The proposed rule suggests that forage stocks be managed for higher than Bmsy biomass to protect marine ecosystems. However, such considerations should be required. (§600.310(e)(3)(iv)(C))

The proposed rule is on the mark in general with regard to ACLs, the inclusion of buffers, and the consideration of sources of uncertainty. However, as currently written, the guidelines are unnecessarily complicated and lack any requirement that scientific and management uncertainties are addressed. A simpler framework that required uncertainty buffers without ACTs could be just as effective and more understandable to the councils and the regulated public.

2. Stock complexes must be grouped by equivalent vulnerabilities as determined by a PSA process

We recognize that there are a large number of managed fish stocks where the data is so limited that developing stock specific ACLs is not possible. In those cases, lumping stocks with similar vulnerabilities to overfishing in complexes may be appropriate. However, we view this as an interim solution and we urge NMFS to vigorously pursue additional funding to gather stock specific information. We also note that there are methodologies, as discussed below in section 4 of our comments, which allow the establishment of ACLs with very limited data. Therefore, lumping stocks into a complex should be a last resort and not a long-term solution.

If there are no other alternatives to using complexes, PEG concurs with the proposed regulations that stock complexes should be “similar in geographic distribution, life history, and vulnerabilities to the fishery such that the impact of management actions on the stocks is similar” (§600.310(d)(8)). Specifically, we would like to emphasize that stocks should be grouped by similar vulnerabilities so that an ACL is not set on the basis of a healthy stock at the expense of a more vulnerable, weak stock. Thus, stock complexes must be required to consist of stocks with similar vulnerabilities and current stock complexes should be re-evaluated and if necessary reorganized to ensure that all stocks in the complex have similar vulnerabilities to overfishing.

Vulnerability should be determined based upon a quantitative method that is consistently applied. PEG advocates the use of the Productivity and Susceptibility Analysis (PSA), level 2 of

the Ecological Risk Assessment framework,⁶ as outlined and applied in the Annual Catch Limits Report from the Lenfest Working Group in September 2007. This approach categorizes and ranks species based on attributes of productivity and susceptibility to determine a stock's relative vulnerability. Such determinations are based on expert opinion.

Specifically with a PSA, scores from 1 to 3 are given for high to low productivity, and 1 to 3 for low to high susceptibility to overfishing, so that a highly vulnerable stock has low productivity (with an average score of 3) and high susceptibility to overfishing (with an average score of 3). Productivity is based upon life history characteristics, including generation time (age at sexual maturity), fecundity (number of offspring and frequency of breeding), and reproductive strategy (many young with less parental care or few young with more parental care), as well as recovery time from fishing activity, and the mean trophic level of the community food web. Susceptibility to overfishing is based upon the availability and catchability of the stock to fishing, survival after catch and release, habitat (including habitat stability, size, structure, and refuge from fishing pressure), and the effects of the type and number of gear on trophic level. Thus, a species such as the smooth hammerhead shark is highly vulnerable as it has low fecundity (low frequency of successful breeding), a considerable generation time, a slow recovery time from overfishing, and a reproductive strategy that results in few offspring, while it has high availability and catchability in fishing areas, has few stable habitats or refuges, and has low survival rates due to the types of fishing gear used.

Grouping stock complexes by equivalent vulnerability will reduce the risk of one stock being subject to overfishing due to the use of an indicator stock that is less vulnerable. While this concern is echoed by the proposed regulation that "if an indicator stock is used to evaluate the status of a complex, it should be representative of the typical status of each stock within the complex, due to similarity in vulnerability" (§600.310(d)(8)), we strongly recommend changing the "should be representative" to "must be representative" to make this a regulatory requirement. Indicator stocks must be equivalent or very similar to the vulnerabilities, based on some quantitative analysis such as a PSA analysis, of each of the other stocks in the complex as the goal is to not allow overfishing of any stock.

The proposed rule recommends that stock complexes 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" (§600.310(d)(8)). While we support the above provision, we emphasize the need to not rely solely on the indicator stock to evaluate the status of the stock complex. Specifically we concur and highlight the recommendation that "individual stocks within complexes should be examined periodically using available quantitative or qualitative information to evaluate whether a stock has become overfished or may be subject to overfishing" (§600.310(d)(9)). Stocks should be assessed regularly (at most a four year period, similar to the review period for ACLs and AMs) to ensure they do not become subject to overfishing and to determine if vulnerabilities change and the stock complex needs to be regrouped.

⁶ See Hobday, A.J., A. Smith, H. Webb, R. Daley, S. Wayte, C. Bulman and J. Dowdney. 2006. Ecological Risk Assessment for the Effects of Fishing: Methodology. Report R04/1072 for the Australian Fisheries Management Authority, Canberra.

PEG feels that specifying what is meant by a “regular basis” should also be incorporated in reclassification recommendations. Catch should be monitored on a regular (at most four year) basis to assess and reclassify stocks whose status has changed. This time period would be in line with the four year review period used as a performance standard for ACLs and AMs (§600.310(g)(3)).

3. Accountability measures

PEG is pleased with the extent and variety of accountability measures (AMs) proposed to prevent ACLs from being exceeded, including inseason AMs, AMs when ACLs are exceeded, and AMs based on multi-year averages when there is limited data. Inseason monitoring and management measures are critical to preventing overfishing and correcting for overages, which in turn ensures that stocks remain healthy and are able to rebuild to healthy levels.

We support the provision in the proposed rule that calls on managers to “determine as soon as possible after the fishing year if an ACL was exceeded” (§600.310(g)(3)) so that AMs are triggered to correct for the cause and consequence of the overage. This must be done on an annual basis so that overage adjustments can be applied in subsequent fishing years and so that fisheries can be monitored against the performance standard of not exceeding ACLs more than one in four years. If there is less than 75 percent success in managing to ACLs, the system must be re-evaluated. We support these provisions enthusiastically.

However, we note that in some cases, especially with recreational fishing, it is nearly impossible to make a determination soon after the close of a fishing season because the Marine Recreational Fisheries Statistics Survey (MRFSS) data does not become available until well into the next fishing season. In addition, because of the way that recreational fishing is managed, i.e., through bag and size limits without limiting the number of fishermen, recreational catch may vary widely because of external factors. For example, bad weather and high gas prices may keep fishermen off the water, while good weather and fishing may significantly increase the number of fishermen. Therefore, for recreational fisheries, we suggest the use of a three-year moving average of annual catch estimates to determine whether AMs should be instituted. This will moderate annual variability in recreational catches while still allowing annual evaluations and institution of AMs if necessary.

In addition, we support the guidelines related to AMs in data poor situations, specifically: “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. Evaluation of the moving average catch to the average ACL must be conducted annually. If the average catch exceeds the average ACL more than once in the last four years, then the ACL, ACT and AM system should be re-evaluated.” (§600.310(g)(4)).

One concern regarding the effectiveness of AMs is with stocks caught in state or territorial waters. While we understand the difficulty in managing a stock or stock complex that exists in multiple jurisdictions, we recommend that the Exclusive Economic Zone (EEZ) be closed when the federal portion of the ACL is reached *or* when the overall ACL is reached (whichever is

reached first). This will close a large loophole in interjurisdictional fisheries management and serve as a strong disincentive for states to ignore the negative impact of their regulations on federal managers.

4. A comprehensive method of managing data poor stocks must be included

As we discussed above, we have serious concerns about NMFS's focus on the use of complexes for the management of data poor fish stocks. The proposed guidelines suggest that "when data are insufficient to estimate reference points directly, Councils should develop reasonable proxies to the extent possible" (§600.310(l)). However, guidance on how to develop such proxies is lacking, highlighting the need for a comprehensive method of managing data poor fish stocks. We support the recommendation to increase efforts to gather necessary data on data poor stocks and suggest that in the interim an estimation method is used to determine sustainable catch in situations of limited data.

Specifically, the report of the Lenfest Working Group on Annual Catch Limits (Appendix D of that report) outlines a depletion-adjusted average catch approach to estimate sustainable yield when there is not much more data than catch time series. Using a historical catch average is difficult as past catches may not have been sustainable and resulted in fishing down biomass. Thus, as recommended in the approach described by Lenfest, an annual sustainable yield can be determined using a "windfall ratio" based on a catch time series and the associated reduction in abundance of a windfall harvest from biomass when the fishery was unfished to biomass at maximum sustainable yield (MSY). By accounting for such depletion and the cumulative number of harvests for each year in the catch time series, an annual sustainable yield can be estimated. While the approach is best for low natural mortality species, the method has, so far, proven robust in test cases.

An additional point of importance in the case of data poor stocks is the proper accounting of the degree of uncertainty in the estimates of MSY, F_{msy} , and B_{msy} . The uncertainty in these estimates must be incorporated into the buffer used in setting ACLs to reduce the risk of overfishing. Thus, compared to a data rich stock, a data poor stock may require a larger buffer between OFL and ABC to account for the extent of uncertainty in reference point estimates. There are several different sources of uncertainty including: measurement uncertainty (error in measuring catch, stock size, etc.), process uncertainty (variability in recruitment or environment), model uncertainty (misspecification of the model), estimation uncertainty (inaccurate fishing mortality rate), and implementation uncertainty (inability to achieve management target). Most of these uncertainties are reducible, so that with better data and effort the amount of uncertainty can be decreased, although natural variability due to the environment cannot be reduced. Uncertainty, if adequately accounted for in a required buffer(s), can work to reduce error in assessing and managing fish stocks and will improve the probability of success in meeting targets and limits, and in ending overfishing.

5. The weak-stock exception must be removed from the guidelines

An outstanding loophole that remains in the NS1 Guidelines is the “exceptions to requirements to prevent overfishing” (§600.310(m)), the so called “weak-stock exception.” NMFS must remove section (m) in its entirety from the guidelines as it authorizes overfishing under certain conditions, contrary to the clear intent of Congress.

Under this provision Councils have the power to conduct an analysis that provides justification of overfishing of a stock through an assessment of benefits compared between alternative management scenarios and a risk assessment of the stock complex falling below the very minimum size threshold required by law (MSST). While the section does specify that the stock cannot fall below the MSST more than 50 percent of the time, it also recognizes that the “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.” (§600.310(m)(3)).

The MSA clearly and resolutely declares that overfishing must be prevented and overfished stocks rebuilt (16 U.S.C. §§1801(a)(6), 1853(a)(1)(A), 1853(a)(15)). Thus, the “weak-stock exception” is in conflict with the MSA and the intent of Congress to end overfishing. There is no basis for the exception in the MSA and it is not in the best interest of the nation.

6. NMFS should provide more specific guidance on Ecosystem Component species and the time period for monitoring on a regular basis.

PEG is supportive of §600.310(d) regarding the classification of stocks in an FMP. It is critical to include both target and non-target stocks in a fishery, including economic and regulatory discards. To exclude any of these stocks would undermine efforts to end overfishing and rebuild depleted stocks, as fishing pressure may switch to non-target stocks if they are not considered in the setting of ACLs and it would preclude the consideration of all sources of mortality in the fishery.

PEG does have some concerns that the determinations of “ecosystem component (EC) species” might be abused as a loophole to skirt the requirements of reference point specification. The allowance that “*de minimis* amounts might occasionally be retained” leaves the potential for Councils to declare a stock an EC species, not needing status determination criteria (SDC) when in fact it is a non-target species that should be listed as “in the fishery” and subject to the requirements of reference points and management measures. NMFS should specify that EC species are not to be retained for any purpose or quantify what in their estimation is a “*de minimis*” amount, as this term is open to subjective interpretation.

NMFS rightly suggests that “a Council should consider measures for the fishery to minimize bycatch and bycatch mortality of EC species...to protect their associated role in the ecosystem” and “should be monitored on a regular basis...to determine changes in their status or their vulnerability”(§600.310(d)(5)). However, these are voluntary measures that could easily be overlooked or justified away. NMFS must make consideration of measures to minimize mortality of EC species a requirement and specify a regular time period for assessment and reclassification, which should be, at the most, a four year period (similar to the four year review period for ACLs and AMs (see §600.310(g)(3)). Such a requirement is supported by National

Standard 9 which emphasizes that bycatch be avoided to the extent possible and bycatch mortality minimized. The proposed guidelines reinforce the importance of the consideration of bycatch, stating that the “evaluation of stock status with respect to reference points must take into account mortality caused by bycatch” and “the estimation of catch should include the mortality of fish that are discarded” (§600.310(l)(5)). Strengthening the language with regard to bycatch and EC species and clarifying “*de minimis*” will help ensure that overfishing is prevented for all stocks and stock complexes as required by MSA.

7. Environmental concerns

PEG supports the proposal recommendation calling for the restoration of habitat in addition to curtailing fishing mortality if manmade environmental changes are partially responsible for a stock being classified as subject to overfishing (§600.310(e)(2)(iii)(C)). Similarly, PEG strongly supports the requirement that fishing mortality be constrained to allow rebuilding of a stock if environmental change results in a stock falling below MSST, while not respecifying SDC if long-term reproductive potential is unaffected (§600.310(e)(2)(iii)(A)). However, PEG is concerned that short-term environmental changes could be used to justify respecifying SDC.

In the proposed regulations, if long-term reproductive potential is affected by environmental changes, SDC *must* be respecified (§600.310(e)(2)(iii)(B)). While we are not against respecifying SDC when appropriate, we are concerned that this provision, which has no statutory basis, could be used to circumvent rebuilding targets with unsubstantiated claims of environmental shifts.

Environmental variability should be accounted for in scientific uncertainty determinations used to calculate ABC. There are natural fluctuations in fish stock abundance that need to be considered and Restrepo *et al.* (1998) note that environmental influences have a “low level of predictability.” Since fish stocks have adapted over time to climatic impacts on recruitment dynamics, fishery management policies must “attempt to preserve this adaptation.” They warn that “one should be cautious in interpreting a long run of good or poor recruitments as indicative of an environmentally-driven change in stock productivity”⁷. Since some SDCs assume a certain amount of stability in stock’s spawning- recruitment relationship and in the effects of a given level of fishing mortality, SDCs should only be respecified when there is substantial evidence and ability to conclusively measure a long-term relationship change in stock size and productivity. As such, catch levels must not be allowed to increase for rebuilding or depleted stocks based upon spurious assertions of climate shifts.

8. Rebuilding time targets

⁷ Restrepo, V.R., Thompson, G.G., Mace, P.M., Gabriel, W.L., Low, L.L., MacCall, A.D., Methot, R.D., Powers, J.E., Taylor, B.L., Wade, P.R., and J.F. Witzig. 1998. Technical Guidance on the Use of Precautionary Approaches to Implementing National Standard 1 of the Magnuson-Stevens Fishery Conservation and Management Act. Prepared for the National Marine Fisheries Service. *NOAA Technical Memorandum NMFS-F/SPO-##* July 17, 1998.

For an overfished stock or stock complex, the proposed guidelines require Councils to set a target rebuilding time, T_{target} , that is as short as possible and not to exceed 10 years unless otherwise amended due to stock biology, environmental conditions, or an international agreement (§600.310(j)(3)). We support this requirement along with the recommendation that “the rebuilding F should not be increased until the stock or stock complex has been demonstrated to be rebuilt” (§600.310(j)(3)). Similarly, we support the provision that suggests the rebuilding F should be reduced to no more than 75 percent of the maximum fishing mortality rate (MFMT) in a stock that has not been rebuilt by the maximum time allowed (T_{max}) (§ 600.310(j)(3)(ii)).

However, it is advisable to have stronger language (make the recommendations requirements by changing “should” to “musts”) and to be more precautionary in cases where the T_{target} is exceeded; not wait until the end of a rebuilding plan to reduce the fishing mortality rate. Fishing mortality rate should be reduced to 75 percent of MFMT or an appropriately revised rebuilding rate to ensure the stock will be rebuilt by T_{max} , whichever is the smaller of the two. If T_{max} is exceeded the fishing mortality rate should be reduced to 50 percent of MFMT or an appropriately revised rebuilding rate, whichever is smaller. Adjusting the fishing mortality rate along the rebuilding path reduces the risk of exceeding T_{max} , and potentially lessens the extent of a rate reduction that would be necessary if managers wait until the end of the rebuilding plan to adjust. Adopting these measures work to rebuild stocks as soon as possible and end overfishing.

In conclusion, we are pleased with many of the provisions in the proposed guidelines because they represent a good faith effort to finally end overfishing. As discussed in more detail above, simplifying the limit / target framework and removing loopholes will serve to achieve the ultimate objective and intent of the 2006 reauthorization of the MSA to ending overfishing.

Sincerely,

A handwritten signature in blue ink that reads "Lee R. Crockett". The signature is written in a cursive, flowing style.

Lee R. Crockett
Director
Federal Fisheries Policy