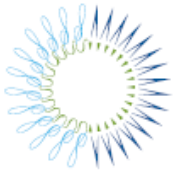

PEW ENVIRONMENT GROUP

May 29, 2009

Daniel T. Furlong
Mid-Atlantic Fishery Management Council
Room 2115 Federal Building
300 South New Street
Dover, DE 19904-6790

Re: Omnibus Amendment: National Standard 1 Requirements Scoping Comments

Dear Mr. Furlong:

Thank you for providing the opportunity to comment on the range of issues and management alternatives to be considered in the draft environmental impact statement (DEIS) for the Omnibus Amendment to address National Standard 1 requirements. On January 16, 2009, the National Marine Fisheries Service (NMFS) published the final rule revising the National Standard 1 Guidelines (50 CFR Part 300), which became effective February 17, 2009. The final rule provides guidance on the requirements of the reauthorized Magnuson-Stevens Fishery Conservation and Management Act (MSRA) which requires FMPs to include mechanisms to set annual catch limits (ACLs) and accountability measures (AMs) to prevent overfishing (16 U.S.C. §1853(a)(15)).

The Pew Environment Group (Pew) is pleased with the direction that the Mid-Atlantic Council is taking in response to these important new requirements. The proposed scoping document provides a useful overview and outline of the issues to be considered in the Omnibus Amendment and we commend the Mid-Atlantic Council for its efforts in this comprehensive approach. Please consider the following comments in response to the issues raised in the scoping document for the Omnibus Amendment.

Definition Framework (page 4 of the Omnibus scoping document)

Pew strongly supports the catch framework outlined in the scoping document on page 4. In order to ensure that there is no overfishing, buffers are needed between catch targets and limits. While the final rule allows councils to set ACL≤ABC≤OFL, it also requires that councils take an approach that considers *both* scientific and management uncertainty when setting catch limits and accountability measures (§600.310(b)(3)). Due to the inherent uncertainty in fisheries science and management, in order to ensure that overfishing does not occur or that rebuilding catch levels are not exceeded, in our interpretation catch levels must be set such that OFL>ABC>ACL. NMFS also feels that it is unlikely for these levels to be equivalent, as evidenced through the provision in the guidelines:

"*If a Council recommends an ACL which equals ABC, and the ABC is equal to OFL, the Secretary may presume that the proposal would not prevent overfishing, in the absence of sufficient analysis and justification for the approach*." (§600.310(f)(5)(i)).

Thus, the onus and burden of proof is on the Council to justify the lack of buffers in a fishery, because it is more than likely buffers are necessary. Only in rare circumstances — e.g. where there are perfect science, data, and management control of catch and bycatch — would a negligible buffer be allowed and even then the amount of scientific uncertainty that is irreducible would still necessitate a buffer when setting an ABC.

In our estimation, the uncertainty around catch estimates makes it almost certain that managing to a limit will result in it being exceeded. Therefore Pew emphasizes that the ACL must be less than ABC which must be less than OFL; these reference points ***cannot*** be equal or overfishing will occur due to the uncertainty inherent in fisheries science and management. The ABC ***must*** be reduced from the OFL based on the degree of scientific uncertainty, and the ACL ***must*** be reduced from the ABC based on the degree of management uncertainty. Both sources of uncertainty exist in the mid-Atlantic (see below for more detail).

In addition, catch is defined as the total quantity of fish taken in all fisheries and includes fish "retained for any purpose, as well as mortality of fish that are discarded" (§600.310(f)(2)(i)). This means that ABC and ACL must be based on catch, not just landings. The Council must make sure that all FMPs utilize TACs that include all catch including discards.

Various Methods for Calculating Acceptable Biological Catch (ABC) (page 5-8)

The final rule requires the Council to establish an ABC control rule based on scientific and statistical committee (SSC) advice that clearly articulates how ABC is determined from the OFL based on scientific uncertainty (§600.310(f)(4)). This scientific uncertainty includes uncertainty in the OFL estimate and other factors such as assessment time lags, retrospective patterns, and uncertainty in stock assessment results. It is important to note that NMFS revised the guidelines to make clear that all sources of scientific uncertainty be considered (not just uncertainty in the OFL estimate) and that this consideration and determination be explicit and transparent[1].

Specifically in the mid-Atlantic, scientific uncertainty should take into account the considerable uncertainty regarding discard mortality in recreational fisheries, most notably summer flounder where roughly 91% of catch is released, and increasing size limits means more and more fish are thrown back.[2] NMFS assumes a 10% discard mortality rate, meaning that in 2008 roughly 2.3 million summer flounder died as discards.[3] Furthermore, a 2006 National Research Council study on recreational fisheries survey methods stated that discard mortality rates are difficult to

[1] 50 CFR Part 600. Magnuson-Stevens Act Provisions; Annual Catch Limits; National Standard Guidelines; Final Rule. 74 F.R. 3192-3193. January 16, 2009.
[2] Coakley, Jessica. 2009. Summer Flounder Recreational Management Measures for 2009. Mid-Atlantic Fishery Management Council Memorandum.
[3] Species Profile: Summer Flounder, Positive Assessment Results Yield Higher Quotas, Atlantic States Marine Fisheries Council, excerpted from Fisheries Focus, Volume 17, Issue 7, September 2008, p. 2.

assess and that errors (such as misidentification or incorrect weight conversions) are common.[4] Thus, discard mortality is clearly an essential factor of scientific uncertainty that must be considered in setting ABCs.

In addition, for black sea bass and scup, a recent Data Poor Working Group[5] identified several areas of scientific uncertainty including recruitment, maximum age, survey variability, natural morality, discard estimates, and the absence of older fish in the surveys. Further, for black sea bass, uncertainty in managing a protogynous species that change from female to male was highlighted, as well as the lack of fit between the model and survey estimates which provides significant uncertainty about stock status. In fact, the Data Poor Working Group review panel recommended "the SSC recognize and allow for the sizeable uncertainty in stock status when establishing catch limits" for black sea bass and supported the change to overfishing status.[6] All these factors should be considered in setting an ABC and are not all exclusive to black sea bass and scup. The SSC should provide input on what should be included in the terms of reference for stock assessments so that an analysis of the scientific uncertainty and other necessary information is provided to the SSC to enable them to make decisions regarding ABC based on the best scientific information available.

Pew supports the Council's reliance on the SSC in developing and implementing ABC control rules, as stated on page 5. The SSC is required to provide advice to the Council in developing ABC control rules and is to provide the ABC recommendation to the Council based on the application of the final control rule. (See 16 U.S.C. §§ 1952(g)(1)(B), 1852(h)(6), 50 C.F.R. § 600.310(f)(4)). If the SSC recommends an ABC that differs from the level calculated by the control rule, it must be more conservative than the calculated ABC. This might occur if the SSC feels that additional scientific uncertainty needs to be considered in setting the ABC that the established control rule does not address, thus, the ABC would be lower than the level calculated.

ABC: Tier-based approach applied to all managed resources (page 6)

Pew feels the development of a tier-based approach to setting ABC, as proposed in the scoping document on page 6, would be the most appropriate approach. Tiers are a classification system that categorizes stocks by specific criteria. A certain control rule would apply to each tier.

Specifically, Pew recommends developing tiers similar to the framework outlined on Page 7 of the scoping document with each tier representing a different level of complexity of stock assessment. Within each tier there should be the three levels of biomass status as outlined: above Bmsy (biomass target), between Bmsy and MSST (overfished threshold), and below MSST (overfished). Each of these levels would have a different control rule, with more conservative control rules as the biomass of the stock declines. For overfished stocks, the

[4] Review of Recreational Fisheries Survey Methods, Committee on the Review of Recreational Fisheries Survey Methods, National Research Council of The National Academies (NRC), April 2006, p. 22.
[5] Northeast Data Poor Stocks Working Group. 2009. The Northeast Data Poor Stocks Working Group Report, December 8-12, 2008 Meeting. Part A. Skate species complex, Deep sea red crab, Atlantic wolfish, Scup, and Black sea bass. US Dept Commerce, Northeast Fisheries Science Center Reference Document 09-02; 296 p.
[6] Miller, T., Muller, R., O'Boyle, B., and A. Rosenberg. 20 January 2009. Report by the Peer Review Panel for the Northeast Data Poor Stocks Working Group.

Council *must* set an ABC that is consistent with the fishing mortality rates in the rebuilding plan (600.310 (f)(3)(ii)). It is not enough to end overfishing; stocks must be rebuilt as well. Thus, Pew strongly agrees with the recommendation on page 6, paragraph 3 in the scoping document that ABC control rules be "directly linked to stock size through linear or stepwise relationships…which become more restrictive as the population approaches the threshold."

As posed on page 6, Pew also recommends that the Council use productivity and susceptibility analyses (PSA) to assess the vulnerability of each population to overfishing and use this risk determination to inform decisions regarding developing control rules. The vulnerability analysis should be conducted by the SSC for all stocks in the fishery including non-target stocks caught as bycatch. The enclosed Lenfest Ocean Program report describes the PSA methodology and provides preliminary rankings for a few mid-Atlantic stocks. NMFS also provides technical guidance on the use of PSA. Such a vulnerability analysis would be used when grouping species into complexes, and in making the important determinations of what species should be considered in a fishery and what species should be designated as ecosystem component species. It is likely that such assessments would require FMPs to be amended to include more species, moving away from single-species management to a broader, more ecosystem-based approach that more accurately addresses the realities of the fishery and its impacts.

Risk Policy

A vulnerability analysis would also provide useful information for the Council to decide on an acceptable level of risk when setting catch levels (i.e. an overall risk policy). If fish populations are highly vulnerable to overfishing, the Council should establish a more risk adverse policy that has a higher probability of preventing overfishing. Having a pre-determined risk policy will facilitate the catch setting process and reduce discord concerning catch recommendations. The Council recently received a presentation from staff regarding developing a risk policy, particularly with respect to new requirements to account for all sources of scientific and management uncertainty in setting ACLs/AMs. Pew applauds the Council for addressing this important issue head on and strongly encourages the Council to develop such a policy. Having an explicit risk policy ensures that an acceptable level of risk is considered in setting ABCs and ACLs.

ABC: Single-species approaches

Pew urges the use of a probability-based approach, outlined on page 8, where possible. In this approach ABC is reduced from OFL based on the probability of achieving the target fishing mortality rate given the level of scientific uncertainty in the estimates and stock assessment. The probability-approach should be used for the higher tier levels where stock assessments give enough information to make the approach feasible. The default probability should be 75%, that is, ABC should be set so that there is at least a 75% probability of not exceeding the limit fishing mortality rate. This probability level should increase as biomass declines; thus, for stocks in an overfished status this probability should be higher to ensure that the rebuilding fishing mortality rate is achieved.

Pew notes that not all species have the data necessary to do a probability-based approach. In data limited cases or lower tier levels (indicating less complex stock assessments), a percentage-

based approach is acceptable. ABC would be reduced from OFL based on a fixed percentage; we recommend 75% of OFL as a default. This percentage should decline as the biomass of the population declines, so the ABC for an overfished stock should be set more conservatively. The 1998 technical guidance from Restrepo *et al*. recommended that target catch be at 75%, 50%, or 25% of the limit for stocks above Bmsy, between Bmsy and the overfished threshold, and overfished, respectively[7]. Following this model, the ABC control rule would specify ABC as 75% of OFL for stocks above Bmsy, 50% of OFL for stocks between Bmsy and MSST, and 25% of OFL for overfished stocks.

Various Methods for Establishing Annual Catch Limits (ACL) (page 8)

Similar to the discussion of ABC control rules, Pew strongly recommends the use of a probability-based approach to setting ACL, outlined on page 9. ACLs would be reduced from ABCs based on the probability of achieving the target fishing mortality rate given the degree of management uncertainty or implementation error. ACL should be set based on a 90% probability; this gives a high level or assurance that legally prohibited overfishing does not occur. Congress clearly intended there be an end to overfishing and that depleted stocks be rebuilt, as seen through its mandates in the MSRA (P.L. 109-479), thus there must be a high probability of successfully meeting this objective. While Courts have found that the legal floor is a 50% probability, we find this unacceptable as a matter of policy and regulation. Such a standard amounts to a failing test score, as half the time the undesirable outcome will occur. Thus, a 90% probability or higher is more appropriate.

For stocks with limited data, a percentage-based approach to setting ACLs is acceptable, in which case the default control rule would be ACL equal to 75% of ABC, as described on page 9 in the scoping document. As biomass declines, this percentage should be reduced. This is similar to the recommendations for an ABC control rule previously described. In addition, greater or lesser scientific or management uncertainty should result in a larger or smaller buffer between ABC and OFL.

As a rule, ACLs should be set ***below*** ABCs to account for management uncertainty. Pew recommends assessing management's effectiveness historically in determining the level of management uncertainty so that fisheries with less management control have a larger buffer between ABC and ACL to ensure that quota is met.

One instance where this is of particular importance is in the summer flounder recreational fishery. There has been a long history of quota overages in the recreational fishery and the season has been reduced and minimum size limits increased to try to limit mortality. The Council has considered readjusting the outdated (1998) baseline upon which the quota is divided among the states to better reflect current effort. However, the current state-by-state conservation equivalency measures do not allow for an accurate baseline to be determined and either

[7] Restrepo, V.R., et al. 1998. Technical Guidance on the Use of Precautionary Approaches to Implementing National Standard 1 of the Magnuson-Stevens Fishery Conservation and Management Act. NOAA Technical Memorandum NMFS-F/SPO-##.

coastwide or regional equivalency measures would be necessary to establish a new baseline.[8] Once a more accurate baseline is established, the level and frequency of quota overages should be reduced. The current, outdated baseline presents significant management uncertainty and highlights the need for an adequate buffer between the ABC and ACL to account for ineffectiveness in meeting quotas with bag limits and minimum size limits in this fishery. Another source of significant management uncertainty is the lack of alignment of federal and state management measures. While this is an issue that has been acknowledged and is being worked on by the Council, it is a source of uncertainty that must be considered in setting the ACL and devising ACL control rules.

Achieving Optimum Yield

ACLs should also be set so that optimum yield is achieved, as per NS1's mandate that *"conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield (OY) from each fishery*" (§600.310(a)). Thus, a principal focus of management must be to prevent overfishing and rebuild stocks, so that conservation drives the process, but beyond this, management must aim to achieve OY on a continuing basis. OY is the yield that provides the "greatest overall benefit to the Nation" and is reduced from MSY by economic, social, and ecological factors (§600.310(e)(3)). While current science may make it difficult to quantify such factors with confidence, they must be addressed in OY specification. The final rule provides several examples for each of the three factors an FMP must address (§600.310 (e)(3)(iv)).

While all the factors are important, we highlight the need to adequately consider ecological factors, stressing that this consideration must be beyond just predator-prey interactions and include impacts on forage fish stocks and other species (marine mammals, birds, other fisheries). We strongly support the rule's recommendation to set OY farther from MSY according to the degree of uncertainty in estimates of MFMT, biomass, and management controls (§600.310 (e)(3)(v)). The Council should adopt ACL control rules that address the achievement of OY, which means that ecological, economic, and social factors must be considered and accounted for. OY must account for all catch, including all fishing mortality, bycatch, discards, and scientific research (§600.310(e)(3)(v)(C)).

Various Approaches to Establishing Accountability Measures (AMs) (page 9)

The Council must carefully craft appropriate AMs that account for management uncertainty. Specifically, AMs should consider the ability of managers to constrain catch (including historical performance and time lags) and uncertainty in quantifying true catch (§600.310(f)(6)(i)). AMs must be triggered as soon as possible after the end of a fishing year if an ACL is exceeded, but proactive inseason AMs are preferred.

AMs should, for the most part, be proactive and designed to prevent exceeding the ACL. Reactive AMs, such as deducting overages from the following year's quota are still necessary to

[8] Summer Flounder Monitoring Committee Meeting Summary. 2009 Recreational Specifications. November 18, 2008 meeting, Philadelphia, PA.

develop in case there is an overage, but the system should be designed so that this is a rare occurrence. Being proactive ensures the least amount of damage, both to fishermen and to fish populations.

AMs: Recreational Fisheries (page 10)

With recreational fisheries it is nearly impossible to make a determination whether an ACL has been exceeded soon after the close of a fishing season because the Marine Recreational Fisheries Statistics Survey 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.

Since recreational fisheries lack the timely data necessary to have accountability measures based on annual overages or to have inseason closures, the fisheries should be evaluated based on a multiyear period. Using a three year moving average of annual catch estimates to determine whether AMs should be instituted will moderate annual variability in recreational catches while still allowing annual evaluations and institution of AMs if necessary.

Pew recommends evaluating recreational fisheries on the basis of a three year moving average, meaning that average catch is compared to average ACL over a three year period and accountability measures triggered if this average catch is exceeded, such as adjustments to bag or size limits or season length. This is also in line with the NS1 guidelines (§600.310(g)(4)).

Furthermore, if, as recommended, management uncertainty is sufficiently considered in the setting of the ACL, then we see no need for an additional buffer through the setting of an ACT ***as long as*** there are inseason accountability measures (such as bag and size limit adjustments to constrain catch as the quota limit is approached) designed to ensure there is a high probability the ACL is not exceeded. However, given the lack of effective inseason accountability measures in recreational fisheries (i.e. summer flounder as described in above), and the lack of inseason closures and real time data in recreational fisheries, in some fisheries (such as summer flounder) an ACT would be necessary to ensure the ACL is not exceeded. The NS1 guidelines support such action: "*For fisheries without inseason management control to prevent the ACL from being exceeded, AMs should utilize ACTs that are set below ACLs so that catches do not exceed the ACL*" (§600.310(g)(2)).

AMs: Commercial Fisheries (page 11)

While some commercial fisheries already have AMs, including inseason closures and overage deductions in subsequent fishing years, all plans should have them. As stated earlier, AMs should be proactive for the most part. Pew supports the recommendations in the scoping document, including inseason closures and trip limit adjustments to prevent ACLs from being exceeded. Overages should be deducted 100% in the next year, although this should be rare given the proactive measures in place.

Performance Review (page 11)

Pew supports the recommendation to develop a periodic formal review conducted by the SSC and the Council to review and revise ABC and ACL control rules on a regular basis. The reason for poor performance, if found, must be determined and fixed, which may include revising the ABC and ACL control rules or accountability measures.

A formal periodic review process should be established that assesses control rule performance based on the standard that if the target is exceeded more than once in the past four year period, the system should be revised. This is consistent with the NS1 guidelines which state that the whole ACL/AM system should be re-evaluated if an ACL is exceeded more than once in the last four years (§600.310 (g)(3)).

In order to assess this performance standard, there should be a review every two years. If the target has been exceeded in the first year and again in the second, then the four years standard would be violated and the system would need to be re-evaluated. Being proactive and keeping on top of performance objectives ensures the system functions effectively and minimizes the potential damage from misspecifications.

Conclusion

Pew appreciates the comprehensive approach set forth in the scoping document and the seriousness with which the Council is addressing the NS1 requirements pertaining to annual catch limits and accountability measures. As noted above, due to the inherent uncertainty in fisheries science and management, and particularly the scientific and management uncertainty present in mid-Atlantic fisheries, the Mid-Atlantic Council must establish sufficient buffers between OFL and ACLs and ABCs and consider appropriate levels of risk and vulnerability when developing ABC and ACL control rules. We strongly support the framework that the Council has proposed in the scoping document for the Omnibus Amendment; specifically that the ABC control rule is devised to account for scientific uncertainty and the ACL control rule accounts for management uncertainty. Additionally, we urge the Council to set appropriate accountability measures so that there is a high probability of successfully managing fishing mortality and a low risk of overfishing.

The Mid-Atlantic Council's considerable effort to address the NS1 requirements, end overfishing, and rebuild depleted fish populations puts it ahead of the curve in relation to many of the other regional councils. We hope that such promising trends continue so that the Mid-Atlantic can serve as an example for other regions. We look forward to further progress and collaboration.

Sincerely,

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