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**RE: Comments of the Natural Resources Defense Council on the National Standard 1
Guideline; Annual Catch Limits proposed rule**

September 20, 2008

Dear Mr. Millikin:

Thank you for this opportunity to provide comments on NOAA's redrafting of the NS 1 guidelines to meet and implement the congressional mandate stipulated in MSRA 2006. Congress was very clear in the MSRA (16 U.S.C. § 1853 (a)(15)) that any fishery management plan, whether prepared by the councils or by the Secretary, must establish a mechanism for specifying annual catch limits "at a level such that overfishing **does not occur** in the fishery, including measures to ensure accountability" (emphasis added). Continued and sometimes significant overfishing – both for healthy and overfished stocks and fisheries – has been a significant impediment to sustaining and rebuilding these stocks and fisheries in the past. In fact, according to Rosenberg et al. 2006, cited at the end of this document, nearly half of the fish stocks managed under rebuilding plans are continuing to experience overfishing. A key purpose of the revised NS 1 guidelines must be to articulate effective means to implement 16 U.S.C. § 1853 (a)(15) such that overfishing truly does not occur.

Overall, the MSRA retains and builds upon key mandates of the underlying law regarding overfishing and rebuilding overfished fisheries. Specifically, the MSRA clearly mandates that overfishing must be prevented and ended, "such that overfishing does not occur", including for fisheries managed under rebuilding plans, that accountability measures must be put into place for specified annual catch limits, and that rebuilding must occur in as short a time as possible, not to exceed 10 year, except in limited circumstances provided by the Act. The proposed rule falls short of the MSRA's clear directives and related Congressional intent in all three of these categories: overfishing, accountability, and rebuilding. Each category is discussed below, in addition to a more detailed portion of the rule concerning the relationship of status determination criteria to environmental change, along with comments to improve rule language for each category. In addition to these comments, we believe that NMFS should have conducted a full NEPA analysis for this proposed action and that the determination to apply a categorical exclusion, as discussed in 73 Federal Register at 32528, is not appropriate.

Overfishing

➤ **Management measures must ensure that overfishing does not occur**

The 2006 MSRA included provisions to clarify and enhance the MSRA’s mandate to bring an immediate end to overfishing. Specifically, 16 U.S.C. § 1853 (a)(15) directs fisheries managers to “... establish a mechanism for specifying annual catch limits ... at a level such that overfishing does not occur in the fishery ...” (emphasis added). In addition, rebuilding programs must “... end overfishing immediately upon implementation” (16 U.S.C. § 1854(e)(3)&(4)).

The draft guidelines fail to comply in two significant respects with this renewed Congressional directive to immediately end overfishing. First, they give a loophole (provided in Part 600 m) allowing councils to bypass the requirement to end overfishing. This concern about enabling end-runs around the MSRA’s prohibition of overfishing also extends to the use of indicator stocks in a stock complex. Second, weak language on the determination of ACLs and ACTs will likely perpetuate, not eliminate, the failed management systems and chronic overfishing problems targeted by the 2006 amendments.

Preventing and ending overfishing (“such that overfishing does not occur”) would require changes to the following sections:

- A) Section 600.310 (m): *Exceptions to requirements to prevent overfishing.*** Exceptions to the requirement to prevent overfishing could apply under certain limited circumstances. Harvesting one stock at its optimum level may result in overfishing of another stock when the two stocks tend to be caught together (This can occur when the two stocks are part of the same fishery or if one is bycatch in the other’s fishery).

Comment: The co-occurrence of fish in space and time combined with the indiscriminate nature of harvest technology make multi-species fisheries¹, and bycatch in single species fisheries, the norm. Consequently, the above exception applies to a substantial proportion of managed fisheries and introduces a major loophole into MSRA’s mandate to end overfishing, an outcome which has no legislative basis. Although the draft provides conditions on council’s authority to utilize this exception, the conditions are vague and not adequately stringent.

It is important to recognize that the co-occurrence of fish species underlies the most vexing overfishing problems in the United States today (e.g., windowpane, winter, and yellowtail flounder in New England, red snapper in the Gulf, and sharks in pelagic long-lines) and was an important reason for failing to end overfishing in the years following the Sustainable Fisheries Act (SFA) of 1996. It was clearly the intent of Congress to tackle these fundamental conflicts when they renewed and strengthened their directive to end overfishing in 2006. Efforts to side step the problem of co-occurrence and continued overfishing will only delay inevitable necessary mitigation measures and will likely increase the eventual ecological, social, economic costs (Shertzer and Prager, 2007).

¹ Examples of multi-species fisheries include the groundfish (19 stocks) and small mesh fisheries (3 stocks) in New England; summer flounder, scup, sea bass and squid, mackerel, butterfish in the Mid-Atlantic; mackerel, various shrimp, and the snapper-grouper complex (93 species) in the South Atlantic and the Gulf; and groundfish in the Pacific (82 species) and North Pacific (14+ species).

Accordingly, to comply with the MSRA mandate to stop overfishing, this section must be eliminated.

B) Section 600.310 (d)(9): *Indicator stocks.* An indicator stock is a stock that is used to help manage and evaluate stocks that are in a stock complex and do not have their own SDC. 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. If the stocks within a stock complex have a wide range of vulnerability, they should be reorganized into different stock complexes that have similar vulnerabilities; otherwise the indicator stock should be chosen to represent the more vulnerable stocks within the complex. In instances where an indicator stock is less vulnerable than other members of the complex, management measures need to be more conservative so that the more vulnerable members of the complex are not at risk from the fishery.

Comment: Research demonstrates that there is considerable risk of overfishing stocks in a complex when using indicator species to establish SDCs (e.g., Shertzer and Williams, 2008). Consequently, this method should be used only when absolutely necessary (i.e., when sufficient data are lacking to generate species-specific SDCs). When this method must be used, the most vulnerable stock in the complex must be chosen as the indicator species to ensure overfishing does not occur (Shertzer and Williams, 2008). NMFS should provide guidance on evaluating and ranking vulnerability. This approach will both help ensure that “overfishing does not occur” and increase incentives to obtain much needed data for species in stock complexes.

Accordingly, this section should be revised as follows:

Section 600.310 (d)(9) *Indicator Stocks.* An indicator stock is a stock that is used to help manage and evaluate stocks that are in a stock complex and do not have their own SDC. This method should be used only when sufficient data are lacking to generate species-specific SDCs. If an indicator stock is used to evaluate the status of a complex, it must be the most vulnerable stock in that complex. If the stocks within a stock complex have a wide range of vulnerability, they should be reorganized into different stock complexes that have similar vulnerabilities. A formal vulnerability analysis, taking into consideration life history and estimates of productivity, must be conducted to rank the vulnerability of stocks in the complex.

C) Section 600.310 (d)(4): “Non-target species” and “non-target stocks” are fish caught incidentally during the pursuit of target stocks in a fishery, including “regulatory discards” as defined under Magnuson-Stevens Act section 3(38). They may or may not be retained for sale or personal use. Non-target species may be included in a fishery and, if so, they should be identified at the stock level.

Comment: In defining non-target species, the draft guidelines are ambiguous about whether or not non-target species are contained within managed fisheries. Although Part Section 600.310 (d)(2) states, “stocks in a fishery include: (1) target stocks; (2) non-target stocks that are retained for sale or personal use; and (3) non-target stocks that are not retained for sale or personal use and that are determined to subject to overfishing or approaching overfished ...”, Part 600.310

(d)(4) in fact details that “Non-target species *may* be included in a fishery” [emphasis added]. These statements could be interpreted to be contradictory.

Accordingly, Part 600.310 (d)(4) should be re-written to be consistent with the more inclusive definition in Part 600.310 (d)(2).

D) Sections: 600.310 (f)(1) Introduction. “... First, ABC is set below the OFL to account for scientific uncertainty in calculating the OFL; second, ACL is set at an amount *not to exceed* the ABC; and third, ACT is set at an amount *not to exceed* the ACL to account for management uncertainty in controlling a fishery’s actual catch.” **600.310 (f)(2)(v) Annual catch target (ACT)** is an amount of annual catch of a stock or stock complex that is the management target of the fishery. A stock or stock complex’s *ACT should usually be less than its ACL* and results from the application of the ACT control rule. **600.310 (f)(3) Specification of ABC.** *ABC may not exceed OFL and is recommended to be reduced from OFL to account for scientific uncertainty in the estimate of OFL. This process should establish an ABC control rule ...*” **600.310 (f)(4) ABC control rule.** ...The ABC control rule should clearly articulate how far below the OFL, or OFL proxy, 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. The ABC control rule *should* take into account uncertainty in factors such as stock assessment results...**600.310 (f)(6) ACT control rule.** ... each Council *should* establish ACT control rules for setting the ACTs. The ACT control rule *should* clearly articulate how far below the ACL the target will be established based on the amount of management uncertainty associated with harvest **600.310 (f)(6)(i) Determining management uncertainty.** Two sources of management uncertainty *should* be accounted for in establishing the ACT ...**600.310 (f)(7)(i) Relationship of OFL to MSY.** ... ABC *is recommended* to be set below OFL ... (emphasis added)

Comment: The above sections outline the central mechanism by which overfishing will be controlled - the specification of annual catch levels. The recommended process is, arguably, the most important feature of the rule because its efficacy will determine how much overfishing occurs and to what extent in-season and post-season accountability measures will be needed.

The guidelines outline a three step procedure whereby an allowable biological catch (ABC), an annual catch limit (ACL), and an annual catch target (ACT) are specified. The draft guidelines recommend that scientific uncertainty be accounted for by integrating a buffer between the overfishing limit (OFL) and the ABC and by accounting for management uncertainty by introducing a buffer between the ACL and ACT. In summary, the agency recommends the following catch-setting framework: $OFL(=MFMT) \geq ABC$ usually = $ACL \geq ACT (=OY)$.

While the proposed rule recognizes the need to account for uncertainty to reduce the risk of overfishing to acceptably low levels (Rosenberg and Restrepo, 1994; Caddy and Mahon, 1995; ICES, 1997; Restrepo et al., 1998; Rosenberg et al., 2007), it then fails to actually include any mandatory mechanisms to account for such uncertainty. This is a major flaw of the proposed rule. The key element of the proposed process - the use of buffers between limits and targets - remains discretionary. This weak language will very likely perpetuate the failed management systems of past decades, as councils choose to continue to “manage on the edge” by setting

annual catch targets at the overfishing limits (ACT/OY = OFL) or by incorporating inadequately small buffers.

The recognition that there is a high risk of depleting fisheries resources when decisions are based on uncertain information, led to the conception of the precautionary approach to fisheries management in the mid 1990s (e.g., Caddy and Mahon, 1995; ICES, 1997). Key elements to the precautionary approach are the explicit inclusion of uncertainty in fisheries management and the use of limit reference points (Quinn and Collie, 2005). International agreements such as the UN Fish Stock Agreement were the first to formally adopt such approaches in the 1990s, and the 1996 amendments to the MSRA marked the beginning of precautionary management in the United States. For example, the National Standard Guidelines in 1998 recommended that the fishing target be set “safely below” the limit. In addition, the technical guidelines outlined the use of precautionary control rules, recommending a default fishing mortality target 25% below the limit (MFMT) (Restrepo et al., 1998).

In the decade that followed, few of the councils adopted the approach outlined in the 1998 technical guidance, chronic overfishing persisted, and Congress responded by strengthening the mandate to end overfishing (MSRA, 2006). The draft rule threatens a repeat of this history. As the 1998 guidelines did, the proposed rule states the need to account for uncertainty and to set targets below limits. However, as in 1998, the agency falls short – and fails to satisfy Congress’ clear recent directive to finally put an end to overfishing – by allowing the catch-setting framework to, again, be voluntary. As a result, we are likely to see ‘more of the same’ in terms of catch specification.

The proposed rule should use the word “must” when referring to an action necessary to fulfill the requirements of the statute. In the national standard guidelines, “must” “denotes an obligation to act; it is used primarily when referring to requirements of the Magnuson-Stevens Act, the logical extension thereof, or of other applicable law.” 50 C.F.R. Section 600.305(c)(1). Because the use of buffers between limits and targets is necessary to reduce the risk of overfishing to acceptably low levels (Caddy and Mahon, 1995; ICES, 1997; Restrepo et al., 1998; Rosenberg et al., 2007), the word “should” is inappropriately applied in the proposed rule to the catch-setting framework.

Accordingly, Sections 600.310 (f)(1)- 600.310 (f)(7) should be re-written to require scientifically derived buffer(s) to account for both scientific and management uncertainty. When sufficient data exist, a probabilistic approach to determining buffer size should be required (e.g., Prager et al., 2003; Shertzer et al., 2008). In data poor circumstances, the rules should require larger buffers as uncertainty and risk increase (e.g., Rosenberg et al., 2007). Specifically, if the proposed catch-setting framework is retained, the rule should replace many of the “shoulds” with “musts”.

E) Section 600.310 (f)(2)(vi): *ACT control rule* means a specified approach to setting the ACT for each stock or stock complex such that the risk of exceeding the ACL due to management uncertainty is at an *acceptably low level*. (emphasis added)

Comment: National Standard Guidelines should explicitly define the maximum acceptable risk of overfishing which is consistent with Congress’ strong directive to set annual catch limits “such that overfishing does not occur”.

In this regard, the often applied probability of 0.50 (i.e., as likely to fail as to succeed) is legally insufficient. Courts have required that “to meet its statutory and regulatory mandate, the agency must have a ‘fairly high level of confidence that the quota it recommends will not result in an F greater than the target F.’” NRDC v. Daley, 209 F.3d 747, 754 (D.C. Cir. 2000) (quoting Fishermen’s Dock Coop., Inc. v. Brown, 75 F.3d 164, 169-70 (4th Cir. 1996). See also Coastal Conservation Ass’n v. Gutierrez, 512 F. Supp.2d 896, 901 (S.D. Tex. 2007) (“Defendants must have a ‘fairly high level of confidence’ the regulatory provision they recommend will rebuild red snapper stocks within the statutorily required period.”) (quoting Daley, 209 F.3d at 754).

There is no basis for a “fairly high level of confidence” if the measure could as easily fail as succeed. Thus, even under Chevron deference to agency interpretation, a fifty percent probability would fall short of satisfying the agency’s obligation to reflect “a reasonable and permissible construction of the statute.” Daley, 209 F.3d at 754.² A measure should have at least a 75% chance of success to meet the requirement of having a “fairly high level of confidence.” See Fishermen’s Dock Co-op, 75 F.3d at 171 (upholding a target F that had an 81% probability of success).

Accordingly, Section 600.310 (f)(2)(vi) should be rewritten as follows:

ACT control rule means a specified approach to setting the ACT for each stock or stock complex such that the risk of exceeding the ACL due to management uncertainty is no greater than 25%.

Relationship of SDC to environmental change

- **Strike mandate – established in the draft regulations only – to respecify the SDC if environmental changes affect the long-term reproductive potential of the stock or stock complex.**

Addressing this concern would require striking the following section:

- A) **Section 600.310 (e)(2)(iii)(B):** If environmental changes affect the long-term reproductive potential of the stock or stock complex, one or more components of the SDC must be respecified. Once SDC have been respecified, fishing mortality may or may not have to be reduced, depending on the status of the stock or stock complex with respect to the new criteria.

² Nor is the Daley decision, in which 50 percent probability was used as a comparison, to the contrary. Daley held that an F with a mere 18% chance of success was too low a probability. Although the Court opined that “to be consistent with the fishery management plan, the TAL must have had at least a 50% chance of attaining the specified F,” Daley, 209 F.3d at 754 (internal quotation and modification omitted), it did not hold that 50 percent chance of success was itself legally sufficient to meet statutory and regulatory obligations.

Comment: Efforts to modify SDCs by claiming permanent, environmentally driven changes to reproductive capacity is a recurrent strategy by the fishing industry to maintain, or increase, unsustainable levels of fishing mortality (e.g., see extended debate on the summer flounder assessment over the past two decades (Terceiro, 2000)). The above provision invites further misuse of this approach. This provision is problematic on a number of levels.

First, the standard of “affect” is vague and inadequate and will likely be exploited by industry interests who aim to circumvent existing limit reference points and rebuilding targets. In addition, “long-term” reproductive potential is not defined, causing ambiguity about what scale of environmental forcing is relevant to the provision (decadal scale oscillations or longer-scale changes).³

Second, the mandated action relies on a scientific determination which is exceedingly difficult to ascertain, particularly given the existing limited time series and the inability to eliminate the confounding effects of fishing mortality on the population. Disentangling the effects of environmental variability and fishing mortality on fish population dynamics is exceedingly difficult and is rarely resolved (see debates about the collapse of Atlantic cod e.g., Rice et al., 2003). Similarly, researchers have devoted considerable effort to better understanding the relationship between recruitment and environmental variability with the goal of developing predictive capabilities – with limited success (Myers, 1998).

Third, this is one of the only provisions in the guidelines that *requires* the councils to take action (i.e., one of the only times that the word ‘must’ is employed), despite the fact that the provision has no statutory basis.

Lastly, this provision is particularly disconcerting as we enter into an era of anthropogenic climate change and stock dynamics are likely to change. For many stocks climate change will represent an additional stress. As Brander (2005) points out, if there was any clear lesson from the sustained collapse of the Atlantic cod it was that fishing mortality must be reduced when populations are faced with the additional stresses. Establishing a policy which will make it easy for industry interests to manipulate reference points to justify continued fishing patterns will significantly undermine the MSRA’s mandate to end overfishing and rebuild populations in as short a time as possible.

Accordingly, Section 600.310 (e)(2)(iii)(B) should be removed from the rule.

Accountability

- **The regulations must ensure accountability with the specified ACL, through inseason AMs, including fishery closures, and through corrective actions, including annual overage deductions**

³ It is noteworthy that this provision is not written in parallel to the previous section (600.310 (e)(2)(iii)(A), which requires environmental change to “cause” a stock or stock complex to fall below its MSST.

Again, 16 U.S.C. § 1853(a)(15) clearly mandates that any fishery management plan contain a system of accountability tied to the specification of annual catch limits (emphasis added below):

Any fishery management plan which is prepared by any Council, or by the Secretary, with respect to any fishery, shall...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.

The accountability provision is extremely important because it holds fishery managers accountable for achieving established catch levels and creates a disincentive for fishermen to exceed those levels. The provision was included in the reauthorization because too often catch levels were being blown past, sometimes by 100-200 percent or more.

The draft guidance falls short of meeting the legislative mandate in a number of key ways, most notably by: 1) failing to require implementation of the most effective accountability mechanisms (AMs), inseason AMs and overage deductions; 2) providing an explicit and unauthorized loophole to the accountability requirement for rebuilding plans; and 3) establishing a weak and optional system of accountability for data poor situations. These shortfalls and suggestions to rectify them are discussed per section below.

A) Section 600.310(g)(2): Language concerning inseasons AMs (see FRN text)

Comment: The final NS 1 guidance should require rather than suggest, as provided in this section, that fishery management plans include inseason monitoring and management measure to prevent catch from exceeding specified ACLs. Councils must be required to use preliminary data to track landed catch against ACLs, to ratchet down mortality as the landed catch approaches the ACL, and then to close the fishery if an ACL is met or to close a sector if a sector-based ACL is met. Sanctioned techniques to ratchet down mortality as the ACL is approached must have a high probability of success in reducing mortality. Inseason AMs should be targeted at the sector level both to increase the equitability of the overall system and to serve as a targeted disincentive to the appropriate sector against exceeding ACLs.

Accordingly, this section should be revised as follows:

Section 600.310(g)(2): Strike and replace as below.

Inseason AMs. FMPs must require: i) in season monitoring; ii) use of preliminary data to track landed catch against ACLs; iii) ratcheting down of mortality, using measures that have a high probability of success, as the catch approaches the ACL; and iv) closure of the fishery on or before the date when the ACL for a stock or stock complex is projected to be reached or closure of a sector on or before the date when the sector-based ACL is projected to be reached.

B) Section 600.310(g)(3): Language concerning corrective actions, including under rebuilding plans, and improving management measures (see FRN text)

Comment: The draft guidance fails to require deduction of the overage if an ACL is exceeded and blurs together actions that would prevent overages from occurring in the future with accountability for what has already occurred.

If a Council determines that an ACL was exceeded, managers should be required to deduct the overage from the ACL set for the following season, even if that ACL was initially set as part of a multi-year specification. The accounting time period should not be extended across multiple years under the premise that the population will be stronger in the future or that it will be easier to reduce fishing pressure at a later point. This could easily result in compounded overages, which in turn will compound the difficulty of taking adequate compensatory actions. The objective in all cases is to avoid situations of chronic overages leading to a condition of chronic overfishing, which renders the concept and goal of ACLs and AMs meaningless and runs counter to the MSRA mandate calling for accountability and for ensuring that overfishing does not occur. ACL deductions should be taken sector-by-sector to increase the equitability of the overall system and to serve as a targeted disincentive against exceeding ACLs.

Overage deductions must be viewed as an independent requirement from actions geared to preventing overages from occurring in the future, such as modifications of management measures or changes to the full system of ACLs, ACTs, and AMs. Unless an overage results in a stock slipping below its MSST and going into a rebuilding plan, overage deductions are the only way to bring a stock back in line with the trajectory it would have been on had the overage not occurred. Without an overage deduction, Councils would have to rely on the results of future stock assessments (which could be conducted several years hence), which could lead to a lower OFL and a correspondingly lower ACL, to compensate for population drops resulting from past overages. Use of stock assessments in this manner may allow managers to maintain biomass levels resulting from the total mortality (including the overage) and recruitment, but will not allow managers to make up for the overage and return the population to the size it would have been had the overage not occurred.

Ensuring that a stock remains as healthy as it was before an overage occurred, by requiring a full overage deduction in the following fishing season, is particularly important for stocks that are already classified as overfished and managed under a rebuilding plan. Therefore, Sec. 3(g) must be rewritten to require (rather than merely suggest) full overage deductions for stocks or stock complexes managed under rebuilding plan. In addition it is essential that the following language, currently included in Sec. g(3), be deleted: “unless the best scientific information available shows that a reduced overage adjustment, or no overage adjustment is needed to mitigate the effects of the overages.” This language creates a huge loop hole to the accountability requirement. Why take the fishing limits seriously if one can hope that the science will show that the overages don’t matter? The incentive for meeting the catch limit is diluted or even eliminated. Moreover, particularly if there has been no new stock assessment, isn’t this just an open invitation to rehash the appropriateness of the catch limit that was set?

Although overage deductions should be required, preventing overages from occurring in the first place is obviously better than having to compensate for overages once they occur. If an overage occurs, there should be steps taken to improve measures going forwards, whether that change is to improve data tracking, strengthen systems to ratchet down mortality as the ACL is

approached, or to close the fishery in a more timely manner once the ACL is achieved. *However, such improvements are not replacements for overage deductions, but should be intended to minimize the need for overage deductions.* In addition, if overages occur repeatedly, for instance more than once in every four years, it may be necessary to re-examine the system of ACLs, ACTs and AMs, but again, such re-examination is not an accountability measure or a substitute for overage deductions. Moreover, such a re-examination should result in management that is more rather than less precautionary. For instance, repeated overages must not be used as an excuse to raise ACLs to prevent future exceedances. Language to this effect must be included in the final guidance to clarify the term “re-evaluated”, currently included in both g(3) and g(4). The language currently does not denote directionality and could be viewed as an open invitation to revisit and raise the ACLs and ACTs, rather than to tighten measures in order to meet the limits.

Accordingly, this section should be revised as follows:

Section 600.310(g)(3): Strike and replace as below.

AMs for when the ACL is exceeded. On an annual basis, the Council should determine as soon as possible after the fishing year if an ACL was exceeded. If an ACL was exceeded, the ACL for the next fishing year must be reduced by the amount of the prior year’s overage, including under a multi-year plan. In addition, management measures for the next fishing year must be modified to increase the likelihood that the ACL will be met. If catch exceeds the ACL more than once in the last four years, the buffer(s) used to determine the ACL (or ACL and ACT) below the OFL, taking into account management and scientific uncertainty, should be increased to decrease the likelihood of ACL exceedances.

C) Section 600.310(g)(4): Language concerning AMs for data poor situations (see FRN text)

Comment: Timely catch data may not be available for all fisheries, making both inseason adjustments and annual overage deductions – based on a direct comparison of landed catch to ACL – impossible. In such cases, and until a system of timely data collection is put in place, Councils should “ensure accountability” by comparing average catch, perhaps over the preceding 3 years, to the average ACL set for that same time period. If average catch exceeds the average ACL, the ACL for the following season should be reduced by the average overage calculated over the same timeframe chosen for comparison between the average catch and the average ACL. This requirement should be substituted for the current method, based on a one in four year re-evaluation, suggested by Sec. g(4). The requirement to base the initial ACL on data from past years should be maintained.

Accordingly, this section should be revised as follows:

Section 600.310(g)(4): Strike and replace as below.

AMs based on multi-year average data. Some fisheries have highly variable annual catches and lack reliable inseason or annual data on which to base AMs. If there are insufficient data upon which to compare catch to ACL, either inseason or on an annual basis, AMs must be based on overage deductions determined by comparisons of average catch to average ACL over a three-year moving average period or, if supported by analysis, some other multi-year period.

Evaluation of the moving average catch to the average ACL must be conducted annually. If average catch exceeds the average ACL in a given year, the ACL for the following season should be reduced by the moving average overage calculated over the time period chosen. The initial ACL should incorporate information from the previous years so that AMs based on average ACLs can be applied from the first year.

Rebuilding

➤ **T_{target} must be anchored to T_{min} as closely as possible**

Under the Magnuson-Stevens Act, overfished species must be rebuilt in a time period that is “as short as possible.” 16 U.S.C. § 1854(e). The justification for this priority, even when it causes economic hardship, lies in the statutory recognition that a healthy, rebuilt fishery is in the interests of both fishing community and environmental goals. See 16 U.S.C. § 1801(a)(1) (noting that the nation’s fishery resources “constitute valuable and renewable natural resources,” that many of these species’ survival is threatened and that others’ survival will soon be threatened by “increased fishing pressure, . . . the inadequacy of fishery resource conservation and management practices and controls.”). Congress stated explicitly that it intended with the MSA “to take immediate action to conserve and manage the fishery resources.” 16 U.S.C. § 1801(b)(1). These concerns and priorities remained unchanged by the MSRA which, in fact, created even stronger measures to protect overfished species. See, e.g., 16 U.S.C. § 1854(e) (requiring that overfishing be stopped “immediately”); 16 U.S.C. § 1854(4)(A) (eliminating language which allowed plans and regulations to specify a time period during which overfishing could occur).

The issue of how to interpret “considering the needs of the fishing community” in light of the MSA’s mandate to “rebuild as quickly as possible” has been squarely considered by one federal Court of Appeals. In NRDC v. NMFS, the Ninth Circuit concluded that “Congress intended to ensure that overfished species were rebuilt as quickly as possible, but wanted to leave some leeway to avoid disastrous short-term consequences for fishing communities.” 421 F.3d 872, 880 (9th Cir. 2005). The Court illustrated “disastrous short-term consequences” as a “total fishing ban.” Id. It concluded that because a total ban would cause disastrous short-term consequences, the agency was not required to prohibit all fishing (which would rebuild the species the fastest) but could “set limited quotas that would account for the short-term needs of fishing communities.” Id. “The purpose of the Act is clearly to give conservation of fisheries priority over short-term economic interests.” Id. at 879.

Accordingly, to comply with the MSA’s requirement to rebuild as quickly as possible, T_{target} must be set as close to T_{min} as possible. The leeway the agency has to extend T_{target} beyond T_{min} is limited to the amount of fish necessary to prevent disastrous short-term consequences to fishing communities. Therefore any T_{target} longer than T_{min} must be specifically demonstrated as necessary to prevent a short-term disaster to fishing communities. See NMFS, 421 F.3d at 880 (reiterating that although the agency is allowed to consider the needs of fishing communities in setting a rebuilding plan, “the time period must be *as short as possible*”) (emphasis in original, internal quotations omitted).

Applying the required T_{\min} focus to these guidelines would require changes to the following sections:

A) Section 600.310(j)(3)(i)(C): If T_{\min} for the stock or stock complex is 10 years or less, then the maximum time allowable for rebuilding (T_{\max}) that stock to its B_{msy} is 10 years.

Comment: This language inappropriately gives weight to T_{\max} as a factor in the calculation of a rebuilding period, which is contrary to the legal requirement to make rebuilding periods as short as possible. Instead, these guidelines should focus rebuilding plan lengths on T_{\min} .

Accordingly, this section should be revised as follows:

Section 600.310(j)(3)(i)(C): If T_{\min} for the stock or stock complex is 10 years or less, then T_{target} must be set as close to T_{\min} as possible without causing a short-term disaster. The maximum time allowable for rebuilding (T_{\max}) that stock to its B_{msy} is 10 years.

B) Section 600.310(j)(3)(i)(D): If T_{\min} for the stock or stock complex exceeds 10 years, then the maximum time allowable for rebuilding a stock or stock complex to its B_{msy} is T_{\min} plus the length of time associated with one generation time for the stock or stock complex. “Generation time” is the average length of time between when an individual is born and the birth of its offspring.

Comment: This language inappropriately gives weight to T_{\max} as a factor in the calculation of a rebuilding period, which is contrary to the legal requirement to make rebuilding periods as short as possible. Instead, these guidelines should focus rebuilding plan lengths on T_{\min} .

The reliance on generation time (GT) is also problematic. First, if generation time is based on unfished population, this metric can inappropriately extend the rebuilding time. The average is weighted by fecundity, so that large, old females that produce many eggs contribute more to the GT than do small females. Thus, the actual generation time in a fished population is likely to be much less than the unfished GT, because in an unfished population, more of the egg production comes from big, highly fecund, old females. Second, generation time can be a difficult metric to estimate. Calculating GT requires information on fecundity and survival rates for an unfished population and this information is not available for many fish populations.

Therefore, if GT is used, the generation time of the current population would be a better benchmark than the GT of the unfished population, particularly for populations that have been fished for decades where it would be difficult to estimate the unfished GT.

Accordingly, this section should be revised as follows:

Section 600.310(j)(3)(i)(D): If T_{\min} for the stock or stock complex exceeds 10 years, then T_{target} must be set as close to T_{\min} as possible without causing a short-term disaster. In no case shall the time allowable for rebuilding a stock or stock complex to its B_{msy} be longer than T_{\min} plus the length of time associated with one generation time for the stock or stock complex. “Generation

time” is the average length of time for current stock between when an individual is born and the birth of its offspring.

C) Section 600.310(j)(3)(i)(E): T_{target} shall not exceed T_{max} , should generally be less than T_{max} , and should be calculated based on the factors described in this paragraph (j)(3) with a priority given to rebuilding in as short a time as possible.

Comment: This section is problematic on a number of fronts. First, under current federal law, T_{target} *must* be less than T_{max} unless it would cause a short-term disaster. Second, this section impermissibly suggests that a rebuilding period could be oriented around T_{max} instead of directing rebuilding focus to T_{min} . Third, it is a legal requirement – not simply a priority – that the rebuilding period be as short a time as possible. Finally, this section as written disregards the federal law determination that “taking into account the needs of the fishing communities” means rebuilding periods may exceed T_{min} only as much as is necessary to avoid an economic short-term disaster.

Accordingly, this section should be revised as follows:

Section 600.310(j)(3)(i)(E): T_{target} shall be set as close to T_{min} as possible and should be calculated based on the minimum amount of fishing needed to avoid an short-term economic disaster for fishing communities. Any T_{target} longer than T_{min} must be specifically justified in accordance with the requirement to rebuild in as short a time as possible.

D) Section 600.310(j)(3)(ii): If a stock or stock complex reached the end of its rebuilding plan period and has not yet been determined to be rebuilt, then the rebuilding F should not be increased until the stock or stock complex has been demonstrated to be rebuilt. If the rebuilding plan was based on a T_{target} that was less than T_{max} , and the stock or stock complex is not rebuilt by T_{target} , rebuilding measures should be revised if necessary, such that the stock or stock complex will be rebuilt by T_{max} . If the stock or stock complex has not rebuilt by T_{max} , and the rebuilding F is greater than 75 percent of MFMT, then the rebuilding F should be reduced to no more than 75 percent of MFMT until the stock or stock complex has been demonstrated to be rebuilt.

Comment: F generally should never be increased during the rebuilding period. If a given F did not cause a short-term economic disaster, the MSA’s mandate that overfished species be rebuilt as quickly as possible requires that F not be increased before the species is rebuilt.⁴ This section should be reworded because as it stands it wrongly implies that F can be increased in some situations (e.g., where rebuilding is on target).

The language of this section treats T_{target} as a nebulous, unenforceable concept and T_{max} as the only rigorous deadline, which is inconsistent with the legal mandate to rebuild in as short a time as possible. T_{target} must be treated as a real deadline, not an advisory one, if rebuilding is to happen as mandated by the MSA. This is especially true if rebuilding programs choose a management regime with only a 50% probability of success, as T_{target} will be missed as often as it

⁴ A constant F policy will result in increased catch as the stock rebuilds, thereby accommodating the “rebuilding paradox” concern that a rebuilding stock results in more encounters with the overfished species.

is hit. In fact, this section as written could encourage the selection of “certain to fail” T_{targets} to enable the “legal” selection of T_{max} , post failure. .

To ensure appropriate motivations to do the work of rebuilding overfished species, there should be real consequences (such as a lower F) for failing to rebuild within the rebuilding period. Therefore, we recommend that if rebuilding progress is lagging by more than 10 percent of where it should be under the rebuilding plan, F should be decreased to no more than 75 percent of MFMT until the rebuilding plan is back on target. If at T_{target} the stock has not been rebuilt, the F should be decreased further, to no more than 50% of MFMT. Finally, if at T_{max} the stock is still not rebuilt, F should be decreased to no more than 25% of MFMT.

Accordingly, this section should be revised as follows:

Section 600.310(j)(3)(ii): If rebuilding progress of a stock or stock complex is lagging by more than 10 percent of where it should be under the rebuilding plan and the F rate is more than 75 percent, then the F rate should be decreased to no more than 75 percent of MFMT until the stock is demonstrated to be back on target to be rebuilt by T_{target} . If the rebuilding plan was based on a T_{target} that was less than T_{max} , and the stock or stock complex is not rebuilt by T_{target} and the F rate is more than 50 percent of MFMT, the F rate should be decreased to no more than 50 percent of MFMT until the stock has been demonstrated to be rebuilt. If the stock or stock complex has not been rebuilt by T_{max} and the F rate is more than 25 percent of the MFMT, then the F rate should be decreased to no more than 25 percent of MFMT until the stock or stock complex has been demonstrated to be rebuilt.

Conclusion

Preventing and ending overfishing (“such that overfishing does not occur”) in all cases, rebuilding overfished fisheries in as short a time as possible, not to exceed 10 years, except in limited cases provided by the act, and ensuring accountability with specified ACLs are critical techniques to maintain and restore sustainable fish populations, fisheries based economies, coastal communities, and marine ecosystems. The suggestions provided above are necessary both to achieve these goals and to meet the MSRA’s legislative directives and related congressional intent. Thank you for considering these official comments and please contact us with any questions.

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