# Question and Answers Related To Annual Catch Limits and National Standard 1 Guidance

## Topic: Ecosystem Component Species



## Topic: Data Poor Stocks

**ACRONYMS**

ABC……acceptable biological catch
ACL……..… annual catch limit
ACT..... annual catch target
AM..... accountability measures
EFH..... essential fish habitat
ESA..... Endangered Species Act
FMP..... fishery management plan
MSA..... Magnuson-Stevens Fishery Conservation and Management Act
MSY..... maximum sustainable yield
NMFS..... National Marine Fisheries Service
NOAA..... National Oceanic and Atmospheric Administration
NS1..... National Standard 1
OFL..... overfishing limit
OY..... optimum yield
Q&A..... question and answer
SSC..... scientific and statistical committee

**Note:** This Q&A document addresses common questions about provisions in the NS1 guidelines and is intended to be fully consistent with the guidelines. Any discrepancies between this document and the NS1 guidelines as published in the *Federal Register* on January 16, 2009 (74 FR 3178) will be resolved in favor of the *Federal Register.* As NOAA's NMFS and the Regional Fishery Management Council's work toward the development of Fishery Management Plan amendments to implement the NS1 guidelines, the Q&A document may be revised and additional Q&A may be added as necessary.

## Topic: MSY and OY

**1) What is MSY?**

MSY is the largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological, environmental conditions and fishery technological characteristics (e.g., gear selectivity), and the distribution of catch among fleets. MSY is usually estimated in stock assessments.

**2) What is OY?**

OY is the long-term average amount of desired yield from a stock, stock complex, or fishery. Because the population size of fish stock fluctuates every year, the amount of fish that is available to the fishery in any given year may be above or below the OY. Sometimes these annual amounts are referred to as the "annual OY." The determination of OY should consider overall benefit to the nation, and any relevant economic, social, or ecological factors. The OY cannot exceed MSY, and must be achieved while preventing overfishing. In the case of an overfished fishery, the OY must provide for rebuilding to a level consistent with producing the MSY in such fishery. Regional Fishery Management Councils are required to assess and specify OYs in their FMPs.

## Topic: Overfishing and Overfished

**3) What is fishing mortality?**

Fishing mortality is the rate or level at which fish die due to fishing. The estimate of fishing mortality typically includes fish that are retained for any purpose, as well as mortality of fish that are discarded. The rate of fishing mortality is a key concept in fishery stock assessments, as it is the main factor that management can influence, and is used to determine whether overfishing is occurring.

**4) What do "overfishing" and "overfished" mean?**

"Overfishing" on a stock or stock complex occurs whenever the stock or stock complex is subjected to a level of fishing mortality or annual total catch that jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis. A stock or stock complex is considered "overfished" when its biomass has declined below a level that jeopardizes the capacity of the stock or stock complex to produce MSY on a continuing basis.

## Topic: OFL and ABC

**5) What is an OFL?**

The OFL is the best estimate of the maximum amount of a stock that can be caught in a year without resulting in overfishing. The OFL is an amount of catch calculated from the estimate of biomass for a year and the maximum rate of fishing mortality that does not result in overfishing. Catch equal to OFL results in equal probability that overfishing is or is not occurring.

**6) Does the Council's SSC have to specify an OFL?**

The MSA does not specifically mandate that an OFL be set for every stock. However, as the OFL is the upper limit for determining the ABC and ACL, it should be estimated whenever possible. It is not currently possible to calculate the OFL for every stock, primarily because reliable estimates of biomass are not available for every stock. However, if it is not possible to calculate OFL, the MSA requirements for establishing ABC and ACL still apply. See the answers to questions 12 and 13 for more information on setting an ABC when OFL is unknown.

**7) Does "ABC" refer to "acceptable biological catch" or "allowable biological catch"?**

Both the MSA and the NS1 guidelines use the term *acceptable* biological catch. Some Councils have in the past used the term "allowable biological catch" which may be functionally equivalent to the term "acceptable biological catch." NMFS recommends that "acceptable biological catch" be used, as that is the term that appears in the MSA.

**8) What is ABC?**

The ABC is an annual catch level recommended by a Council's SSC. The Council's ACL for a stock may not exceed the ABC recommendation of the SSC for that stock. The SSC's ABC recommendation should incorporate consideration of the stock's life history and reproductive potential, vulnerability to overfishing, and the degree of uncertainty in the science upon which the ABC recommendation is based.

**9) What is the relationship between OFL and ABC?**

The ABC must be less than or equal to the OFL; however, in most situations the ABC will be less than OFL in consideration of the factors listed in the answer to question 8. If the ABC were set equal to the OFL, then catching the ABC would result in a 50-percent chance of overfishing. To comply with the MSA's requirement to prevent overfishing, the probability that an actual catch equal to a stock's ABC will result in overfishing cannot exceed 50-percent, and should usually be a lower value. In general, the higher the degree of scientific uncertainty, the bigger difference there should be between the OFL and ABC.

**10) What is an ABC control rule?**

An ABC control rule is established by the Council, based on advice from its SSC, and is a specified approach to calculate the ABC for a stock. When setting an ABC control rule, the Council and/or its SSC should consider reducing the fishing mortality rate as stock size declines (especially when a stock is overfished) and establishing a stock abundance level below which fishing would not be allowed. More information about ABC control rules is in the answers to questions 12 and 13.

**11) Does an SSC have to recommend the ABC determined by the ABC control rule?**

The SSC's ABC recommendation should be based on the ABC control rule. The SSC may recommend an ABC that differs from the result of the ABC control rule, based on factors such as data uncertainty or bias, recruitment variability, declining trends in population variables, and other factors. However, if a different value is recommended, the SSC must thoroughly explain why they have chosen to do so.

**12) The NS1 guidelines state that the ABC control rule should account for the scientific uncertainty in the estimate of the OFL. In the case where the scientific uncertainty cannot be calculated, what should be the basis for the ABC control rule?**

The fact that uncertainty cannot be calculated is, in fact, important evidence of a high level of uncertainty. The ABC control rule should therefore be appropriately conservative to account for this uncertainty. If the OFL or the scientific uncertainty in the OFL cannot be estimated, expert judgment and sound conservation principles can be utilized to determine the ABC. For example, recent average catch data and trends in annual catch could provide the basis for estimating ABC. In any case, the choice of the ABC control rule must be adequately described in the FMP.

**13) Should the ABC control rule always take into account the Council's policy on the acceptable level of risk of overfishing?**

Yes. The Council should always include a consideration of risk in the ABC control rule. If possible, the Council's risk policy should be based on an acceptable probability that an actual catch equal to the ABC would result in overfishing. For example, a Council might decide that, for some stocks, there should be no more than a 40-percent probability that an actual catch equal to the ABC would result in overfishing. In no case may there be greater than a 50-percent probability that the catch equal to the ABC would result in overfishing. When it is not possible to use a probability-based approach, the ABC control rule could incorporate other precautionary approaches to reduce the ABC from the OFL. For example, a control rule that states that ABC will be set at 75 percent of the OFL, acknowledges that the OFL is uncertain and reduces the risk that overfishing will occur.

**14) Is NMFS going to provide additional information related to ABC and ACLs that may be helpful to Councils and their SSCs?**

Yes. NMFS has a working group that is developing a report on methods to address scientific uncertainty and develop appropriate control rules. This report is not intended as technical guidance, but an examination of methods that SSCs can use when developing ABC control rules. NMFS has another working group that has developed a methodology for determining the vulnerability of a stock, and their report can be downloaded from the following website: http://www.nmfs.noaa.gov/msa2007/vulnerability.htm. NMFS has a third working group that is revising the National Standard 2 guidelines regarding the use of best scientific information available. NMFS published an Advance Notice of Proposed Rulemaking on September 18, 2008 (73 FR 54132) and expects to publish a proposed rule in 2009. In addition to these working groups, NMFS scientists and managers continue to work closely with the Councils as they develop ACLs and AMs.

## Topic: ACLs

**15) If an SSC does not recommend an ABC, is the Council required to set an ACL?**

Yes, the MSA requirement to set ACLs still applies.

**16) If a Council has data poor stocks in an FMP, with no landings or catch data available, does the Council still have to set an ACL for the stock?**

The MSA does not provide an exception from ACL and AM requirements for data poor stocks. All stocks in a fishery must have ACLs, either individually or as part of a stock complex. If little or no catch data are available for a stock or stock complex, the Council and NMFS should implement the necessary data collection system to support ACLs.

**17) How should Councils manage a stock under ACLs if it is caught in more than one fishery?**

If a stock is caught in more than one fishery, one FMP should be designated as the primary FMP in which the stock's overall ACL is established. Conservation and management measures in other FMPs should be consistent with the primary FMP's management objectives for that stock. A stock caught in multiple fisheries does not need to be classified as "in the fishery" in all pertinent FMPs, however, the guidelines do not preclude a stock from being classified as "in the fishery" in multiple FMPs. Catch of a stock in various fisheries must not exceed the overall stock's ACL, since the ACL must take into account all sources of mortality.

**18) What are appropriate uses of sector-ACLs for a stock?**

Sector-ACLs can be used to meet a wide variety of management objectives identified by a Council. The sum of the sector-ACLs must not exceed the overall stock ACL. For example, sector-ACLs could be established for a sector that targets and retains a stock, for a sector that discards the stock, or for a sector that catches the stock incidental to another fishery.

## Topic: Exceptions to the requirement for ACLs

**19) Does every stock in an FMP require an ACL?**

No. There are two statutory exceptions (annual life-cycle exception and international exception) to the ACL requirement for stocks in a fishery. In addition, ecosystem component species (see question 26) do not require ACLs. Finally, several stocks may be grouped into stock complexes if they meet certain criteria. ACLs may be set for the stock complex as a whole, or for one or more indicator stocks within the complex.

**20) What is required for stocks in a fishery with a life cycle of approximately one year?**

One-year life cycle stocks are exempt from the requirement for ACLs only if they are not subject to overfishing. The Council should document in the administrative record that the stock meets the life cycle exception and, therefore, does not require ACLs, so long as overfishing is not occurring. These stocks should still have a mechanism established in the FMP for setting ACLs so that if the stock is determined to be subject to overfishing, ACLs can be implemented in the subsequent fishing year. Stocks with a life cycle of approximately one year are still required to have ABC, ABC control rules, status determination criteria, MSY, and OY. NMFS recommends that these stocks be managed with AMs (even when ACLs are not necessary) to prevent overfishing.

**21) What is required for a stock to qualify for the international exception?**

The scope of the international exception in the MSA is not clearly specified in the statute. The NS1 Guidelines establish that "any stock subject to management under an international agreement" is not required to have ACLs and AMs. The MSA defines "international fishery agreement" as "any bilateral or multilateral treaty, convention, or agreement which relates to fishing and to which the United States is a party." Therefore, if a stock is managed under an international agreement, Councils may not be required to set an ACL for that stock. This will be determined on a case–by-case basis. The Council should review each stock potentially addressed by an international agreement and consult with NOAA. The decision to apply the international exception to the ACL requirement should be documented in the administrative record.

**22) What is NOAA's policy on the mixed-stock exception?**

The provision in the NS1 Guidelines titled "Exceptions to requirements to prevent overfishing," is often referred to as the "mixed-stock exception," and defines the circumstances under which limited overfishing of a stock in a mixed stock fishery could occur. The guidelines state that the exception cannot be applied if a fishery is overfished. Before a Council may recommend use of the exception, an analysis must be performed, and that analysis must contain a justification in terms of overall benefits, including a comparison of benefits under alternative management measures, and an analysis of the risk of any stock or stock complex falling below its minimum stock size threshold.

**23) May the mixed-stock exception be applied to a stock that is in an overfished condition?**

No. The guidelines state that the exception cannot be applied if a fishery is overfished.

**24) What changes were made to the mixed-stock exception in the recent revision of the NS1 guidelines?**

The mixed-stock exception in the NS1 guidelines implemented in 1998 allowed overfishing to occur on stocks within a complex, if certain criteria were met and approved, so long as they did not become listed under the ESA. The recent amendments to the overfishing and rebuilding provisions of the MSA further strengthened the Act's conservation goals. In light of the new provisions, NMFS believes that ESA listing is an inappropriate threshold, and that all stocks should be managed so they retain their potential to achieve MSY. The NS1 guidelines, as revised in 2009, thus have a higher threshold, limiting fishing mortality to a level that will not lead to the stock becoming overfished more than 50-percent of the time in the long term. In addition, the 2009 guidelines made more clear that the mixed-stock exception cannot be used if the stock is in an overfished condition.

## Topic: Ecosystem Component Species

**25) What are "stocks in the fishery"? What are "ecosystem component species"?**

The MSA gives Councils considerable discretion in defining the "fishery" under their FMPs. Some FMPs include one or a few stocks, whereas others include hundreds of species in an effort to incorporate ecosystem approaches to management. The MSA provides authority to manage fisheries using an ecosystem-based approach. NMFS wanted to encourage ecosystem-based management approaches, so it established the ecosystem component species as a possible classification a Council may – but is not required to – consider. NMFS considers all stocks in an FMP to be "in the fishery", unless a stock has been specifically identified through an FMP or FMP amendment as an "ecosystem component species." To be considered an ecosystem component species, the species should: Be a non-target species or non-target stock; not be subject to overfishing or overfished nor likely to become so; and generally not be retained for sale or personal use.

**26) Do ecosystem component species have to have ACLs?**

No. Ecosystem component species are not considered to be in the fishery and are not required to have ACLs.

**27) Do the Councils need to add ecosystem components species to their FMPs?**

No. The Councils are not required to add ecosystem component species to their FMPs; however, a Council may consider adding such species into an FMP at any time. The NS1 guidelines establish that, as a default, all stocks currently in an FMP are considered to be "in the fishery." The guidelines provide that, if a species meets certain criteria, it could be classified (through an FMP or FMP amendment) as an ecosystem component.

**28) Is a Council required to consult the SSC when designating ecosystem component species?**

The decision to designate a species as an ecosystem component species, like any other decision, must be soundly justified and based on best scientific information available. The SSC, being the primary science advisors to the Council, should be consulted to determine if the science behind the justification is adequate and supports the designation.

**29) Should EFH be designated for ecosystem component species?**

No. EFH must be described for the fishery (i.e., stocks in the fishery management unit). Because ecosystem component species are not part of the fishery, the EFH mandatory provisions for FMPs do not apply.

**30) How should "data-collection" or "monitoring" only stocks be classified?**

All stocks listed in an FMP are considered to be "in the fishery," unless they are identified as an ecosystem component species through an FMP or FMP amendment. A Council can decide to keep "data collection" or "monitoring" only stocks in the fishery. Where appropriate, a Council could reclassify "data collection" or "monitoring" only stocks as ecosystem component species through an FMP amendment.

**31) Since ecosystem component species are not in the fishery, can FMPs have implementing regulations, such as a prohibition on retention, apply to them?**

Yes. While ecosystem component species are unlikely to become overfished or undergo overfishing in the absence of conservation and management measures, Councils may apply management measures to these species if it is ecologically beneficial to the fishery (including but not limited to MSA 303(b)(12) & (14)). In addition, a Council should consider measures for the fishery to minimize bycatch and bycatch mortality of ecosystem component species

## Topic: Data Poor Stocks

**32) For data poor stocks, how can OFL, ABC, and ACL be specified?**

Data poor stocks are stocks for which there is inadequate data to complete a stock assessment that could estimate biomass and fishing mortality reference points. NMFS has provided guidance that recent average catch can be a basis for establishing the OFL and ABC (74 FR 3178, January 16, 2009). The NS1 Guidelines also allow for grouping data poor stocks into an appropriate stock complex that is managed and monitored using one or more indicator stocks (i.e., stocks that can be assessed).

**33) For data poor stocks, can the ACL be specified at a level higher than recent average catch?**

Yes. The ACL could be specified at a level higher than recent average catch unless the best available information indicates that past fishing depleted the stock below the level that would support MSY, and if the best available information supports a finding that recent average catch levels are sustainable without depleting the stock below the level that would support MSY. Even though the stock abundance and fishing mortality rates cannot be quantified for data poor stocks, the status of the stock and the fishery should be considered in the context of maintaining an abundant stock that is not subject to overfishing. A key consideration in setting the ACL higher than recent average catch is the appropriate ACL that would allow the average catch in the fishery to be maintained. In other words, if it is determined that the recent average catch level is an appropriate target catch level, the ACL can be set at an appropriate amount above the target level to allow the fishery to maintain recent average catch levels.