

RED LIGHT/GREEN LIGHT THRESHOLD FOR OPTIMUM YIELD ADJUSTMENTS

The Council adopted Groundfish Fishery Management Plan (FMP) Amendment 17 in November 2002 which put in place a new biennial groundfish management process. As part of this action, the Council adopted the Groundfish Management Team (GMT) advice to include a mid-process “best available science” check of harvest specifications (Agendum C.4.a, Attachment 1). The mid-process check would be responsive to new assessments and other scientific information that might compel the Council to consider adjusting optimum yields (OYs) before the second year of the biennial management cycle. For instance, new groundfish assessments adopted by the Council in November 2005 might compel the Council to change OYs before the start of the 2006 fishing year. The exact wording of the Council's November 2002 motion is as follows:

Adopt Alternative 3 as described in the EA Exhibit G.5, Attachment 1, including (1) the mid-process best available science check in the Exhibit G.5.c, Revised Supplemental GMT Report, (2) including the two one-year OY recommendations as in Exhibit G.5.c, Revised Supplemental GMT Report, and (3) with the exception that whiting may be done on an annual basis.

Further the GMT will be tasked to work with the Council advisory bodies to come up with the thresholds for determining whether mid-process changes are necessary.

While the policy for considering a mid-process check on OYs, including the thresholds for triggering this decision, has yet to be developed, there has been some confusion as to, (1) whether the mid-process check would allow consideration of both decreases and increases of OYs (i.e., red light/green light) or only decreases in OYs (i.e., red light only) and (2) what species are eligible for potential adjustment. The transmittal letter for the proposed FMP amendment referred to “altering harvest levels” in light of new science, implying either direction and for any species (Agendum C.4.a, Attachment 2, third paragraph). However, the FMP amendatory language, that spoke to the mid-process check of OYs and was approved by the Secretary of Commerce when Amendment 17 was approved, only considered downward adjustments to OYs and only for overfished stocks (Agendum C.4.a, Attachment 3). This amendatory language was not presented to the Council when the Amendment 17 decision was made in November 2002, but was included in the materials put forward for Secretarial approval. The FMP Amendment 17 approval letter refers to a checkpoint process ensuring harvest levels are adequately conservative to protect overfished species (Agendum C.4.a, Attachment 4, second paragraph). On the other hand, recent GMT and Scientific and Statistical Committee discussions refer to investigating adjustments in either direction and are not limited to overfished species (Agendum C.4.a, Attachments 5 and 6, respectively).

The Council task under this agendum is to provide guidance to the National Marine Fisheries Service on the Council's intent when they adopted the concept of a mid-process check of OYs under multi-year management and to discuss future plans for development of a mid-process check on OY levels to reflect best available science.

Council Task:

- 1. Provide a finding of whether the mid-process check of harvest specifications was intended to include consideration of both increases and decreases of OYs and for just overfished species or all species.**
- 2. Provide guidance on assignments to advisory bodies.**

Reference Materials:

1. Agendum C.4.a, Attachment 1: Revised Supplemental GMT Report from the November 2002 Council meeting.
2. Agendum C.4.a, Attachment 2: Amendment 17 transmittal letter from Dr. Donald McIsaac to Mr. Robert Lohn dated May 14, 2003.
3. Agendum C.4.a, Attachment 3: FMP Amendment 17 amendatory language (Section 5.7.1 as amended).
4. Agendum C.4.a, Attachment 4: Amendment 17 approval letter from Mr. Robert Lohn to Mr. Donald Hansen dated August 19, 2003.
5. Agendum C.4.a, Attachment 5: Excerpt from summary minutes of the February 2003 GMT meeting.
6. Agendum C.4.a, Attachment 6: Excerpt from summary minutes of the March 2003 SSC meeting.

Agenda Order:

- a. Agendum Overview
- b. Reports and Comments of Advisory Bodies
- c. Public Comment
- d. Council Guidance on Defining the Task

John DeVore

PFMC
08/25/04

**REVISED SUPPLEMENTAL GMT REPORT FROM
THE NOVEMBER 2002 COUNCIL MEETING**

**GROUND FISH MANAGEMENT TEAM STATEMENT
ON AMENDMENT 17 - MULTI-YEAR MANAGEMENT**

The Groundfish Management Team (GMT) received an update on Amendment 17 at its October meeting from Yvonne deReynier, National Marine Fisheries Service. With regard to the multi-year management cycle, the GMT prefers Alternative 3, a three-meeting biennial process with a January 1 start date for the fishing year and statistical year. This alternative does not use the most current science for the development of management measures, but it does provide for consistency with historic management practices as it reflects the status quo fishing period. This consistency allows fishery managers to compare current statistics with historical data.

Table 1. Multi-year Management Timeline (Alternative 3, Amendment 17)							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Survey	A	B	C	D	E		
Assessment		A		A-C*		A-E	
Management			A		A-C		A-E
Fishing				A	A	A-C	A-C
* Assessments for fishing in Years 6-7 would be complete by October of Year 4. November Council meeting of Year 4 could allow checkpoint for Year 5 harvest levels to ensure that those harvest levels set in earlier management process are adequately conservative to meet overfished species protection and conservation requirements.							

The GMT is aware of the desire of industry to maintain a January 1 start date to accommodate established marketing practices. Starting the fishery later in the year (e.g., March or May) could cause additional problems as those start dates could result in inseason adjustments having to be made outside of regularly scheduled Council meetings. It is for those reasons that the GMT is proposing a mid-process "best available science" check on harvest levels.

The GMT also believes that a three-meeting process would serve best to provide adequate time for stakeholder involvement in the decision-making process, as well as time needed to review stock assessment and/or rebuilding results, develop management measures, prepare necessary NEPA documents, and make necessary changes to documents prior to the Council taking final action.

The GMT also discussed the trade-offs associated with having a two-year optimum yield (OY) vs. two one-year OYs. The GMT recommends two one-year OYs (status quo) because of the fishing and management implications associated with overharvest in the first year of a two-year OY. If this would occur, not only could it severely constrain fisheries in the second year, ~~it may also result in overfished species not meeting rebuilding targets.~~ Further, the GMT does not believe that overages should be transferred as this could result in severe fishing and management problems the following year. The GMT also recognizes that transferring underages only could increase the likelihood that cumulative OYs over the long-term will be exceeded. The GMT notes that, under the status quo, overages are accounted for when stock assessment or rebuilding analyses are updated.

The GMT recognizes there are trade-offs in transition year (2004) management process alternatives. Table 2 provides the Status Quo two-meeting process used this year to develop 2003 management measures and an alternative three-meeting process consistent with the Council-preferred Alternative 3 multi-year management alternative. While a three-meeting process is preferred by the GMT for the reasons stated above, there are potential difficulties associated with a three-meeting transition year process. Perhaps the greatest potential problem is the confusion that may be associated with the Council deciding final 2004 management measures at the same meeting in which preliminary harvest levels and management measures for 2005-2006 are being decided. Further GMT modeling of 2004 management measures following the September meeting would also reduce the resources available for preparing the preliminary 2005-2006

package for the November meeting. Finally, the GMT notes that NMFS Regional staff will have to publish some form of Federal regulations by January 1. Delaying the final decision on 2004 management measures until November will significantly increase the end-of-year workload associated with meeting that deadline.

The notice and comment period constraints for a supporting NEPA analysis for 2004 management measures could be sustained under this alternative if emergency measures are adopted for the first four months of 2004 or a roll-over of 2003 OYs and management measures is adopted for the first four months of 2004. The extent to which a rollover from 2003 might meet Council needs during the first four months of 2004 will depend on finding that observer data do not indicate higher bycatch rates of overfished species than were used in modeling the 2003 fishery. The GMT also notes that decisions resolving how the first 2 or 4 months of 2004 ~~will be handled~~ will need to be made by the September Council meeting in order to ensure implementation by January 1.

If staff workload associated with developing the 2004 regulatory and analysis package between the September and November Council meetings is a major consideration in evaluating the desirability of a 3-meeting process in 2003, the GMT recommends that the Council also consider an option of maintaining the status quo decision-making schedule, but delaying delivery of the final 2004 NEPA analysis until after the November meeting, and making the necessary emergency rule/rollover provisions for the first 4 months of 2004.

PFMC
10/31/02

* Verbiage in ~~strikeout~~ was orally deleted by Dr. Jim Hastie on the Council floor when the GMT statement was presented.

Agendum C.4.a
Attachment 2
September 2004

PACIFIC FISHERY MANAGEMENT COUNCIL

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Donald O. McIsaac

CHAIRMAN
Hans Radtke

May 14, 2003

Mr. Robert Lohn, Regional Administrator
National Marine Fisheries Service, Northwest Region
7600 Sand Point Way NE
BIN C15700, Building 1
Seattle, WA 98115-0070

Dear Mr. Lohn:

During its meeting on October 31, 2002, the Pacific Fishery Management Council (Council) adopted Amendment 17 to the Groundfish Fishery Management Plan (FMP). Amendment 17 would change the groundfish management process to a multi-year schedule so that measures can be established for two years, rather than one. This could provide more time for the Council and National Marine Fisheries Service (NMFS) to work on other critical groundfish issues, such as strategic plan implementation. In addition, a revised management schedule would provide enough time for NMFS to publish a proposed rule in the *Federal Register* and take public comment before its final decision on whether to approve the Council recommendations.

In adopting Amendment 17, the Council selected a preferred alternative that would establish a biennial management cycle for groundfish beginning with the 2005-2006 fishing years. Under this alternative, a three Council meeting process (November-March/April-June) would be used to prepare biennial management measures. The Council also selected a preferred alternative for establishing optimum yield (OY) values. Under the preferred alternative, OY values for managed species would be established for each fishing year during the two-year management period. That is, two one-year OYs would be specified for each managed species.


To ensure the Council could respond to significant changes in a fishery, the Council also included in Amendment 17 a process for reviewing fishing levels during the multi-year management period. These checkpoints would consider whether new science or assessment information should be used to alter harvest levels. The Council tasked the Groundfish Management Team (in consultation with the Scientific and Statistical Committee and Groundfish Advisory Subpanel) to develop thresholds for determining whether mid-process changes are necessary.

In recognition of the population dynamics of Pacific whiting and its management through transboundary agreements, the Council included an option for managing whiting on an annual basis.

Mr. Robert Lohn
May 14, 2003
Page 2

The Council requests your review, approval, and implementation of Amendment 17 (provided separately from this letter). Please call upon Mr. Dan Waldeck of the Council staff for any additional assistance you may need to complete the implementation process.

Sincerely,


for D. O. McIsaac, Ph.D.
Executive Director

JCC:dsh

c: Ms. Eileen Cooney
Ms. Paula Evans
Mr. Rod McInnis
Mr. Bill Robinson

5.7 Inseason Procedures for Establishing or Adjusting Specifications and Apportionments
(previously 5.9)

5.7.1 Inseason Adjustments to ABCs, OYs, HGs, and Quotas

Under the biennial specifications and management measures process, stock assessments for most species will become available every other year, prior to the November Council meeting that begins the three-meeting process for setting specifications and management measures. The November Council meeting that begins that three-meeting process will be the November of the first fishing year in a biennial fishing period. **If the Council determines that any of the ABCs or OYs set in the prior management process are not adequately conservative to meet rebuilding plan goals for an overfished species, harvest specifications for that overfished species and/or for co-occurring species may be revised for the second fishing year of the then current biennial management period.** Occasionally, new stock assessment information may become available inseason that supports a determination that an ABC no longer accurately describes the status of a particular species or species group. However, adjustments will only be made during the annual specifications process and a revised ABC announced at the beginning of the next fishing year.

The only exception is in the case where the ABC announced at the beginning of the fishing year **Beyond this process, ABCs, OYs, HGs, and quotas may only be modified in cases where a harvest specification announced at the beginning of the fishing period** is found to have resulted from incorrect data or from computational errors. If the Council finds that such an error has occurred, it may recommend the Secretary publish a notice in the *Federal Register* revising the **ABC incorrect harvest specification** at the earliest possible date.

NOTE: Gray highlight added for emphasis.

Agendum C.4.a
Attachment 4
September 2004



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7800 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

AUG 19 2003

RECEIVED

AUG 21 2003

PFMC

Mr. Donald Hansen, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place
Portland, OR 97220

Dear Mr. Hansen,

By this letter, I am approving Amendment 17 to the Pacific Coast Groundfish Fishery Management Plan (FMP). As you know, Amendment 17 revises the Pacific Fishery Management Council's (Council's) annual groundfish management process so that it becomes a biennial process with time for notice and comment rulemaking to implement the biennial specifications and management measures. Amendment 17 is intended to ensure that the specifications and management measures process responds to a court ruling in Natural Resources Defense Council, Inc. v. Evans, 316 F.3d 904 (9th Cir. 2002,) to make the Council's development process for specifications and management measures more efficient in order to allow time for other management activities, and to streamline the NMFS regulatory process for implementing the specifications and management measures. A proposed rule to implement Amendment 17 was published on June 13, 2003 (68 FR 35354), and we expect to have the final rule effective by October 31, 2003. Because Amendment 17 primarily addressed the Council process, the primary effect of the final rule to implement Amendment 17 will be to revise regulatory references to the annual groundfish management process.

Under the biennial management process introduced by Amendment 17, the groundfish specifications and management measures would be developed and recommended by the Council through a three-meeting process, usually November-April-June meetings. The Council's November 2003 meeting will mark the start of the Council process for developing 2005-2006 harvest specifications and management measures. You may recall that, when the Council adopted Amendment 17, it asked its Groundfish Management Team (GMT) to develop a process that would give the Council a mid-biennium checkpoint "to ensure that those harvest levels set in [the] earlier management process are adequately conservative to meet overfished species protection and conservation requirements." NMFS would be pleased to work with the Council in developing this checkpoint process for overfished species rebuilding.

NMFS appreciates the Council's efforts to improve the efficiencies of its management processes, particularly to accommodate NMFS's needs for providing an expanded notice and comment rulemaking for the groundfish specifications and management measures.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Robert Lohn".

D. Robert Lohn
Regional Administrator

Excerpt from Summary Minutes of the February 2003 GMT Meeting

P. Thresholds for Mid-Course Corrections to OYs During the Multi-Year Management Process

The Team was asked to recommend a methodology to react to survey results (or any new relevant information) in an off-year that is dramatically different from those previously considered to set OYs under multi-year management. The Team initially considered a percentage drop in biomass as a trigger for action but stock health is also dependent on the strength of individual age classes. However, survey results are highly variable and corrections should not be based on one survey alone. In addition to survey results changing, exceeding OYs in a given year could also be a reason for mid-course correction.

The Team proposed some modeling of future stock productivity to test the sensitivity of management measures or OYs to stock fluctuations but these efforts cannot begin until after this year's STAR panels. This issue needs to be more fully developed with input from the Science Centers and the SSC. Thresholds need to be established for adjustments for both decreasing and increasing stock sizes.

Table from the GMT Statement at the November, 2002 Council meeting:

Multi-year Management Timeline (Alternative 3, Amendment 17)							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Survey	A	B	C	D	E	F	G
Assessment		A		A-C*		A-E	
Management			A		A-C		A-E
Fishing				A	A	A-C	A-C

Mid-course assessments, like those in 'Year 4' in the above table, will be calculating an OY for the next two year period (Years 6 and 7) which is not directly comparable to the previously calculated OY for the current two year period. The only directly comparable values following the mid-course assessment would be things like biomass estimates.

The Council intent for the schedule is that the GMT will work on this in February for SSC review during the March meeting, and for Council and GAP consideration at the April meeting. The GMT has the discretion to change the schedule if this time line cannot be met (the November, 2003 Council meeting is the start of the initial multi-year management process). Even a relatively simple trigger will likely take all year to development given the current workload. If the end result is a COP change and not an FMP amendment the administrative workload would be less. A COP could be administered as a mechanism for management, but a NEPA analysis will be required to assess the effects of the decision.

Dr. MacCall proposed a scenario where the threshold consideration is a product of the STAR panel. There would then need to be a formal public process to address what actions, if any, need to be taken. He proposed the following steps:

- 1) Identify the potential issue, e.g., value of upcoming survey abundance
(Note: this can only apply to statistics than are not subject to behavioral modification, so something like CPUE cannot be used.)
- 2) Give the anticipated expected value, based on the current stock assessment. This is status quo.
- 3) Identify range of alternative values, +100%, -50% etc.
- 4) Do simulated assessment using alternative values of the survey abundance.
- 5) Give resulting biomass estimates. Assume F_{MSY} is unchanged.
- 6) Give resulting ABC values $B * F_{MSY}$.
- 7) Present to Council as an if-then action (could be based on ranges, or on a linear

formula, for example), which will be pre-decided at the time the first OY is adopted, and will be adopted automatically when the actual number comes in.

Do we need several thresholds, one for how a new assessment can change management, another for how catch deviations from expectations can change management? This is also a stock-specific situation. For some species for which we already do not attain OY, a large change in OY will not have any appreciable effect on management. Therefore, thresholds need to be considered on a case by case basis. If triggers or thresholds are set at too sensitive a level the process will slide back into annual management.

Stock assessment scientists would have a new task of looking forward to consider the likely range of future population trends. The GMT then would have a new task of considering what the management implications may be in response to the new stock assessment and these projections.

It is important to include in the NEPA document a range of possible threshold mechanisms and responses so that if a threshold is met, action needed to be taken can happen in an efficient manner. The threshold process should be kept fairly simple and automatic and should not require a huge workload given the other tasks ahead and the novelty of multi-year management. As the multi year program gets more institutionalized, a more complicated threshold and action process can evolve.

The GMT considered the possibility of exempting rebuilding species' OYs from mid-course correction. The only consideration would be if a rebuilding threshold is attained (B_{MSY}). However, if you do not develop thresholds for the species that are constraining fisheries, then the development of thresholds for other stocks has little use or value to management

Ms. Robinson reviewed the following threshold options for consideration:

- Only species not under rebuilding
- Any change (in either direction) that has significant effects- "case-by-case" basis
- Minimum change of 5-10% in OY (in either direction)
- Maximum change of 20% in OY (in either direction) as a cap on the amount of change allowed
- Include potential changes in NEPA documents when two one-year OYs are adopted for analytical purposes

A review of stock assessments over the last 10 years to estimate the variability in stock assessment results was proposed. It would be helpful to then see how often your mid-course corrections would have been made under various threshold policies. Dr. Hastie will work with staff at the NWFSC to determine the value of the work and to see what sort of resources are available for this exercise.

There could be need in the future, after initial review by the GMT and SSC, of holding a workshop with technical, industry and management people. The question of thresholds is more than a technical question and will have to be decided at a policy level as well.

Excerpt from Summary Minutes of the March 2003 SSC Meeting

Initial Review of Groundfish Management Team Multi-Year Management Mid-Point Review Thresholds

Dr. Hastie provided background information and reviewed GMT consideration of this issue. He noted that when the Groundfish Multi-year Management Process (Amendment 17) was adopted, the Council directed the GMT to recommend a methodology react to survey results (or any new relevant information) in an off-year that is dramatically different from those previously considered to set OYs under multi-year management.

In their February 2003 meeting summary, the GMT noted that thresholds need to be established for adjustments for both decreasing and increasing stock sizes.

The GMT developed several threshold options for consideration:

- *Only species not under rebuilding.*
- *Any change (in either direction) that has significant effects- "case-by-case" basis.*
- *Minimum change of 5% to 10% in OY (in either direction).*
- *Maximum change of 20% in OY (in either direction) as a cap on the amount of change allowed.*
- *Include potential changes in NEPA documents when two one-year OYs are adopted for analytical purposes.*

Dr. Hastie noted that the GMT preferred an automatic process rather than a discretionary process. Under multi-year management and using the mid-point review process, when management specifications are developed, an evaluation of potential mid-course corrections should be included in the management specifications environmental assessment or environmental impact statement. This would facilitate changes to the specifications, because the effects would have been analyzed previously and could possibly be treated as an inseason change.

Because of the amount of work involved, the GMT advised this process should be used prudently and only if major adjustments were needed.

The SSC agreed it would be critically important to have an automatic process where impacts and alternatives had been previously analyzed. The SSC suggested that past stock assessments be reviewed to determine how often the need for mid-course corrections could arise. The SSC also discussed their previous advice to the Council on multi-year management, "The SSC reiterates that it is most important to base management advice on results from stock assessments that use the most recent data. However, across the four biennial options considered, there is a substantial range in the timeliness of the scientific information that will be used to manage the groundfish fishery. Alternative 5 provides the most current information and is, therefore, the option preferred by the SSC" (Exhibit G.5.c, Supplemental SSC Report, November 2002). The SSC will continue to work with the GMT as the GMT develops the mid-point review process.