

# **Alternatives to Address Bigeye Tuna Overfishing Pacific Fishery Management Council November 2006**

## **1.0 Introduction**

This paper describes the range of alternatives for Pacific Fishery Management Council (PFMC) final action to address overfishing on bigeye tuna (*Thunnus obesus*) in the Eastern Pacific Ocean (EPO). (A version of this paper was posted on the Council's website on October 6, 2006, for public review; an updated version was posted on October 17.) The description of the alternatives has two components: 1) an overview of the action to be taken, and 2) as appropriate, draft FMP amendment language. The draft amendatory language shows how the text of the Fishery Management Plan for U.S. West Coast Fisheries for Highly Migratory Species (HMS FMP) would actually be changed to incorporate the elements of the alternatives as described. These substantive changes are in addition to a proposed non-substantive reorganization of the FMP. The whole reorganized FMP will be provided under separate cover.

### **1.1 Proposed Action**

The Pacific Fishery Management Council addresses overfishing of Pacific bigeye tuna (*Thunnus obesus*), by developing an amendment to the HMS FMP (Amendment 1) or by other means.

### **1.2 Purpose and Need for Action**

The purpose of the proposed action is to articulate a strategy that, together with Amendment 14 of the Fishery Management Plan for the Pelagic Fisheries of the Western Pacific (Pelagics FMP Amendment 14) would end overfishing of bigeye tuna throughout the Pacific Ocean. The specific actions to actually end overfishing would have to be developed by multilateral cooperation through appropriate regional fishery management organizations (RFMOs), and, as necessary, domestic regulation. This action is needed because both the PFMC and the Western Pacific Fishery Management Council (WPFMC) were notified by letter from National Marine Fisheries Service (NMFS) dated December 15, 2004, that the Secretary of Commerce had determined that overfishing of bigeye tuna was occurring Pacific-wide. As required by the Magnuson-Stevens Fishery Conservation and Management Act (MSA), and reflected in the implementing regulations for MSA National Standard 1 (50 CFR 600.310(e)(3)), both Councils were requested to take remedial action (i.e., recommend to NMFS an amendment to their respective fishery plans governing fishing for bigeye tuna) within one year of the identification by the Secretary.

## **2.0 History of Action**

### **2.1 PFMC Action**

In response to the overfishing determination, NMFS Southwest Region staff provided PFMC with an *Analysis of Management Options for Development of a Plan to End Overfishing of Pacific Bigeye Tuna in the Eastern Pacific Ocean* (Management Options paper) to support the development of a U.S. West Coast position on how to control fishing mortality of bigeye tuna in the EPO. (This paper was originally provided as Agenda Item G.1.a, at the April 2006 PFMC meeting and is included here as Appendix A.) In April 2006, PFMC adopted the recommendations of the Highly Migratory Species Management Team (HMSMT), which were based on this management options analysis. These recommendations were

forwarded to the U.S. delegation to the Inter-American Tropical Tuna Commission (IATTC) in advance of their June 2006 meeting, and to the WPFMC. The U.S. West Coast recommendations adopted are as follows:

- The actions described in Management Option 3 (See Management Options paper referenced above) with the exclusion of an exemption for fleets that catch one percent or less of the total Pacific bigeye tuna landings described under that option. PFMC may reconsider application of such an exemption, but believes that at this point there is insufficient information available to define the full necessities of such an exemption;
- Establish a definition for a nation's fleet which includes all of the vessels fishing under one nation regardless of area, or gear type;
- Establish an exemption for U.S. small purse seine vessels (less than 400-short ton carrying capacity) that fish in the near shore environment of the coast of California. These vessels primarily target coastal pelagic species (anchovy, sardine, mackerel), but occasionally fish for tropical tunas when these species enter West Coast waters during the months of May through October. A similar exemption could be applied to other gear types or sectors that incidentally catch negligible amounts of bigeye tuna; and
- Support international action (as opposed to unilateral action) that would end bigeye tuna overfishing in the EPO.

## **2.2 Subsequent IATTC Action**

The IATTC has since adopted Resolution C-06-02, *A Resolution for a Program on the Conservation of Tuna in the Eastern Pacific Ocean for 2007* (Appendix B). This resolution contains similar management requirements for the purse seine fishery as the previous resolution (Resolution C-04-09) (Appendix C); however, a change in longline requirements was issued. The U.S., along with other smaller IATTC parties, was granted an annual catch of 500 mt of bigeye, or their respective 2001 catch levels, whichever is higher.

## **2.3 WPFMC Pelagics FMP Amendment 14**

Subsequent to the overfishing notification, WPFMC developed Pelagics FMP Amendment 14. This document is currently under review by NMFS Pacific Islands Regional Office. NMFS is expected to make a final decision to approve, disapprove, or partially approve Amendment 14 in early 2007. Amendment 14 addresses overfishing of bigeye tuna throughout the Pacific Ocean.

WPFMC, after receiving PFMC's West Coast position addressing bigeye tuna overfishing in the EPO, described above, revised Amendment 14 to reflect PFMC's position. The updated version of Amendment 14 now includes the estimated reductions in fishing mortality that would be required to end overfishing of bigeye tuna Pacific-wide. Amendment 14, in accordance with PFMC's recommendations to reduce fishing on bigeye in the EPO, comports with the conservation and management recommendations put forth by staff scientists of the IATTC.

Amendment 14, if approved by NMFS, would not amend the West Coast HMS FMP, impose regulations on West Coast fishermen, or transfer any authority to the WPFMC. If Amendment 14 is approved, then it could be considered the Pacific-wide approach to ending bigeye tuna overfishing. An action (such as an FMP amendment) by PFMC to address overfishing in the EPO would be considered in the context of Amendment 14, if approved.

## **3.0 Range of Alternatives**

Considering previous PFMC discussion and recommendations, along with particular items contained in Amendment 14, NMFS, in coordination with PFMC staff prepared a range of alternatives for Council consideration, which are described in this section. Subsequent action will include PFMC taking final action to adopt a preferred alternative at the November 2006 Council meeting, after which regulatory action may be required.

The preferred alternative is one that would be expected to achieve the following objectives for the proposed action:

- Meet the requirement under the MSA to end overfishing of Pacific bigeye tuna Pacific-wide; and
- Establish management protocol for both Councils to participate in the development and implementation of U.S. proposals for international management.

### **3.1 Alternative 1 (No Action)**

PFMC would not develop an FMP amendment to end overfishing in the EPO in support of a Pacific-wide strategy, nor submit comments, or participate in the future development and input of recommendations on the conservation and management of Pacific bigeye to the U.S. Department of State, or the U.S. delegation to the IATTC.

#### *3.1.1 Comments and Considerations*

IATTC staff scientists determined that under the current exploitation patterns, and assuming recruitment at recent average levels, yields of bigeye tuna are expected to decline to levels below the average maximum sustainable yield (AMSY), potentially leading to an overfished condition in the near future.

If PFMC chooses Alternative 1, (i.e., fails to implement measures that would end overfishing) and no other plan is adopted that ends overfishing (such as Pelagics FMP Amendment 14), NMFS would be obligated under the MSA to develop a Secretarial amendment to end overfishing. Furthermore, without substantial international action, it is likely that a continued decline in Pacific bigeye stock is likely, and would lead to an overfished status. If Pelagics FMP Amendment 14 were determined to be sufficient to end overfishing, and is approved by NMFS, that plan could serve as the sole plan to end overfishing.

#### *3.1.2 FMP Amendment Text*

Because the FMP is not amended to include a Council strategy to end bigeye tuna overfishing in the EPO, no amendment text is offered.

### **3.2 Alternative 2: Previous PFMC Actions Taken**

Under Alternative 2, PFMC would expand on previous actions taken at their April 2006 meeting in Sacramento, California, by adopting an FMP amendment based on them. Specifically, Alternative 2 includes the actions as they appear in Management Option 3 of the Management Options paper (Appendix A), as modified by the recommendations provided by the HMSMT, which formed the basis of the West Coast position that is referenced above. (The HMSMT report, including their recommendations, is provided as Appendix D.) In comparison to Management Option 3, this excludes the exemption for fleets that capture 1 percent or less of the total Pacific bigeye tuna landings and includes a definition of national fleet in the HMS FMP, consistent with PFMC's April 2006 recommendations.

### 3.2.1 *Comments and Considerations*

The specific EPO recommendations described in the Management Options paper, which formed the basis of the West Coast position, are a result of recommendations that staff scientists at the IATTC made for a multi-annual program for the conservation of tunas in the EPO. Those measures were specific to the conservation of bigeye (and yellowfin) tuna in years 2004–06. Since that time, IATTC staff scientists have determined that the restrictions included in Resolutions C-04-09 will not be sufficient to improve stock status and therefore in June of 2006 issued a more conservative recommendation for a future resolution to cover years 2007–09. If PFMC chooses Alternative 2 as their preferred alternative, the recommended restrictions and reductions in effort included in the Management Options paper and the West Coast position may need to be updated to reflect the more recent IATTC staff scientists' conservation and management recommendations. The recommendations in Alternative 2 address overfishing in the EPO only, which by itself, would not meet the requirement of ending overfishing Pacific-wide. However, in concert with Pacific-wide strategy in Pelagics FMP Amendment 14 these recommendations would meet that requirement.

Also of consideration, if NMFS approves Pelagics FMP Amendment 14, which deals with overfishing Pacific-wide, and then is confronted with a different recommendation for the EPO from the PFMC, then that may put NMFS in a position where it would need to consider both plans and possibly try to harmonize them.

If PFMC chooses Alternative 2 as their preferred alternative, next steps would include PFMC staff developing an Environmental Assessment (EA) in accordance with the requirements of the National Environmental Policy Act (NEPA), to assess the impacts on the human environment that may result from the proposed Federal action described in Section 1.0.

### 3.2.2 *FMP Amendment Text*

Text would be added to the HMS FMP at the end of Chapter 4, which under the proposed reorganization is entitled Preventing Overfishing and Achieving Optimum Yield:

Both the Pacific and Western Pacific Fishery Management Councils were notified by letter from NMFS dated December 15, 2004, that the Secretary of Commerce had determined that overfishing of bigeye tuna was occurring Pacific-wide. In response, the Council has articulated a strategy that, together with Amendment 14 of the Fishery Management Plan for the Pelagic Fisheries of the Western Pacific, would end overfishing of bigeye tuna Pacific-wide. The specific actions to actually end overfishing would have to be developed by multilateral cooperation through appropriate regional fishery management organizations (RFMOs), and, as necessary, domestic regulation.

The Council's strategy to end overfishing on bigeye tuna addresses overfishing in the EPO is part of a coordinated Pacific-wide strategy, which includes recommendations made by the WPFMC for fisheries in the WCPO. The elements of the Council's strategy are described below.

As part of its strategy the Council recognizes that restrictions applied to a single fishery are insufficient to allow the stock to achieve average MSY (AMSY). Therefore, restrictions on both longline and purse-seine fisheries are necessary to rebuild the stock to the AMSY level in ten years.

Working through the IATTC, the U.S. will develop measures to achieve a large (in the neighborhood of 50 percent) reduction in bigeye effort from the purse-seine fishery to allow the stock to rebuild towards the AMSY level in ten years. The Council, working through NOAA, will recommend to the Department of State that this should be achieved through a combination of the following management

measures:

- Continuation on an annual basis, as necessary to end overfishing and achieve AMSY, a six-week purse seine fishery closure in the EPO consistent with the measures described in IATTC Resolutions C-04-09 and C-06-02. The resolutions allow member nations to choose between two different consecutive six week periods to close their purse seine fishery in the Convention Area. The closure is intended to target fishing activity that results in high catches of juvenile tuna, and thus the closure should result in improved yields from the stock in subsequent years.
- Reduction of purse seine fishing effort on Pacific bigeye by 50 percent on an annual basis, as necessary to end overfishing and achieve AMSY, with one or more of the following management measures:
  - Close the purse seine fishery for six consecutive months in the area between 8° N and 10° S latitude west of 95° W longitude; and/or
  - Close the purse seine fishery on floating objects (including fish aggregation devices, or FADs) for six consecutive months in the area west of 95° W longitude; and/or
  - Limit the total annual catch of bigeye by each purse seine vessel that is required to carry an observer to 500 metric tons, estimated either by the observer or, at the request of the fishing vessel's captain, by scientific sampling of the vessel's catch conducted by IATTC staff at the time of unloading. If this latter option is chosen, the vessel would be responsible for the costs of the sampling.
  - These additional purse seine fishery closures would not occur simultaneously with the six-week EPO closure described above.

For EPO longline fisheries, the Council's strategy is to reduce and hold catches by all nations to 1999 levels, as necessary to end overfishing and achieve AMSY. The Council makes no recommendation on a formula to exempt nations whose longline fisheries represent a small proportion of total EPO bigeye catch. However, the Council does not oppose the exemption formula outlined in IATTC Resolution C-06-02.

The Council recommends that the U.S. work with the IATTC to establish an annual international fishing quota (total allowable catch) which would be subdivided among all IATTC Parties, cooperating non-parties, fishing entities, or regional economic integration organizations (collectively "CPCs") catching bigeye tuna in the EPO. Each CPC's quota will be based on national catch history.

The Council recommends that the U.S. work with the IATTC to develop, as appropriate, minimum size limits to reduce fishing mortality on juvenile bigeye tuna.

For the purposes of the Council's strategy, a national fleet comprises all vessels sailing under a given nation's flag that target HMS in the Pacific Ocean. The Council does not advocate defining sub-national fleets based on gear type, area fished, or other criteria. This definition of national fleet would be applicable when assigning any national quotas that may be established by multilateral agreement.

Notwithstanding the preceding definition of national fleet, under the Council's strategy, the U.S. would exempt coastal purse seine vessels from the definition of the national fleet for the purpose of allocating any national quota or applying other measures that are part of this strategy. Coastal purse seine vessels are generally defined as those vessels holding a CPS limited entry permit as described at

50 CFR 660.512 and/or less than 400 short tons carrying capacity.

The Council may modify elements of its strategy, consistent with recommendations from IATTC staff or other scientific advisory bodies (such as the Council's SSC), in order to further support ending overfishing on bigeye tuna in the EPO and Pacific-wide.

### **3.3 Alternative 3: Adopt Elements of Amendment 14 Specific to EPO Management**

Under Alternative 3, PFMC would adopt elements contained within International Alternative 2 (end overfishing immediately) of Pelagics FMP Amendment 14 that address overfishing of bigeye tuna in the EPO. The analysis of fishing effort reductions contained in International Alternative 2 states that it is expected that this alternative would achieve the objective and result in the most rapid improvement to the bigeye tuna stock. The WPFMC notes that if resource conditions change significantly, the Councils and RFMOs may make additional recommendations in response.

Under the WPFMC's International Alternative 2, the PFMC and WPFMC would work together to develop and deliver recommendations to the delegations to the Pacific RFMOs to reduce international fishing mortality as recommended by the scientific staff of the IATTC, which has the potential to result in the most immediate reduction of international overfishing on Pacific-wide bigeye tuna. To achieve this, both Councils would need to coordinate on future recommendations for reductions in bigeye tuna and/or other tropical tuna fishing mortality to NMFS, the Department of State, and the U.S. delegations to the Pacific tuna RFMOs. Such action would ensure that both Councils are informed and afforded the opportunity to substantively participate in a unified manner in all activities leading up to the development and implementation of U.S. proposals for international management. Pelagics FMP Amendment 14 suggests a protocol by which such future recommendations can be developed and delivered, which is outlined in Appendix E.

#### *3.3.1 Comments and Considerations*

The preferred alternative in Amendment 14 (International Alternative 2) contains recommendations made by IATTC staff scientists and reviewed by NMFS' Pacific Islands Fishery Science Center, and preliminarily considered to be sufficient to end overfishing Pacific-wide, per the charge contained in the notification letter dated December 15, 2004, by the Secretary.

If PFMC chooses Alternative 3 as their preferred alternative, and NMFS approves Amendment 14 as the Pacific-wide approach to ending overfishing on bigeye tuna, and makes a "finding of no significant impact" (FONSI) based on the EA contained within Amendment 14, then PFMC/NMFS would likely not have to prepare an additional EA. Agency guidance, NOA 216-6, section 6.03a(4), Special Circumstances, would apply: "Management plan amendments may address an action that has been fully analyzed by a previous EIS or EA. These actions cannot expand the original action and the previously reviewed action.... These actions require only a new FONSI statement based on the existing NEPA document(s)."

#### *3.3.2 FMP Amendment Text*

Text would be added to the HMS FMP at the end of Chapter 4, which under the proposed reorganization is entitled Preventing Overfishing and Achieving Optimum Yield:

Both the Pacific and Western Pacific Fishery Management Councils were notified by letter from NMFS dated December 15, 2004, that the Secretary of Commerce had determined that overfishing of bigeye tuna was occurring Pacific-wide. In response, the Council has articulated a strategy that,

together with Amendment 14 of the Fishery Management Plan for the Pelagic Fisheries of the Western Pacific, would end overfishing of bigeye tuna Pacific-wide. The specific actions to actually end overfishing would have to be developed by multilateral cooperation through appropriate regional fishery management organizations (RFMOs), and, as necessary, domestic regulation.

The Council's strategy to end overfishing on bigeye tuna addresses overfishing in the EPO is part of a coordinated Pacific-wide strategy, which includes recommendations made by the WPFMC for fisheries in the Western and Central Pacific Ocean (WCPO). The elements of the Council's strategy are described below.

As part of its strategy the Council recognizes that restrictions applied to a single fishery are insufficient to allow the stock to achieve average MSY (AMSY). Therefore, restrictions on both longline and purse-seine fisheries are necessary to rebuild the stock to the AMSY level in ten years.

The Council recommends that the U.S. work with the IATTC to establish management goals to guide any necessary reductions in fishery-specific catch/effort in the EPO. These goals will be consistent with IATTC staff recommendations and a Pacific-wide strategy that includes the WPFMC recommendations. For 2007, IATTC staff recommended a 38 percent reduction in purse seine fishery effort on floating objects (including fish aggregation devices, or FADs) in the EPO. The WPFMC strategy is intended to be consistent with IATTC staff recommendations and additionally includes a reduction in longline fishery effort in the EPO by 30 percent from current levels. Specific catch/effort management goals may be revised over time to be consistent with changes in stock status.

For EPO longline fisheries, the Council's strategy is reduce and hold catches by all nations to 1999 levels, as necessary to end overfishing and achieve  $B_{MSY}$ .

As part of any limits on longline catches, the strategy includes a formula to exempt nations whose longline fisheries represent a small proportion of total EPO bigeye catch. Any of the following terms could be used singly or in combination in such a formula:

- Exempt fleets that take less than 1 percent of the total bigeye tuna catch in the EPO.
- For fleets that take less than 1 percent of the total bigeye tuna catch in the EPO provide an annual quota of 500 mt for the 2007-2009 period.
- Exempt fleets that catch less than 550 mt of bigeye tuna annually in the EPO.
- Provide the U.S. longline fleet with a quota of 250 mt of EPO bigeye tuna.
- Exempt U.S. longline vessels not targeting bigeye tuna in the EPO from the annual bigeye quota.

Notwithstanding these terms, the Council does not oppose the exemption formula outlined in IATTC Resolution C-06-02.

An additional exemption would permit the landing of a small volume of bigeye (e.g., 20-25 fish) when a quota is exceeded to minimize bycatch and waste by longliners not targeting bigeye.

Any measures agreed to through the IATTC or other multilateral agreement should provide sufficient flexibility for nations to administer the longline quota in accordance with national legislation and sovereignty. This provision accommodates domestic allocation of national quotas through the

Council process.

The Council may modify elements of its strategy, consistent with recommendations from IATTC staff or other scientific advisory bodies (such as the Councils' SSC), in order to further support ending overfishing on bigeye tuna in the EPO and Pacific-wide.

In addition, text would be added to the HMS FMP at the end of Chapter 5, which under the proposed reorganization is entitled Periodic Specification of Management Measures:

The Council may develop an Operating Procedure to facilitate effective coordination and communication of management advice, in concert with the WPFMC and through the appropriate U.S. delegation, between the Councils and RFMOs involved in HMS management in the Pacific Ocean. The Operating Procedure may include specific decision-making schedules and criteria in order to harmonize PFMC, WPFMC, and RFMO processes.

### **3.4 Alternative 4: Concurrence with Pelagics FMP Amendment 14**

Under this alternative, PFMC notifies NMFS that it recognizes Pelagics FMP Amendment 14 as the sole Pacific-wide response to bigeye tuna overfishing. This concurrence would be made in writing and NMFS would describe, for the record, how this action sufficiently addresses the original notification of bigeye overfishing. PFMC does not amend the HMS FMP but could continue to make recommendations to NOAA and, through the appropriate U.S. delegation, to RFMOs on measures to end overfishing of bigeye tuna in the EPO and/or Pacific-wide. Under the HMS FMP, PFMC would continue to consider and develop appropriate management measure to govern U.S. West Coast-based fisheries that harvest bigeye tuna.

#### *3.4.1 Comments and Considerations*

Discussion at the September Council meeting indicated that PFMC concurrence with Pelagics FMP Amendment 14 was a viable response to the original overfishing notification. This alternative would result in no change in the statutory authority and obligation of the PFMC to develop management measures to govern fisheries under the HMS FMP. Unlike Alternative 3 (or Alternative 2) the Council strategy would not be articulated in the HMS FMP. This approach is contingent on ultimate Secretarial approval of Pelagics FMP Amendment 14. The workload associated with this option would be less than Alternatives 2 and 3 because no FMP amendment would need to be transmitted and, like Alternative 3, it would not be necessary to prepare an EA.

#### *3.4.2 FMP Amendment Text*

Because the FMP is not amended to include a Council strategy to end bigeye tuna overfishing in the EPO, no amendment text is offered.

## **4.0 References**

Inter-American Tropical Tuna Commission. 2004. Resolution C-04-09: Resolution for a multi-annual Program on the Conservation of Tuna in the Eastern Pacific Ocean for 2004, 2005, and 2006. [http://www.iattc.org/PDFFiles2/C-04-09\\_Tuna\\_conservation\\_2004-2006.pdf](http://www.iattc.org/PDFFiles2/C-04-09_Tuna_conservation_2004-2006.pdf).

Inter-American Tropical Tuna Commission. 2006. Document IATTC-74-05 Staff Recommendations on Conservation. Presented at the 74<sup>th</sup> annual meeting in Busan, Korea. <http://www.iattc.org/PDFFiles2/IATTC-74-05-Staff-conservation-recommendations-2006.pdf>.

Inter-American Tropical Tuna Commission. 2006. Resolution C-06-02: Resolution for a Program on the Conservation of Tuna in the Eastern Pacific Ocean for 2007. <http://www.iattc.org/PDFFiles2/C-06-02-Conservation-of-tunas-2007.pdf>.