August 12, 2005

Bill Robinson
National Marine Fisheries Service
Pacific Islands Area Office
1601 Kapiolani Blvd. #1110
Honolulu, HI 96814

Dear Bill:

On behalf of the Western Pacific Fishery Management Council (Council), thank you for the opportunity to review and provide comments on NMFS’s draft paper entitled “Strategy to end overfishing of bigeye tuna in the Pacific Ocean, Draft May 19, 2005.” The Council has presented its comments in the form of proposed revisions to the draft paper, which are attached. Following is a summary of the major points addressed through the Council’s proposed revisions.

Overview of Council Comments

The Council generally agrees with the approach taken in the draft strategy and the emphasis placed on the need for international cooperation to resolve the Pacific-wide overfishing problem. The Council believes, however, that the paper could be strengthened and clarified with respect to the underlying legal requirements and the respective roles of the Department of State (DOS), the National Marine Fisheries Service (NMFS), and the Council in meeting those requirements. The Council also believes that the Magnuson-Stevens Fishery Conservation and Management Act’s (MSFCMA) goals and objectives should be more clearly set forth and incorporated into the proposed strategy. Accordingly, the Council’s proposed revisions are generally aimed at clarifying three issues: (1) the governing legal requirements as set forth in the MSFCMA; (2) the roles of DOS, NMFS, and the Council; and (3) the goals and objectives of the MSA as they apply both domestically and in the international forums.

Controlling Legal Requirements

It is the Council’s understanding that the primary impetus for the proposed bigeye strategy is NMFS’s determination, made pursuant to § 304(e) of the MSFCMA, that the bigeye species is subject to overfishing. The requirements of the MSFCMA therefore provide the underlying basis for the proposed strategy and should be clearly stated.

References to the Council are intended to include the Pacific Fishery Management Council where appropriate.
Pursuant to the MSFCMA, NMFS’s overfishing designations should pertain to “fisheries within each Council’s geographical area of authority.” When overfishing is found to be occurring, the relevant council’s obligation is to end overfishing “in the fishery” – that is, the fishery under council jurisdiction. In this regard, the Council believes that an important – and legally required – component of the proposed strategy should be Council action to determine whether and to what extent the fisheries under its jurisdiction are causing or contributing to the Pacific-wide overfishing problem and considering whether remedial actions are appropriate. The Council also fully supports and intends to pursue efforts to end overfishing Pacific-wide, so as to further the MSFCMA’s objective of achieving the optimum yield from Council-managed fisheries. However, the Council does not believe that the MSFCMA imposes on either it or NMFS a legal obligation to end overfishing in fisheries that are not under U.S. jurisdiction.

The Council’s proposed revisions to the strategy are intended to clarify the legal basis for the proposed actions and the mandates of the MSFCMA. An example is the suggested change to the strategy objective on page 1. Other suggested minor revisions (e.g., deletion of references to yellowfin and to rebuilding schedules) are intended to enhance the clarity of the strategy by keeping the focus on the strategy’s primary purpose and objectives.

Roles of DOS, NMFS, and the Council

The Council has proposed revisions to the bigeye strategy intended to emphasize the complementary roles of DOS, NMFS, and the Council in addressing overfishing. Because bigeye in the Pacific are subject to a patch-work of domestic laws and international agreements, collaboration among policy-makers and management authorities is critical to implementing a comprehensive strategy. As you are aware, at its 127th meeting (June, 2005), the Council recommended amending the Pelagics FMP to include a non-regulatory protocol describing the Council’s role in the international management of Pacific highly migratory stocks, which includes a specific process for addressing the Pacific-wide bigeye overfishing issue. As stated in the protocol, the Council intends to actively participate with DOS and NMFS in working toward international solutions to this international problem. The Council has made suggested revisions to the draft strategy to highlight this course of action. This complements the actions proposed in the white paper.

Goals and Objectives of the MSFCMA

The underlying basis for the overfishing strategy is National Standard 1 of the MSFCMA, which requires that the Council manage its fisheries to achieve optimum yield while preventing overfishing. Engaging in multi-lateral efforts to end Pacific-wide overfishing will further both of these goals. The proposed strategy should emphasize this important objective.

The MSFCMA also contains objectives relevant to international fishery agreements that should be stated. For example, international agreements should provide equitable opportunities for fishery participants and should take historical participation into account. The U.S. has a long-term bigeye catch history that must be considered in the context of any proposed catch-reduction strategies. Equitable treatment of U.S. fishery participants can also be furthered by encouraging the spread to foreign fleets of the bycatch reduction and species conservation measures used by U.S. fishermen. Participation in the WCPFC and IATTC provides an
opportunity to seek Pacific-wide use of the innovative gears and technologies used domestically to meaningfully further conservation of sea turtles, seabirds, and other species.

Finally, the Council suggests that scientists from the Pacific Islands Fisheries Science Center be asked to review the paper’s Appendices A and B for accuracy, and notes that Appendix C seems unclear in its intent, for example several existent management measures are missing and others are wrongly classified.

In summary, the Council supports the comprehensive approach set out in the draft strategy and commends NMFS and its staff for their thorough review of the overfishing problem. With the minor clarifications and revisions suggested, the Council believes that the strategy will provide a scientifically and legally sound framework for future action.

The Council appreciates this opportunity to assist in formulating a comprehensive strategy to address Pacific-wide overfishing of bigeye tuna and looks forward to working cooperatively with NMFS to implement this strategy.

Sincerely,

Kitty M. Simonds
Executive Director

enc: Proposed revisions to May 19, 2005 draft white paper

cc: Council Members
    Bill Hogarth, NMFS
    Rebecca Lent, NMFS
    Dave Balton, Department of State
    Don McIsaac, Pacific Council
Strategy to address overfishing of bigeye tuna in the Pacific Ocean

Draft August 12, 2005

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1. Introduction

The bigeye tuna is a highly migratory species that occurs throughout the Pacific Ocean and is targeted by the fishing fleets of many nations. It has recently been determined by NMFS to be subject to overfishing on a Pacific-wide basis. Because bigeye tuna and other highly migratory species (HMS) do not recognize the boundaries that management, policy, and science have established, reducing Pacific-wide fishing mortality of bigeye tuna will take coordination and cooperation among the many entities charged with responsibility for conservation and management of bigeye tuna, both domestically and internationally, through and across the Pacific Ocean. This document provides an outline of U.S. strategy for bigeye tuna conservation and management in the Pacific Ocean. The objectives are to ensure that fisheries under U.S. jurisdiction do not cause or significantly contribute to the overfishing problem and to achieve implementation of multi-lateral conservation and management measures to eliminate overfishing Pacific-wide. The strategy describes how the Department of State (DOS), the relevant domestic fishery management authorities, including the NOAA Fisheries Service (NMFS) , the Western Pacific Fishery Management Council (WPFMC), and the Pacific Fishery Management Council (PFMC) (collectively, Councils), as well as other stakeholders, will work cooperatively with regional fishery management organizations (RFMOs) to achieve these goals.

Several recent institutional developments are of special importance with respect to multi-lateral conservation and management of bigeye tuna in the Pacific Ocean. The Inter-American Tropical Tuna Convention (IATTC), which covers tuna fishing activities in the eastern Pacific Ocean, was recently renegotiated (resulting in the 2003 Antigua Convention) and the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC) entered into force in June 2004, forming the Commission by the same name (WCPFC).\(^1\) Also, the NMFS offices in Honolulu have been raised to Regional status, enhancing the agency’s ability to represent the particular interests of the U.S. fisheries in the western and central Pacific Ocean (WCPO), along with the WPFMC and the PFMC, in these conventions.

\(^1\) Neither of these conventions (Antigua Convention and the WCPFC) have been cleared and approved by the Senate or Administration, nor have the respective acts appeared in Congress.
To provide the context for this strategy, the stock status, the contribution of U.S. fisheries to Pacific-wide fishing mortality, the sources of U.S. fishing mortality, the current regulatory framework for HMS in the Pacific, and existing conservation and management measures relevant to bigeye tuna are described in appendices to this document. The action items identified at NMFS’ HMS Summit in August 2004 are provided in a final appendix.

2. **Strategy to address overfishing**

Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the WPFMC and the PFMC must take action to address overfishing in the fisheries under their respective jurisdictions. At the same time, they must promote conservation and management measures that will result in the optimum yield (OY) from the domestic fisheries. The Pacific-wide distribution of bigeye tuna and the scope of the fisheries (international and domestic) exploiting this important species dictate that the U.S. have a Pacific-wide strategy to address overfishing that can be effectively implemented at the international level in order to achieve these objectives. Because U.S. vessels are responsible for only a small portion of stock-wide bigeye fishing mortality (approximately 2% of the Pacific-wide total catch), unilateral measures cannot remedy the overfishing problem. Also, unilateral restrictions on domestic bigeye catch would likely result in increased bigeye imports rather than an overall reduction in bigeye mortality. This reinforces the need for the U.S. to work with its international partners if there is to be improvement in the status of bigeye tuna.

The current governance structures established under the Antigua Convention and the WCPFC provide the vehicles and rationale for the strategy. Although the U.S. has not yet formally ratified these conventions, the Magnuson-Stevens Act confers on DOS and NMFS authority to engage in negotiations to achieve international fishery agreements for the conservation and management of HMS and confers on the WPFMC and the PFMC broad authority to undertake activities necessary to further the Magnuson-Stevens Act’s objective of achieving OY while preventing overfishing. Also, legislation implementing the original IATTC convention provides authority for regulatory implementation of measures agreed to under the IATTC’s auspices. Given the nature and composition of the relevant RFMOs in the Pacific Ocean, the U.S. will need to be flexible in order to be successful in its efforts to have these bodies adopt conservation and management measures that will help ensure the long-term sustainability of bigeye tuna. This strategy could have implications beyond the specifics of the Pacific bigeye tuna resource and ideally will provide a template for other trans-boundary species. The strategy is deliberately intended to be flexible and subject to modification as time and events progress.

The strategy to address Pacific-wide overfishing of bigeye tuna is to work through the relevant RFMOs, to develop and implement conservation and management measures throughout the Pacific Ocean to reduce fishing mortality. Specifically, the U.S. will seek from the RFMOs, particularly the IATTC and the WCPFC: 1) continued improvement in the utility of stock assessments, including the establishment of programs to collect catch and effort data from all tuna fishing fleets operating in the Pacific Ocean, 2) the adoption of appropriate reference points and associated control rules, 3) the adoption and effective implementation of appropriate conservation and management measures, and 4) adequate monitoring, control, and surveillance.
(MCS) to ensure an adequate degree of compliance with conservation and management measures.

The U.S. will develop its proposals to the RFMOs through a collaborative process involving NMFS, DOS, the Councils, commercial and artisanal tuna fishing and processing interests, recreational fishing interests, environmental interests, and other stakeholders. Finally, NMFS and the Councils will work together to ensure that internationally agreed upon measures for bigeye tuna are implemented domestically, and that any other necessary and appropriate actions are taken to ensure that the domestic fisheries do not cause or significantly contribute to Pacific-wide bigeye overfishing.

**Stock Assessments:** The U.S. will promote and support efforts to conduct pan-Pacific stock assessments that provide appropriate region-specific information. More generally, the U.S. will support efforts to determine the most appropriate units for both stock assessment and management (given the population structure of bigeye tuna in the Pacific, the institutional structure of HMS management in the Pacific, and other relevant factors). The U.S. will promote and support efforts to improve the quality and timeliness of fisheries data collection by IATTC and WCPFC member states and cooperating non-parties throughout the Pacific in order to improve the quality and timeliness of stock assessments. The U.S. will also work to ensure that stock assessment results are expressed using the same measures as the reference points established by the RFMOs, or lacking such reference points, the reference points established in the relevant fishery management plans (FMPs) established under the Magnuson-Stevens Act.²

**Reference Points:** The national standards established in the Magnuson-Stevens Act are important principles in developing U.S. proposals to the RFMOs. With respect to preventing and ending overfishing of stocks managed by the RFMOs, the U.S. will seek RFMO decisions and resolutions that, to the extent practicable, are consistent with National Standard 1 of the Magnuson-Stevens Act and its guidelines as codified in 50 CFR Part 600 Subpart D. In particular, the U.S. will continue to promote the establishment and application of consistent reference points and associated control rules.³ These include limited reference points (such as minimum stock size thresholds and maximum fishing mortality thresholds) as well as target and/or warning reference points that incorporate the need to be risk averse with respect to overfishing. The U.S. will seek to ensure that these reference points are accompanied by control rules calling for prompt and sufficient remedial action when needed.

**Conservation and Management Measures:** With respect to the IATTC, the U.S. will fulfill its obligation to implement the conservation resolution adopted at the IATTC June 2004 meeting (Resolution C-04-09) while taking further actions to assure that catch restrictions are both necessary and equitable to U.S. fishers. The resolution includes two conservation measures, both of which are applicable in the years 2004, 2005 and 2006. The first measure offers each Party a

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² The Standing Committee on Tuna and Billfish started including the relevant measures (B/Bₘₛᵧ and F/Fₘₛᵧ) in its assessment reports in 2003, coincident with the adoption of the current stock status determination criteria in the Fishery Management Plan for the Pelagic Fisheries of the Western Pacific Region.

³ Although there is little contention about the utility of adopting and applying reference points and control rules, there is considerable debate within the scientific community about the appropriateness for HMS stocks, of functionally basing reference points on MSY.
choice for closing its purse seine fishery in the convention area: a six-week closure beginning either August 1 or November 20 (in 2004 the U.S. chose the November 20 start date). The closure is intended to target fishing activity that results in relatively high catches of juvenile bigeye tuna. The second measure limits each nation’s annual longline bigeye tuna catch in the convention area to the 2001 national catch level (for the U.S., NMFS determined this to be 150 mt, and in 2004 the fishery was closed on December 13 for the remainder of the year). The resolution also includes a compliance measure that prohibits making landings, transshipments, or commercial transactions involving tunas caught in contravention of either of the two conservation measures.

In the course of the 2004 stock assessment for the eastern Pacific Ocean (EPO) simulations were used to make projections of bigeye tuna biomass with and without the two conservation measures (Harley and Maunder 2004). It was found that even if fully implemented for ten years, the measures would have little effect on spawning biomass in the EPO: spawning biomass would remain well below the level associated with average MSY. The U.S., therefore, will continue to work multi-laterally to devise and promote appropriate conservation and management measures that would, in tandem with measures adopted by the WCPFC, reduce bigeye tuna fishing mortality to the extent needed in the appropriate areas and sectors to address overfishing in the Pacific Ocean.

In December 2004, the WCPFC parties agreed that analyses will be completed prior to the December 2005 Commission meeting that will consider several potential conservation and management measures to reduce fishing mortality on bigeye tuna. The measures considered will be based upon those suggested by the U.S. at the first session of the WCPFC which have been identified by the Scientific Coordinating Group as being feasible (i.e., adequate data are available to assess the results on the stocks), and will also incorporate protocols developed by the Councils for addressing international management issues. The preliminary results will be presented at the WCPFC’s first Science Committee meeting, in August 2005, and then given to the WCPFC at its second annual session, in December 2005, at which point the Commission may adopt one or more of the measures. The analysis will include:

- Five- and ten-year projections of total biomass and spawning stock biomass for bigeye tuna under 2003 catch and effort levels and under various possible scenarios of changes in catch and effort (i.e., separate analyses of catch limits and effort limits) in the Convention Area for the purse seine, longline and other surface fisheries that have an impact on bigeye tuna (both separately and combined), including the effects on bigeye tuna stocks of possible time/area closures by fishing method.

- The effects on the stocks of measures to mitigate the catch of juvenile bigeye tuna, including controls on setting on floating objects.

The U.S. will continue its support of these and future evaluations commissioned by the WCPFC, with the aim of refining the range of promising management alternatives and eventual adoption.

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of effective management measures for bigeye tuna by the WCPFC. Absent the completion of the analysis cited above it is premature for the U.S. to consider recommendation or endorsement of any specific conservation and management measure. In accordance with the principles set forth in the Magnuson-Stevens Act, the U.S. will work to ensure that any measures proposed for domestic implementation reflect the historic participation of the U.S. in the bigeye tuna fishery and also take into account the bycatch reduction measures employed by U.S. fishers and seek to establish comparable measures internationally.

**Monitoring, Control, and Surveillance (MCS):** In order to ensure that conservation and management measures adopted by the Pacific HMS RFMOs are as effective as possible, the U.S. will, where appropriate, support the adoption of such MCS measures as regional observer programs, boarding and inspection regimes, nondiscriminatory trade measures, port state sampling and monitoring programs, trade documentation programs, and real-time vessel electronic reporting systems.

3. **Roles of the regional fishery management councils**

The WPFFMC and the PFMC are charged by the Magnuson-Stevens Act with developing management measures for the fisheries within their jurisdictions that will prevent overfishing while achieving the optimum yield from each fishery on a continuing basis (National Standard 1). They are thus important partners in developing recommendations and in implementing the domestic component of any comprehensive international program.

Although the specific management measures contained in the Councils’ FMPs are limited to application in the domestic fisheries under the authority of the respective Councils, the FMPs also can provide a foundation for the development of U.S. positions with respect to international management by the RFMOs. For example, the WPFFMC has recently recommended a non-regulatory amendment to the Pelagics FMP that sets forth a protocol describing the WPFFMC’s role in the international management of Pacific highly migratory fish stocks, including bigeye tuna. Pursuant to the protocol, the WPFFMC will directly participate in U.S. delegations to the RFMOs and will work cooperatively with NMFS and DOS to develop multi-lateral management measures consistent with international agreements and the Magnuson-Stevens Act. The protocol contains general principles, objectives, standards, and approaches for the international conservation and management of the HMS resources covered by the FMP. By continuing to work collaboratively with NMFS and DOS to develop such principles and recommendations, the Councils can help ensure that any U.S. proposals for ending overfishing of bigeye tuna in the Pacific in the context of the IATTC and the WCPFC are consistent with the Magnuson-Stevens Act’s objective of achieving the optimum yield from domestic fisheries. Council participation in the U.S. delegations to RFMO meetings and their membership in advisory bodies to the U.S. sections of the RFMOs will further ensure consistency with the goals and objectives of the Magnuson-Stevens Act and the relevant FMPs and facilitate domestic implementation of any necessary and appropriate management measures.

In addition to working cooperatively with NMFS and DOS in international frameworks, the PFMC and WPFFMC should continue to consider appropriate management responses for bigeye tuna, both domestically and for international application. On the domestic level, the Councils
should examine the various sources of bigeye fishing mortality, evaluate the relative effects of the domestic fisheries, and consider the likely remedial effects of potential management measures on a regional and local basis. Given the need for international action to end overfishing Pacific-wide, the Councils should also continue to evaluate potential multi-lateral actions for international application. All FMP amendments and protocols must be consistent with both the Magnuson-Stevens Act and the decisions and resolutions of the relevant RFMOs, to the extent practicable.

4. Appendices

A. Status of bigeye tuna in the Pacific Ocean

Under the Magnuson-Stevens Act, the status of a fish stock is determined using the criteria specified under a fishery management plan or international agreement. According to the guidelines for National Standard 1 of the Magnuson-Stevens Act (50 CFR 600.310), stock status is assessed with respect to two status determination criteria, or reference points, one of which is used to determine whether a stock is “overfished” and the second of which is used to determine whether the stock is subject to “overfishing.” A stock is considered to be overfished if its biomass falls below the minimum stock size threshold (MSST). A stock is subject to overfishing if the fishing mortality rate exceeds the maximum fishing mortality threshold (MFMT) for one year.

Neither the IATTC nor the WCPFC have adopted reference points for the purpose of stock status determinations (but both treaties contain the necessary authority for the parties to establish reference points and other specific management criteria as determined to be necessary). In the absence of internationally adopted reference points, the U.S. will rely on the relevant reference points for MSSTs and MFMTs established in the WC HMS FMP and the WP Pelagics FMP. The MSSTs and MFMTs are, for bigeye tuna, the same in the two FMPs (Table 1).

Table 1. Status determination criteria for bigeye tuna in the Pacific Ocean under the WC HMS FMP and WP Pelagics FMP

<table>
<thead>
<tr>
<th>MFMT</th>
<th>MSST</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B = c B_{MSY}$</td>
</tr>
</tbody>
</table>

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5 Both the IATTC and WCPFC refer to MSY in association with their principles and objectives. The WCPFC, for example, calls for conservation and management measures that are “designed to maintain or restore stocks at levels capable of producing maximum sustainable yield.” Neither convention, however, has operational reference points in the sense that breaching or approaching such points would trigger remedial management action. The IATTC has convened several meetings to consider the technical aspects of reference points for HMS.

6 In fact, the thresholds in the two FMPs are not exactly the same in the two FMPs because as indicated in the table, they are, in both cases, dependent on the estimated natural mortality rate (M) for a given stock, and it is possible that the estimate of M will be different under the two FMPs at any given time. Under the WP Pelagics FMP, for example, the latest estimate of M for each stock is, for the purpose of specifying the overfishing criteria, published annually in the SAFE report. It should also be noted that the two FMPs differ more substantially when it comes to other reference points, including target (i.e., optimum yield) reference points and a warning reference point for biomass (B).
\[
F(B) = \frac{F_{MSY} B}{c B_{MSY}} \text{ for } B \leq c B_{MSY}
\]
\[
F(B) = F_{MSY} \text{ for } B > c B_{MSY}
\]

where \( c = \text{max}(1-M, 0.5) \)

Bigeye tuna in the Pacific has been assessed using two approaches. The most common approach (the two-stock or two-region approach) has been to conduct as assessment for the WCPO, generally corresponding to the area of interest of the Secretariat of the Pacific Community (SPC), and now the WCPFC, and another assessment for the EPO, corresponding to the area of authority of the IATTC. The most recent stock assessments continued the two-region approach used by IATTC and the SPC: an assessment for the WCPO was completed in July 2004\(^8\) and an assessment for the EPO was completed in May 2004.\(^8\)

The second approach (the single-stock approach) treats bigeye tuna as a single Pacific-wide stock. A Pacific-wide stock assessment, including comparisons with results from separate-region assessments, was completed in July 2003.\(^9\) This assessment was initiated by the SPC in collaboration with the IATTC and other Pacific fishery science groups, including NMFS’s Pacific Islands Fisheries Science Center. The IATTC has initiated another Pacific-wide assessment in collaboration with the same groups, with results expected in the summer of 2005. Table 2 summarizes the status of bigeye tuna in the Pacific Ocean using both the 2003 single-stock and 2004 two-region assessment results.

**Table 2.** Pacific bigeye tuna stock status based on 2003 single-stock and 2004 two-region assessments

<table>
<thead>
<tr>
<th>M</th>
<th>MSST (B/B(_{MSY}))</th>
<th>MFMT (F/F(_{MSY}))</th>
<th>B/B(_{MSY})</th>
<th>F/F(_{MSY})</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.4</td>
<td>0.60</td>
<td>(~ 1.00)</td>
<td>1.057</td>
<td>1.75</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pacific (2001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.26</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.61</td>
<td>0.98</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pacific (2001)</td>
<td>1.72</td>
</tr>
</tbody>
</table>

- Value of M is from the WC HMS FMP and the WPFMC’s Pelagic Fisheries of the Western Pacific Region 2004 Annual Report.
- Note that the MFMT is dependent on F; the MFMT is at F/F\(_{MSY}\) – only as long as B is greater than or equal to the MSST (B/B\(_{MSY}\) \(\geq\) 0.60).

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• Estimates of $B/ B_{MSY}$ and $F/F_{MSY}$ for the EPO, WCPO, and Pacific are from Harley and Maunder (2004), Hampton et al. (2004), and Hampton et al. (2003), respectively.
• The 2003 assessment, being more dated than the 2004 assessments in terms of model development and available data, is weaker than the 2004 assessments.
• There is considerable uncertainty in these assessment results; the full assessment reports include the result of sensitivity analyses using alternative assumptions, as well as expressions of the uncertainty associated with the results; the results presented here are for the base case scenarios and do not indicate levels of uncertainty.
• The biomass-related results for the EPO are actually in terms of the biomass of fish 1+ years old.

Based on results from these three assessments, NMFS, relying on the expertise and advice of its regional fisheries science centers, determined that overfishing was occurring Pacific-wide on bigeye tuna. This determination relied on the assessment results from both the single-stock and two-region approaches but it did not rely on any assumptions or conclusions about stock structure. This determination was presented in NMFS’s 2003 Report to Congress: The Status of the U.S. Fisheries (transmitted to Congress on June 14, 2004), copies of which were transmitted to the regional fishery management councils. Subsequently, the PFMC and WPFMC were directly notified of the overfishing determination in a letter sent on December 15, 2004, by the regional administrators of NMFS’s Southwest Regional Office and Pacific Island Regional Office. The letter was published in the Federal Register on December 30, 2004 (69 FR 78397).

As shown in Table 2, the 2003 pan-Pacific assessment found that the ratio of the “current” (2001) fishing mortality rate to the fishing mortality rate associated with MSY ($F/F_{MSY}$) was 1.72. In order to reduce the fishing mortality to the MFMT (where $F/F_{MSY} = 1.00$) – that is, to end overfishing, fishing mortality in the Pacific Ocean as a whole would thus have to be reduced by 42 percent. The 2004 separate-region assessments (which are stronger than the 2003 assessments in terms of available data and model development) were somewhat more optimistic in terms of the extent of overfishing, with comparable figures of 38 percent for the EPO and 0 percent for the WCPO.

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10 It should be noted that neither of the two FMPs includes target reference points for fishing mortality; that is, the FMPs do not specify fishing mortality targets that are more conservative than the MFMT. The WC HMS FMP establishes an OY control rule (or “management control rule”) that is identical to the MSY-based limit control rule (i.e., the MFMT) (the FMP also notes that OY reference points are to be decided at international for a). The WP Pelagics FMP does not establish any OY or other target references points or control rules.
B. Sources of bigeye tuna fishing mortality in the Pacific Ocean

The total Pacific-wide fishing mortality of bigeye tuna is associated with recent reported annual landings of roughly 200,000 mt per year. U.S. fisheries in the Pacific land approximately 10,000 mt of bigeye tuna per year, or about five percent of total Pacific-wide landings. The U.S. fisheries that contribute to bigeye fishing mortality in the Pacific are summarized in Table 3.

Table 3. U.S. sources of bigeye tuna fishing mortality in the Pacific Ocean

<table>
<thead>
<tr>
<th>Fishery</th>
<th>Authorities</th>
<th>2003 Reported Landings (mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>California recreational fishery</td>
<td>Magnuson-Stevens Act (WC HMS FMP)</td>
<td>--</td>
</tr>
<tr>
<td>California longline fishery (high seas fishing only)</td>
<td>Magnuson-Stevens Act (WC HMS FMP) Tuna Convention Act (IATTC)</td>
<td>*30</td>
</tr>
<tr>
<td>Hawaii recreational pelagic fisheries</td>
<td>Magnuson-Stevens Act (WP Pelagics FMP) State of Hawaii</td>
<td>unknown</td>
</tr>
<tr>
<td>Hawaii longline fishery (including high seas fishing)</td>
<td>Magnuson-Stevens Act (WP Pelagics FMP) South Pacific Tuna Act (SPTT) Tuna Conventions Act (IATTC)</td>
<td>*3,620</td>
</tr>
<tr>
<td>Hawaii commercial handline fishery</td>
<td>Magnuson-Stevens Act (WP Pelagics FMP) State of Hawaii</td>
<td>180</td>
</tr>
<tr>
<td>Hawaii commercial troll fishery</td>
<td>Magnuson-Stevens Act (WP Pelagics FMP) State of Hawaii</td>
<td></td>
</tr>
<tr>
<td>American Samoa longline fishery (including high seas fishing)</td>
<td>Magnuson-Stevens Act (WP Pelagics FMP) South Pacific Tuna Act (SPTT) Territory of American Samoa</td>
<td>*240</td>
</tr>
<tr>
<td>U.S. Pacific purse seine fishery (EPO)</td>
<td>Tuna Conventions Act (IATTC)</td>
<td>2,600</td>
</tr>
<tr>
<td>U.S. Pacific purse seine fishery (WCPO)</td>
<td>South Pacific Tuna Act (SPTT)</td>
<td>3,580</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>10,250</strong></td>
</tr>
</tbody>
</table>

* indicates that the estimates is preliminary.
-- indicates that the date are not readily available but landings are believed to be less than 10 mt.
FMP = Fishery Management Plan
C. Management authorities and measures relevant to bigeye tuna in the Pacific Ocean

Management authorities that are relevant to bigeye tuna in the Pacific Ocean include:

- Magnuson-Stevens Act, which among things, provides for the conservation and management of marine fishery resources under U.S. jurisdiction, supports and encourages the implementation and enforcement of international fishery agreements for the conservation and management of HMS, establishes the regional fishery management councils, and provides for the preparation and implementation of fishery management plans, two of which are:
  o WC HMS FMP, developed by the PFMC
  o WP Pelagics FMP, developed by the WPFMC
- Inter-American Tropical Tuna Commission (IATTC), implemented via the Tuna Conventions Act and implementing regulations
- Western and Central Pacific Fishery Commission (WCPFC), to be implemented via the anticipated Western and Central Pacific Fishery Convention Act and implementing regulations\(^\text{11}\)
- Treaty on Fisheries between Certain Pacific Island States and the Government of the United States of America, or “South Pacific Tuna Treaty,” implemented via the South Pacific Tuna Act of 1988 and implementing regulations
- High Seas Fishing Compliance Act (HSFCA)
- Endangered Species Act (ESA)
- Marine Mammal Protection Act (MMPA)
- State and territorial governments

For the purpose of managing HMS stocks, the IATTC and WCPFC collectively cover the entire Pacific Ocean, and their respective areas of application or competence overlap in the central Pacific.\(^\text{12}\) The SPTT area covers a broad expanse of the 16 Pacific Islands Exclusive Economic Zones (EEZ) and high seas areas straddling the equator in the WCPO. Although most of the SPTT area is within the WCPFC area of competence, it does overlap the IATTC area of competence on the SPTT area’s eastern boundary.

Both the IATTC (actually the Antigua Convention, which has not yet entered into force) and WCPFC, as well as the SPTT, include language calling for cooperation with other regional bodies in order to establish compatible conservation and management measures.\(^\text{13}\)

\(^{11}\) Although the Convention went into effect in June 2004, the U.S. has not yet ratified the Convention. The DoS has sent the ratification package to the White House.

\(^{12}\) Essentially this overlap covers portions of the EEZs of Kiribati and French Polynesia, along with high seas areas also found to be included in the area of the IATTC’s revised convention. The eastern boundary of the WCPFC area in the North Pacific moves south along the 150° meridian of west longitude to the 4° parallel of south latitude where it jogs east to the 130° meridian of west longitude south to the 60° parallel of south latitude.

\(^{13}\) In the Antigua Convention, see Article XXIII relating to technical and other forms of assistance, and Article XXIV relating to cooperation with other organizations, including the need to consult with other organizations to harmonize management measures in areas of overlap. In the WCPFC, see Article 22-2 on cooperation, consultation and collaboration with other relevant RFMOs, including the IATTC, Article 22-3 on avoiding duplication of effort among RFMOs with respect to areas of overlap, and Article 22-4, which calls for consultations between the WCPFC and the IATTC. In the SPTT, see Article 7 on the need for consistency with measures adopted under the WCPFC and cooperation on matters of common concern.
Under the authority of the legal mandates listed above, a variety of conservation and management measures that are relevant to the bigeye tuna in the Pacific Ocean have been established. They include the following:

**West Coast Highly Migratory Species FMP**

Existing:
- No longline fishing within the EEZ
- No swordfish-directed longline fishing on the high seas west of 150° W longitude and north of the equator, unless operating under a western Pacific longline permit (complemented by an ESA-promulgated prohibited east of 150° W)
- Port sampling and catch reporting, vessel observer and vessel monitoring systems (VMS) requirements
- Vessel permits required for vessels that engage in commercial fishing or recreational charter fishing for HMS: (1) inside the EEZ off the U.S. west coast; or (2) if HMS are landed in Washington, Oregon or California regardless of where the harvest occurred
- Time/area closures for longline and drift gillnet
- Sea turtle and seabird bycatch measures

Under consideration by the PFMC:
- Limited entry permit program for the California longline fishery

**Western Pacific Pelagics FMP**

Existing:
- Limited access permit program for the Hawaii longline fishery
  - 164 permits available
  - vessel length limit of 101 feet
- Non-competitive limit on Hawaii shallow-set (swordfish) longline effort of 2,120 sets per year
- Competitive annual limits on leatherback (16) and loggerhead (17) turtle interactions with Hawaii-based shallow-setting longline vessels
- Longline closed areas around Hawaiian Islands, Guam, and American Samoa
- Catch reporting, gear marking and vessel identification, vessel observer, and VMS requirements for longline vessels
- Permit and catch reporting requirements for longline vessels in areas other than Hawaii (American Samoa, Guam, and Northern Mariana Islands)
- Permit and catch reporting requirements for pelagic troll and handline fisheries in the Pacific Remote Island Areas
- Permit and reporting requirements for vessel transshipping/receiving pelagic species

In progress:
- Limited access permit program for the American Samoa longline fishery (pending)
  - approximately 138 permits available, divided among four vessel size classes
vessel observer requirement for vessels longer than 50 feet, VMS requirement for vessel longer than 40 feet

**South Pacific Tuna Treaty (via the South Pacific Tuna Act)**

Existing:
- Limited access by U.S. purse seine vessels in Treaty area (40, plus 5 joint venture)
- Catch reporting, vessel observer, and VMS requirements

**IATTC (via the Tuna Conventions Act)**

Existing:
  - Closure of the tuna purse seine fishery for a six week period (20 November - 31 December 2004)
  - Closure of the bigeye tuna longline fishery when the annual bigeye catch reaches the catch level in 2001 (150 mt) (December 2004)
- Bigeye tuna statistical document program (final rule published in concert with the ICCAT requirement for reporting and permitting)
- At-sea reporting
- Provision of data
- Positive list of longline vessels
- Fleet capacity limits
- Bycatch
  - Conservation of non-target species, including juvenile tunas (e.g., minimum size limits and full retention requirements). Bycatch includes, but is not limited to, sea turtles and sharks.

In progress:
- Monthly catch report of bigeye tuna to the IATTC
- VMS on all vessels fishing for tuna 24 meters in length or greater, all gear types

**WCPFC (via the anticipated Western and Central Pacific Fishery Convention Act)**

- Potential measures area to be considered at the 2005 annual meeting

**High Seas Fishing Compliance Act**

The High Seas Fishing Compliance Act (HSFCA) and its implementing regulations require, among other things, that any U.S. vessel operating on the high seas be authorized via a permit. Recently NMFS has required, as agency policy, that all fisheries operating on the high seas be in compliance with the National Environmental Policy Act, the Endangered Species Act, and the Marine Mammal Protection Act prior to providing new (or renewed) HSFCA permits. Most U.S. fisheries operating on the high seas area of the Pacific Ocean have the required analysis and
documentation because they are managed under the Magnuson-Stevens Act. For those few that are currently outstanding it is expected that these will be completed by the end of 2005.

Existing:

- Permits, vessel marking, and catch reporting for all U.S. vessels fishing on the high seas

*Endangered Species Act*

Existing:

- No swordfish-directed longline fishing on the high seas east of 150° W and north of the equator, unless operating under a western Pacific longline permit (complemented by a Magnuson-Stevens Act-promulgated prohibition west of 150° W)

*Marine Mammal Protection Act*

- Marine Mammal Protection Act Certificate required for vessels in Category I fisheries (Hawaii longline fishery) and Category II fisheries (west coast longline fishery)

*State and territorial authorities*

- Catch reporting requirements for commercial pelagic fishermen in Hawaii
- Creel surveys in American Samoa, CNMI, Guam, and Hawaii
D. Action items from HMS Summit

Coordination between the Southwest Region, the Pacific Islands Region, and Headquarters will be improved through implementation of the action items identified during the HMS Summit in Long Beach in August 2004:

Capacity:

- Form a subgroup task force for capacity control issues – Southwest Region, Pacific Island Region, Headquarters

Illegal unregulated and unreported fishing and monitoring, control and surveillance:

- Employ/task a contractor to compile the RFMO vessel lists to facilitate global assessment and comparison of regional fishing fleets (potential follow-up is discussion of this at the UN Food and Agriculture Organization Committee on Fisheries meeting – if our internal analysis indicates necessity); this is currently in process
- Trade measures task force to discuss status and development of tuna trade measures – including tracking and remedial actions (e.g., trade sanctions)
- Status of the national policy of the use of international VMS data – NOAA Office of Law Enforcement

Inter- and intra-agency effectiveness and efficiency:

- Provide all Summit participants with access to the International Intranet website (https://ia.nmfs.intranets.com/login.asp?link=) to enhance internal communication and efficacy of finding information on each of the tuna RFMOs
- Improve intelligence gathering function – enhances preparedness at RFMO meetings and limits incidence of blind-siding
- Free trade acts – involvement of NMFS in the development of these to ensure proper attention to and inclusion of fisheries trade issues (also topic for discussion with DOS)
- Region-wide internal meetings prior to various RFMO meetings to discuss policy development – NMFS coordination on issues and protocols
- Compare rulemaking processes at both the international and national RFMO level and seek simplicity
- Identify ways to address non-governmental organization influence on functioning of fisheries (e.g., Earth Island Institute driven consumer boycotts of tuna – per the tuna-dolphin issue)
- Have “cross-cutting RFMO tuna issues” summit with DOS to discuss emerging issues, process issues (to be dealt with by each of the RFMO leads), and exchange views and assess where both NMFS and DOS stand on those issues