

HIGHLY MIGRATORY SPECIES MANAGEMENT TEAM (HMSMT) REPORT ON
AMENDMENT 4 TO THE FISHERY MANAGEMENT PLAN (FMP) FOR WEST COAST
FISHERIES FOR HIGHLY MIGRATORY SPECIES

Additional Proposed HMS FMP Revisions for Amendment 4

NMFS WCR Long Beach staff provided a briefing to a joint session of the HMSMT and Highly Migratory Species Advisory Subpanel (HMSAS) on June 10, 2017 regarding additional proposed HMS FMP revisions for Amendment 4 to those in the June 2017 advanced briefing book. The newly proposed revisions only concern sections 4.1.1, 4.1.1.1, 4.1.1.2 and 4.2 of the briefing book version of the HMS FMP, and are provided in Appendix 1 of this report with newly-proposed language highlighted in gray. The crossed out parts are the changes previously proposed. The HMSMT notes that sections 4.1.1.1 and 4.1.1.2 in the advanced briefing book would be replaced by new section 4.2, and advanced briefing book section 4.2 would be replaced by new section 4.4.

The newly-proposed revisions are intended to clarify the process by which NMFS utilizes the outputs of international assessments in its status determinations and to provide NMFS the flexibility to use the stock assessment results that the relevant international science providers deem appropriate. They include no changes to the existing status determination criteria in the HMS FMP. For example, current language in the HMS FMP does not clarify that the HMS MUS stocks are internationally assessed and hence the assessments are not subject to SSC review as are domestically-managed stocks.

HMS FMP Housekeeping Related to the HMS SAFE Report

The HMSMT has summarized the results of its work to address the Council's assignment to identify HMS FMP items which are subject to frequent revision for potential movement from the HMS FMP to the HMS SAFE Report. The results of this exercise are provided in Appendix 2 to this report.

Joint HMSAS-HMSMT Discussion of Amendment 4

At their June 10, 2017 joint meeting, the HMSMT and HMSAS discussed proposed HMS FMP changes under Amendment 4. Key concerns raised by the HMSAS include (1) discussion of MSA requirements in the current HMS FMP amendment which are applicable to managing domestic stocks, such as ABC, ACLs, ACTs, and Accountability Measures, seems confusing given that all HMS MUS are currently subject to the international exception; (2) the potential for domestic management measures for HMS MUS to differ from those formally agreed upon by the RFMOs, disadvantaging U.S. participation in international fisheries; (3) the proposal to move descriptions of HMS fisheries from the HMS FMP to the HMS SAFE Report.

The HMSMT reviewed the additional proposed revisions to HMS FMP described in the HMSAS report on this agenda item. The HMSMT believes the proposed revisions clarify HMS FMP provisions without making any substantive changes. They further serve to align the language in the HMS FMP with actual practice, similar to the proposed revisions in the supplemental HMSMT report under this agenda item. The HMSMT recommends the Council adopt the proposed additions in the HMSAS report.

Appendix 1. HMS FMP Sections with Additional Proposed HMS FMP Revisions for Amendment 4

4.0 Preventing Overfishing and Achieving Optimum Yield

4.1.1 Reference Points Required for All Stocks

MSY stock size (B_{MSY}): The long-term average size of the stock or stock complex, measured in terms of spawning biomass or other appropriate measure of the stock's reproductive potential that would be achieved by fishing at F_{MSY} . **MSY**

4.2 Maximum Sustainable Yield

MSY is estimated based on the amount of information available about the stock. MSY is specified as an absolute quantity, either in weight or number of fish. For management purposes the estimate of MSY by itself is less relevant than the reference points, F_{MSY} and B_{MSY} , that may be derived from it. For regularly assessed stocks, a reliable estimate of MSY (and other MSY-based reference points) may be determined from the assessment. However, for many HMS, a reliable estimate of MSY may not be determinable. In these cases proxy values for MSY-based reference points may be used. These MSY related reference points may be specified in various ways, for example relative to a stock depletion level (biomass relative to unfished biomass) or spawning potential ratio (the spawning potential per recruit referenced to the unfished level).

The following describes the relationships between available information and estimation of MSY. In the event that MSY estimates in an assessment are not reliable, a proxy may be selected from the suite of biological reference points calculated in the assessment for determining a status that is based on the best scientific information available (BSIA). Because HMS assessments are generally conducted by scientists and working groups outside the Council process, such selections may be based on what the science providers (e.g. ISC working groups, IATTC staff, SPC staff) determine to be best scientific information and what they provide in their reports.

In the event that the Council (or SSC) determines that the values for SDCs or their proxies or both are not suitable for management purposes, the Council may recommend changes in the way that MSY is estimated in the assessment. These recommendations would be forwarded to the RFMO or science providers conducting or sponsoring the stock assessment through the U.S. delegation, for consideration when conducting future assessments. In such instances, the Council could recommend that NMFS use any current MSY estimate in the FMP or regulations for determining status, or propose an alternate estimate.

For unassessed stocks with catch history and additional information on relative abundance or stock productivity: Stockwide catch data could be compiled, or if not available, regional catch data and all additional information on a stock's productivity including relative abundance or catch and effort data if available. NMFS may develop MSY or proxy estimates based on the catch time series and additional information. The relative impact of U.S. west coast fisheries may help to inform decisions on selecting appropriate reference points.

For unassessed stocks with catch history but lacking further information on relative stock abundance or productivity: Stockwide catch data could be compiled, or if not available, regional catch data. NMFS may choose a catch-based method such as the Depletion Corrected Average Catch (DCAC), Depletion Based Stock Reduction Analysis (DB-SRA), or in the case of a relatively stable catch history without indications of stock depletion, an average of selected catch levels to represent a proxy MSY.

4.4 Assessment of Stock Status

The methods for determining SDCs (described below) imply an ability to determine the level of biomass relative to its unfished level (B_0) and (at least conceptually) relative to B_{MSY} , and to determine the level of mortality (F) relative to some target level like F_{MSY} . This may be possible only for certain assessed HMS stocks, depending on the amount of information those conducting stock assessments have available to them (see section 4.2 regarding information available for stocks). In instances when there is not a stock assessment, the relative biomass level could be estimated by the decline in catch rate (CPUE) or by percent spawning potential ratio (SPR), or proxies based on SPR, e.g., $B_{50\%}$ or $F_{50\%}$. In these cases, it may be necessary to use the proxy values in order to compute SDCs. For data-poor stocks, MSY or OY estimates based on catch history alone may be the only information available for management, and the F/F_{MSY} and B/B_{MSY} ratios must be derived from those estimates. In these cases proxy values could be based on average stock-wide catch over an appropriate time period. B_{MSY} and F_{MSY} proxies can be scaled as fractions of B_0 or multiples of natural mortality (M), respectively, e.g., $B_{MSY}=0.5B_0$ or $F_{MSY}=1.0M$.

Appendix 2. Information proposed to be transferred from the HMS FMP to the HMS SAFE Report

The proposed HMS FMP Section 4.6 outlines the information that will be contained in the SAFE Report. Numerical estimates for status determination criteria and harvest specifications are proposed to be transferred from the FMP to the SAFE so that they may be updated more quickly and easily than if they remained in the FMP. Accordingly, Tables 4.1, 4.2, and 4.3 on pages 42-44 in the current FMP would be transferred and updated in the HMS SAFE. In addition, the FMP description of research and data needs, which also changes periodically, is proposed to be transferred from the FMP to the SAFE. New proposed HMS FMP Section 4.6 is copied here and specific references to the SAFE excerpted from the track changes version of the FMP are listed below.

4.6 Stock Assessment and Fishery Evaluation Report (page 96 in Agenda Item H.1, Attachment 2, June, 2017)

Each SAFE report

- Must be scientifically based, and cite data sources and interpretations.
- Report any changes to numerical estimates of MSY and OY adopted by the Council as a recommendation to NMFS as part of the biennial process described in Chapter 5.
- Report estimates of the MFMT, OFL, and MSST for each stock or stock complex, along with information by which the Secretary may determine: Whether overfishing is occurring with respect to any stock or stock complex; if any stock or stock complex is overfished; if the rate or level of fishing mortality applied to any stock or stock complex is approaching the maximum fishing mortality threshold; and if the size of any stock or stock complex is approaching the minimum stock size threshold.
- Should contain information on which to base harvest specifications, including ABCs, ACLs, and ACTs, if appropriate.
- May contain recommendations to the Council on matters concerning bycatch and incidental catch.

- May describe those management measures necessary to rebuild an overfished stock or stock complex to a level consistent with producing the MSY in such fishery.
 - May contain additional economic, social, community, essential fish habitat, and ecological information pertinent to the success of management or the achievement of objectives of each FMP. Periodically, to align with the preparation of the Council’s inventory of research and data needs prepared by the Scientific and Statistical Committee, the SAFE will contain research and data need recommendations.
- Periodically, to align with the preparation of the Council’s inventory of research and data needs prepared by the Scientific and Statistical Committee, the SAFE will contain research and data need recommendations.

Each year, in June and September, the HMS Management Team will deliver one combined SAFE report for all species in this FMP to the Council. The SAFE report will follow the guidelines specified in National Standard 2 and will be used by the Council and NMFS to develop and evaluate regulatory adjustments under the framework procedure or the FMP amendment process. This information will provide the basis for determining annual harvest levels from each stock, documenting significant trends or changes in the resource, the bycatch, and the fishery over time, and assessing the relative success of existing state and federal fishery management programs. In addition, the SAFE report can be used to update or expand previous environmental and regulatory impact documents, and ecosystem and habitat descriptions, including EFH.

Excerpts related to the HMS SAFE report from Agenda Item H.2, Attachment 1, June 2017:

(page 1)

In addition, Chapter 8, Research and Data Needs for Management, would be deleted from the FMP with current research and data need assessments included periodically in the Stock Assessment and Fishery Evaluation (SAFE) document produced annually.

(page 2):

Renumbered Section 4.6, Stock Assessment and Fishery Evaluation Report (SAFE), has been revised to more clearly enumerate contents of the SAFE with respect to harvest specifications (MSY, OY, SDC, etc.). This section also notes that the SAFE will periodically include research and data needs recommendations, which is an alternative to the out of date.

(pages 2-3)

Table 4-1, Demographic and productivity comparison of highly migratory MUS and selected prohibited species, Table 4-2, Summary of population status of management unit species at the time of FMP adoption, and Table 4-3, Stockwide and regional catches with respect to MSY, sustainability, and regional harvest guidelines, are deleted. The information in these tables will be periodically updated in the SAFE document.

(page 4)

Chapter 4 describes the framework for determining management thresholds, control rules for management, and measures to prevent overfishing and rebuild overfished stocks, and the contents of the SAFE document.

(page 27)

4.0 Preventing Overfishing and Achieving Optimum Yield

This chapter describes the framework for controlling catch from HMS fisheries to achieve the overall objective of optimum yield. As discussed throughout, domestic catches are often only a small fraction of the stock-wide harvest. (The HMS SAFE document periodically reports the fraction of stock-wide catch represented by West Coast fisheries).

(page 29)

MSY Maximum Sustainable Yield

Because MSY is a long-term average, it need not be estimated annually, but it must be based on the best scientific information available, and should be re-estimated as required by changes in long-term environmental or ecological conditions, fishery technological characteristics, or new scientific information.

As part of the biennial process (see Chapter 5) the HMSMT will review recent stock assessments or other information as described below and submit a draft SAFE document for review at the June Council meeting containing MSY estimates, noting if they are a change from the current value.

(page 32)

OY specifications will be reported in the HMS SAFE.

(page 33)

4.4 Assessment of Stock Status

National Standard 2 requires using the best scientific information in managing management unit species. This requires periodic updating of stock status for comparing against status determination criteria. Stock status will be reported in Stock Assessment and Fishery Evaluation (SAFE) reports (Section 4.6).

(pages 38-41)—Section describes SAFE contents, only introductory paragraph copied here:

4.6 Stock Assessment and Fishery Evaluation Report

The SAFE report is a document or set of documents that provides the Council with a summary of information concerning the most recent biological condition of stocks and the marine ecosystems in the management unit and the social and economic condition of the recreational and commercial fishing interests, fishing communities, and the fish processing industries. It summarizes, on a periodic basis, the best available scientific information concerning the past, present, and possible future condition of the stocks, marine ecosystems, and fisheries being managed under federal regulation.

PFMC

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