



WESTERN PACIFIC STOCK ASSESSMENT REVIEW FRAMEWORK

National Marine Fisheries Service Pacific Islands Fisheries Science Center
National Marine Fisheries Service Pacific Islands Regional Office
Western Pacific Fishery Management Council

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1. Introduction

Section 301(a)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires that fishery conservation and management measures shall be based upon the best scientific information available. MSA § 302(g)(1)(E) provides that the Secretary of Commerce (Secretary) and each regional fishery management council “may establish a peer review process for that Council for scientific information used to advise the Council about the conservation and management of a fishery.” Consistent with this provision, the **Western Pacific Fishery Management Council** (Council), NOAA’s National Marine Fisheries Service (NMFS) **Pacific Islands Fisheries Science Center** (PIFSC) and the **Pacific Islands Regional Office** (PIRO) have established the Western Pacific Stock Assessment Review (WPSAR) process. WPSAR is a cooperative effort to improve the quality, timeliness, objectivity, and integrity of stock assessments and other scientific information used in managing fishery resources in the Pacific Islands Region. The WPSAR process may be applied to scientific information used by the Council directly to fulfill its management mandate in the execution of the MSA.

This framework outlines the scope of WPSAR, defines roles and responsibilities, summarizes the review tiers, describes the sequencing and timing of the WPSAR process in coordination with the larger Council process, and provides mechanisms for resolving disputes.

2. Scope

The Council, PIFSC and PIRO established the WPSAR process to ensure rigorous and independent scientific review of stock assessments and other scientific studies that have not been previously peer reviewed. This process adopts a three-tiered approach for the review of stock assessment and research products for use in managing fishery resources in the Pacific Islands Region. However, stock assessments and products produced in cooperation with RMFOs to which the US is a signatory are exempt from WPSAR review.

In accordance with National Standard 2 (NS2) guidelines, the WPSAR process is not intended as a substitution for the Council’s Scientific and Statistical Committee (SSC) and nothing in this policy shall impede the Council, NMFS or the Secretary from exercising appropriate authority to fulfill their responsibilities under all applicable laws when necessary. Consistent with MSA § 302(i)(2)(C), all meetings convened as part of the WPSAR process will be noticed in the Federal Register and held in public places. Names and organizational affiliations of reviewers will be made publicly available during the review process.

3. Roles and Responsibilities

PIFSC, PIRO and the Council are the primary organizations cooperating under this framework. They will form two committees, a Steering Committee to oversee the WPSAR process and a Coordinating Committee to manage the details of the reviews.

The Council, PIFSC and PIRO will share fiscal and logistical responsibilities to support the WPSAR process. As a Council process established under MSA § 302(g), the MSA § 303(i)(1) Federal Advisory Committee Act exemption applies.

a. Steering Committee

The Steering Committee membership includes the PIFSC Science Director, the PIRO Regional Administrator, and the Council’s Executive Director. The WPSAR Steering Committee provides guidance and oversight on the overall coordination of the WPSAR process and activities. The Steering Committee meets as needed, but at least annually. Responsibilities of the Steering Committee shall be to:

- Approve or update the five year stock assessment plan;
- Assign review tiers for stock assessments for the upcoming year;
- Assign review tiers for additional products for review, such as fishery studies, habitat assessments, reports, or technical information;
- Approve Terms of Reference (TOR) and panel membership which are unique to each review;
- Resolve all circumstances by which products may come under the purview of WPSAR not specifically addressed herein; and
- Review and resolve all disputes, by consensus where possible.

b. Coordinating Committee

The Coordinating Committee is drawn from support staff of each organization and its members are identified by the representative Steering Committee member. Chairmanship of the Coordinating Committee will be shared among the committee representatives and shall rotate with each review undertaken. Responsibilities of the Coordinating Committee shall be to:

- Draft and submit the TOR for review by the Steering Committee six months prior to the scheduled WPSAR review date to meet constraints outlined in 50 CFR §600.315(b)(1)(iii);
- Provide advice to the Steering Committee on the appropriate review tier;
- Identify expert panel members, including a panel chair, following criteria for reviewer qualifications in 50 CFR § 600.315(b)(2) and (c)(3), and present those suggestions to the Steering Committee;
- Schedule the Steering Committee meetings at least annually;
- Draft the Steering Committee agenda;
- Draft all necessary documents, e.g., meeting notices for publication;
- Work with selected panelists to coordinate their participation;
- Provide all documents, including the TOR, to each reviewer empanelled on a Tier 1, 2 or 3 review.
- Resolve any additional business as directed by the Steering Committee.

(i) Pacific Islands Fisheries Science Center

PIFSC will contribute one staff member to the Coordinating Committee. The primary functions of the PIFSC staff member are:

- Draft the assigned TOR and ensure that each review meets scientific needs and any established national guidelines;

- Ensure, in cooperation with the panel chair, that the established TOR have been addressed at the close of the review;
- Work with CIE representatives to coordinate necessary CIE reviews; and
- Provide all CIE related documents for electronic publication and provide maintenance of file copies.

(ii) Pacific Islands Regional Office

PIRO will contribute one staff member to the Coordinating Committee. The primary functions performed by the PIRO staff member include:

- Draft the assigned TOR and ensure that each review meets NMFS management needs and any established national guidelines; and
- Assist PIFSC and Council staff in fulfilling their primary functions.

(iii) Western Pacific Fishery Management Council

The Council will contribute one staff member to the Coordinating Committee. The primary functions performed by the Council staff member include:

- Draft the assigned TOR and ensure that each review meets Council management needs and any established national guidelines;
- Coordinate logistics of WPSAR reviews;
- Prepare WPSAR meeting notices and mailings of documents as needed;
- Provide electronic publication and maintenance of file copies of all documents; and
- Share all appropriate documentation with the Council's SSC in appropriate advance of their meeting.

c. Panel Members

All panelists are expected to review all contributed documents in advance of the meeting, actively contribute during the meeting, offer solutions with constructive criticism, and work toward consensus while conducting themselves respectfully and professionally.

Panel Chair: The Panel Chair shall be determined by consensus of the Steering Committee. The Chair shall facilitate the review to accomplish the stated goals and objectives articulated within the terms of reference. The Chair will produce a summary report of the review which will be posted on the WPSAR website (http://www.pifsc.noaa.gov/peer_reviews/wpsar/index.php).

Panel Participants: Panel participants shall be approved by the Steering Committee. Each panelist will develop an independent review report which will also be posted on the WPSAR website. Each panelist is expected to fulfill all elements specified in the TOR for the review to which he/she is empanelled.

4. Terms

Stock assessments examine the effects of fishing and other factors to describe the past and current status of a fish stock, answer questions about the size or abundance of a fish stock, and make predictions about how a fish stock will respond to current and future management measures. To meet these management needs, there are two broad categories of assessment: benchmark and update. A ***benchmark assessment*** is usually characterized

as a new assessment for management application. It may apply a model for the first time that has been previously peer reviewed; use new or additional data sources or parameters in the determination of CPUE or incorporation in the model; use new methodologies within the analysis of CPUE; or be the first assessment of a stock for management. In short, a benchmark is either a completely new application of a model to management, or encompasses any major changes in an assessment beyond simply the addition of additional years of data. **Assessment updates** are restricted to the incorporation of additional years of source data only (such as CPUE or other data from fishery-dependent or independent surveys) into the time series from a previously reviewed assessment. No additional changes to the model will be applied nor any changes in the treatment of the survey (CPUE or other) time series.

Peer review provides an independent evaluation of stock assessments, and other scientific products, by experts in the field. This ensures the assessment is scientifically robust and credible. The level of review provided by the WPSAR process falls into one of three tiers. The tiers differ in form, timing, scope, and panel membership, commensurate with the novelty and complexity of the information under review. Reviewers will be selected in accordance with NS2 peer reviewer selection guidelines (50 CFR § 600.315(b)(2) and (c)(2)), and in accordance NOAA's Conflict of Interest Policy (http://www.cio.noaa.gov/services_programs/NOAA_PRB_COI_Policy_110606.html#Text).

The WPSAR Steering Committee determines the appropriate Tier: **Tier 1** (new assessment methods and specific instances outlined below), **Tier 2** (benchmark assessments), or **Tier 3** (assessment updates) and follows the outlined review process. Due to limited personnel and fiscal resources, the Steering Committee must prioritize scientific products on the WPSAR schedule and may agree to alternative procedures as necessary.

a. Tier 1

A Tier 1 review will cover new stock assessment models and methods that have not previously been reviewed and are not yet being applied for management purposes (e.g., simulation or comparative studies providing no applicable management alternatives). Tier 1 reviews will be conducted by the Center for Independent Experts (CIE, <http://ciereviews.org/>), will use CIE selection criteria, CIE infrastructure, follow established CIE review protocols and be subject to the CIE scheduling requirements. In accordance with those protocols, reviews may be conducted on-site (i.e. in Honolulu) or by desktop review. Desktop reviews are not meetings, and as such are not required to be noticed in the Federal Register and are not required to be public.

Special Circumstances

Stock assessments and products produced in cooperation with RMFOs to which the US is a signatory are exempt from WPSAR review. External reviews of RFMO assessments and scientific information may result in near-term management advice. In special instances, assessments of internationally managed species may fall under the Tier 1 WPSAR process. Species that fall under an RFMO's authority but are not assessed by science providers to RMFOs may be reviewed

under the Tier 1 level. This special circumstance is at the discretion of the Steering Committee.

b. Tier 2

Reviews at the Tier 2 level encompass the application of a reviewed method or model to a benchmark assessment. As defined above, a benchmark may apply to broad range of products, a completely new assessment or any major changes in an assessment beyond the inclusion of additional years of data. Tier 2 assessments will result in near term management advice.

c. Tier 3

Reviews at the Tier 3 level encompass assessment updates and are the least rigorous in scope. As defined above, an assessment update is only the addition of new data to an existing model that has been previously comprehensively reviewed. Tier 3 assessments will result in near term management advice.

5. Terms of Reference

As stock assessments are demographic analyses designed to provide particular scientific advice to managers, and the WPSAR process may be used in review of other scientific information, each review will have a unique TOR to guide the review process. The TOR will identify the purpose and scope of the review. It will be drafted by the WPSAR Coordinating Committee, be concise, and in accordance with national guidance. Each TOR will be approved by the Steering Committee and made publicly available before the review.

6. Planning

The WPSAR process will utilize a five year planning horizon to enable appropriate planning and allocation of staff time to complete the necessary assessments and associated reviews as they are required for management. The schedule, selected panelists, the review terms of reference and supporting documents, and review reports will all be made available on the WPSAR website.

7. Panel Membership

All members of a WPSAR panel must be approved by the Steering Committee. If a Steering Committee member does not respond to electronic queries from the Coordinating Committee regarding panel membership, the assumption will be assent.

a. Tier 1: Tier 1 reviews are conducted by the CIE. SSC members will not be part of the CIE review panel, but the SSC may request a briefing on the review and the final CIE product. Any SSC comments on the potential application of the new model or method to PIR fisheries may be used in the development of TOR for the Tier 2 review when the model or method is to be applied for management purposes.

b. Tier 2: The Tier 2 panel shall be composed of three to five experts, the exact size determined by the WPSAR Coordinators and approved by the Steering Committee. On a Tier 2 panel a minimum of 2 to 4 panelists, depending on panel size, must be

external to PIFSC, PIRO and the Council. Panel membership will depend on the product to be reviewed and expertise of potential panelists in the subject matter. The chair of the Tier 2 panel will be an SSC member appointed by the Steering Committee.

- c. **Tier 3:** Like a Tier 2 panel, Tier 3 panels will consist of three to five individuals, the exact size determined by the WPSAR Coordinators and approved by the Steering Committee. Under Tier 3 only, the Steering Committee may unanimously agree to a WPRFMC SSC/PIFSC-only review. If the Steering Committee does not agree then panel membership constraints apply as outlined under Tier 2.

8. Timeline

The WPSAR process will follow the generalized timeline (Table 1) and be scheduled to accommodate the suite of activities between the preparations for completed draft stock assessments to the production of final assessment that may be utilized in specifying annual catch limits. As an example, any assessment agreed to by the Steering Committee in April/May (calendar year 1) would be conducted during the following year and reviewed that September/October/November (calendar year 2), corrections and recommendations from the review would be incorporated in the November to January timeframe, and presented to the SSC at their first meeting (Feb/March) in the subsequent year (calendar year 3). The results would, in turn, be presented to the Council at their first meeting of the year (March/April) making it available in the SAFE/annual report for management advice in summer. This streamlined approach creates a system where the entire process from when an assessment begins to management advice delivered takes approximately two years.

Scheduling of Tier 1 reviews will follow CIE protocols. Reviews of non-stock assessment related products, ideally, will be reviewed mid-year so as to not conflict with the potentially heavy schedule of reviewing assessments. When accommodating the additional review needs, impacts to resources (personnel and fiscal) shall be considered by the Steering Committee.

Table 1: Generalized timeline

Month	Activity
Apr – May	WPSAR Steering Committee meets to discuss and establish/update a 5-year planning schedule and for the production, prioritization and delivery of draft and final assessments for following year. At this time requests for review of non-stock assessment products may be submitted for review.
May – July	TORs for the upcoming (fall) reviews reviewed and approved by the Steering Committee. Panel membership determined.
Sept – Oct	Draft stock assessment reports (and supporting documentation) or studies approved the previous year will be targeted for completion and made available for review.
Oct – Nov	Reviews of Tier 2 or 3 level assessments will take place locally as reviewers schedules allow. The dates of Tier 1 reviews are subject to

	CIE scheduling protocols.
Nov – Jan	When possible, reviewer comments should be addressed by the authors of the assessment or study.
Feb	When possible, the final stock assessment report should be shared with the SSC. WPSAR panelist reports and the final assessment report will be posted on the WPSAR website.
Mar	The SSC will hear a presentation from the WPSAR Panel Chair on the stock assessment review and final report. Any comments or recommendations made by the SSC will be considered in the drafting of the TOR for the next version of the stock assessment. Planning begins for next Steering Committee meeting.
April – May	Stock assessment documents and associated peer review reports, and recommendations and reports from the SSC are incorporated into the SAFE/annual report. WPSAR review period for non-stock assessment products. WPSAR Steering Committee meets for following year.
June	SAFE/annual report presented to SSC and Council.

9. Reports

Reports produced under a Tier 1 review will follow the established CIE review protocols. See <http://ciereviews.org/> for more information.

For Tier 2 and 3 reviews, the Panel Chair will provide a consensus report to the Coordinating Committee at the close of the review that addresses the established TOR for the review. The consensus Panel report, individual reviewer reports, as well as the final reviewed product, will be made available to the public on the WPSAR website shortly after the review is closed. Any minority opinions will be recorded in the reports.

Pursuant to NS2 guidelines, if the SSC “disagrees with the findings or conclusions of a peer review, in whole or in part, the SSC must prepare a report outlining the areas of disagreement, and the rationale and information used by the SSC for making its determination. This report must be made publicly available” (50 CFR § 600.315(c)(5)). SSC comments or concerns, not falling under the above guidance and resulting in a report, will be incorporated into the TOR for the next assessment and addressed at that time.

The assessment authors will use the panel’s reports to incorporate recommended changes into the assessment. When possible, the final stock assessment, with the comments of the reviewers addressed and incorporated, should be presented to the SSC by the assessment report authors in conjunction with the WPSAR Panel Chair.

10. Disputes

The decisions made by the Steering Committee will be by unanimous agreement whenever possible and shall be by majority if consensus cannot be reached. If the Committee cannot come to unanimous agreement on peer review tier level the review will be conducted at the higher level of review to increase objectivity and independence. If the results of a review are ambiguous as to the scientific merit (e.g., one reviewer says “yes, may be applied for management purposes”, a second says “maybe apply with changes” while the third says “no, do not apply”) then the Steering Committee will seek to reach consensus on another

way forward, including but not limited to, undergoing a second review at the next highest Tier. Generally management advice will not result from a Tier 1 review, however should consensus not be reached by the Tier 2 reviewers and a Tier 1 (higher level) review be deemed necessary, then management advice will follow from that subsequent Tier 1 review. However, nothing in this policy shall impede the Council, NMFS or the Secretary from exercising appropriate authority to fulfill their responsibilities under all applicable laws when necessary.

Agreement

This Agreement will remain in effect unless and until it is terminated or revised by mutual agreement. By signature below, and on behalf of the organization I represent, I support the tenets of this framework, and agree to fulfill the roles and responsibilities outlined herein, and to support the efforts of the other parties in doing likewise.

Kitty M. Simonds
Executive Director,
Western Pacific Regional Fishery Management Council

Michael Seki
Director,
NMFS-Pacific Island Fisheries Science Center

Michael Tosatto
Regional Administrator,
NMFS-Pacific Island Regional Office