



# 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 Regional Fishery Management Council

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## Contents

1. Acronyms and Abbreviations.....	3
2. Introduction.....	3
3. Scope.....	3
4. Roles and Responsibilities .....	4
a. Steering Committee.....	4
b. Coordinating Committee.....	4
(i) Pacific Islands Fisheries Science Center.....	5
(ii) Pacific Islands Regional Office.....	5
(iii) Western Pacific Fishery Management Council.....	5
5. Terms .....	6
a. Benchmark Review .....	7
b. Update Review .....	7
6. Terms of Reference (TOR).....	7
7. Planning .....	7
8. Reviewers.....	7
Benchmark Reviews: .....	7
Update Reviews .....	8
Review Chair: .....	8
Review Members .....	8
9. Timeline .....	8
10. Reports .....	11
11. Disputes.....	11
Agreement.....	12

## **1. Acronyms and Abbreviations**

ABC	Acceptable biological catch
ACL	Annual catch limit
CC	Coordinating Committee of WPSAR
Council	Western Pacific Regional Fishery Management Council
MHI	Main Hawaiian Islands
NMFS	National Marine Fisheries Service
PIFSC	Pacific Islands Fisheries Science Center, NMFS
PIRO	Pacific Islands Regional Office, NMFS
RC	Review Chair for a corresponding WPSAR Review
RM	Review Members for a corresponding WPSAR Review, separate from Review Chair
SA	Stock assessment
SAFE	Stock Assessment and Fisheries Evaluation (report)
SC	Steering Committee of WPSAR
SEEM	Social, Economic, and Ecological Management Uncertainty
SSC	Scientific and Statistical Committee of Council
TOR	Terms of Reference
WPSAR	Western Pacific Stock Assessment Review

## **2. Introduction**

Section 301(a)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires that fishery conservation and management measures 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 Regional 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 various review levels, describes the sequencing and timing of the WPSAR process in coordination with the larger Council process, and provides mechanisms for resolving disputes.

## **3. 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 multi-level approach for the review of

stock assessments and other scientific analyses for use in managing fishery resources in the Pacific Islands Region. Each WPSAR review is conducted by a panel of subject matter experts. Stock assessments and other scientific products reviewed and accepted by the scientific advisory bodies of regional fishery management organizations (RFMOs) to which the United States is a member or cooperating non-contracting party are considered to be independently peer-reviewed for the purpose of the NMFS advisory guidelines for NS2, and are not subject to further peer review under the WPSAR process described herein.

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. All WPSAR panel meetings convened as part of the WPSAR process will be subject to notice and public participation provisions of MSA § 302(i)(2)(C).

#### **4. Roles and Responsibilities**

PIFSC, PIRO and the Council are the primary organizations cooperating under this framework. They will form two committees: 1) a Steering Committee to oversee the WPSAR process and 2) a Coordinating Committee to manage the details of the reviews and other WPSAR-related meetings.

The Council, PIFSC and PIRO will share fiscal and logistical responsibilities to support the WPSAR process.

##### ***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 shall meet as needed, but at least annually. Responsibilities of the Steering Committee shall be to:

- Approve and/or provide input to the five year stock assessment plan;
- Assign review level for stock assessments for the upcoming year;
- Assign review level 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;
- Review the upcoming schedule for the Center for Independent Experts (CIE) and nominate additional products to go through CIE review.
- Shall provide a summary of its deliberations and decisions at scheduled meetings of the SSC and Council.

##### ***b. Coordinating Committee***

The Coordinating Committee is drawn from support staff of each organization. Each Steering Committee member shall identify one representative Coordinating Committee member from his or her organization. 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 three 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 level;
- Identify expert Review Members and when required a Review 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 and produce summary reports from Steering Committee meetings;
- Draft all necessary documents, e.g., federal register notices for panel reviews;
- Work with selected reviewers (Review Members and Review Chair) to coordinate their participation as necessary;
- Provide all documents, including the TOR, to each reviewer on a benchmark or update review.
- Resolve any additional business as directed by the Steering Committee.
- Shall provide a summary of its deliberations and decisions at scheduled meetings of the SSC and Council

*(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 NMFS scientific needs and any established national guidelines;
- Ensure, in cooperation with reviewers that the established TOR have been addressed at the close of the review;
- Inform WPSAR Coordinating Committee and Steering Committee members of upcoming CIE reviews of interest;
- Host and update the WPSAR website, ensuring that all relevant documents are electronically published in a timely fashion, retaining a long-term electronic archive; and
- Assist in overall Coordinating Committee functions.

*(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;
- Prepare and post WPSAR meeting notices in the Federal Register as needed; and
- Assist in overall Coordinating Committee 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, including travel of reviewers as required;
- Prepare and post WPSAR meeting notices in the Federal Register as needed;
- Share all appropriate documentation (for example but not limited to: 1) reviewer reports; and 2) final peer-reviewed stock assessment report) with the Council's SSC in appropriate advance of their meeting;
- Coordinate the presentation of WPSAR review results to the SSC; and
- Assist in overall Coordinating Committee functions.

## 5. 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 provide this scientific information for management use, there are two broad categories of assessment: benchmark and update.

- a) **Benchmark assessments** are usually characterized as a new assessment designed for management use. A benchmark encompasses any changes in an assessment beyond simply the addition of recent new years of data. It may apply a model different from those used in prior assessments; use new or additional data sources or model parameters; use new analyses; or be the first assessment of a stock for management.
- b) **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 data, including 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 scientific products are scientifically robust and credible.

Reviews provided by the WPSAR process may be conducted as either benchmark or update reviews, which vary in terms of rigor. Benchmark and update reviews differ in form, timing, scope, and reviewer 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 with NOAA's Conflict of Interest Policy:

([http://www.cio.noaa.gov/services\\_programs/NOAA\\_PRB\\_COI\\_Policy\\_110606.htm#Text](http://www.cio.noaa.gov/services_programs/NOAA_PRB_COI_Policy_110606.htm#Text)).

WPSAR reviews of stock assessments or other scientific products that have management implications may be conducted at either of two levels: **Benchmark** or **Update**. The Steering Committee determines the appropriate level of review. Due to limited personnel and fiscal resources, the Steering Committee must prioritize the review of scientific products on the WPSAR schedule and may agree to alternative procedures as necessary.

**a. Benchmark Review**

As defined above, a benchmark may apply to a broad range of products including completely new assessments, any major changes in an assessment beyond the inclusion of additional years of data, or other scientific products with management implications. Benchmark assessments will result in near-term scientific information for management consideration. Benchmark reviews are the highest level of review under WPSAR.

**b. Update Review**

Update reviews encompass assessment updates, may include other scientific products with management implications, and are the least rigorous in scope. As defined above, an assessment update is only the addition of new time series data. Update assessments will result in near-term scientific information for management consideration.

**c. Exemptions**

Stock assessments and other scientific products reviewed and accepted by the scientific advisory bodies of regional fishery management organizations (RFMOs) to which the United States is a member or cooperating non-contracting party are considered to be independently peer-reviewed for the purpose of the NMFS advisory guidelines for NS2, and are not subject to further peer review under the WPSAR process. These scientific products may result in near-term scientific information for management consideration.

**6. Terms of Reference (TOR)**

As stock assessments are analyses designed to provide particular scientific information 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. 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 for benchmark and update reviews will be approved by the Steering Committee and made publicly available before the review.

**7. 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 reviewers, and review TOR will all be made available on the WPSAR website.

**8. Reviewers**

All WPSAR reviewers (Review Chair and Review Members) will be approved by the Steering Committee. If a Steering Committee member does not respond to queries from their Coordinating Committee regarding proposed reviewer(s), the assumption will be assent.

***Benchmark Reviews:*** Benchmark reviews will be conducted in person (unless otherwise determined by the Steering Committee) by a panel of review members that shall be composed of either 3 or 5 experts, as determined by the Committees. The Steering Committee shall select one expert to be the Chair. Aside from the Chair, all panelists should be external to PIFSC, PIRO and the Council, unless agreed to otherwise by the Steering Committee. Panel membership will depend on the product to be reviewed and expertise of potential reviewers in the subject matter. The Review Chair of the panel will be an SSC member appointed by the Steering Committee, except in cases where

authorship of the reviewed product includes SSC members. In such cases, the Review Chair will be determined by the Steering Committee.

**Update Reviews:** Update reviews will be conducted by up to three expert Reviewer, the exact number to be suggested by the WPSAR Coordinators and approved by the Steering Committee. The exact nature and expertise of the Review Members will depend on the product under review. For update reviews only, the Steering Committee may unanimously agree to a WPRFMC SSC/PIFSC-only review. If the Steering Committee does not agree, then reviewer constraints apply as outlined for benchmark reviews. Update reviews will be desktop reviews unless a consensus of the Steering Committee decides otherwise. If the Steering Committee determines that a panel review is necessary, panel membership and chair will be determined as defined for a benchmark review.

All reviewers are expected to review all contributed documents in advance of the meeting, actively contribute during the meeting, offer solutions with constructive criticism, and conduct themselves respectfully and professionally. Reviewers are selected for their scientific expertise, and in their roles as reviewers they are serving as independent scientific experts and not as representatives of their respective organizations.

**Review Chair:** A Review 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 TOR. The Chair will produce a summary report of the review which will be posted on the WPSAR website in addition to his/her own report as an independent subject matter expert.

**Review Members:** Review Members shall be approved by the Steering Committee. Each Review Member will develop an independent review report which will be posted on the WPSAR website. Each Review Member is expected to fulfill all elements specified in the TOR for the review for which he/she has been selected.

## **9. 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 assessments that may be used for management. 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. There is a different timeline for Main Hawaiian Islands (MHI) Deep 7 bottomfish because the annual catch limit (ACL) for that fishery is set at a different time of year than all other fisheries. This process from when an assessment is decided upon to when management advice is delivered

takes approximately three years. Ideally, reviews of non-stock assessment products will be scheduled mid-year so as to avoid conflicts with stock assessment reviews scheduled for the winter months.



## **10. Reports**

For benchmark reviews, the Review Chair will provide a summary report and Review Members will provide individual reports to the Coordinating Committee at the close of each review that addresses the established TOR. Similarly, for update reviews, Review Members will provide individual reports to the Coordinating Committee at the close of each review that addresses the established TOR. The Review Chair's summary report, individual Review Member reports, as well as the final reviewed product, will be made available to the public on the WPSAR website shortly after they are finalized.

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 considered by assessment authors for the next benchmark stock assessment.

The assessment authors will consider the reviewer reports to incorporate recommended changes into the assessment when possible. 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 a presentation on the results of the WPSAR review by a designated person such as the Review Chair for benchmark reviews. For a desktop review the presentation to the SSC will be made by the assessment author.

## **11. Disputes**

The decisions made by the Steering Committee will be by unanimous agreement (consensus) whenever possible and shall be by majority if consensus cannot be reached. If the Steering Committee cannot come to unanimous agreement regarding the appropriate level of review based on the guidance under Sections 4 and 5, the review will be conducted at a higher level of review to increase objectivity and independence. 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.

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

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Michael Seki  
Director,  
NMFS-Pacific Islands Fisheries Science Center

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Michael Tosatto  
Regional Administrator,  
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