

Framework for Determination of Best Scientific Information Available and Stock Status in the Pacific Islands Region

National Marine Fisheries Service, Pacific Islands Fisheries Science Center

National Marine Fisheries Service, Pacific Islands Regional Office

Western Pacific Fishery Management Council

April 30, 2023

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ABBREVIATIONS

AA - NOAA Assistant Administrator for Fisheries
ABC – Acceptable Biological Catch
BSIA - Best Scientific Information Available
CFR - Code of Federal Regulations
Council - Western Pacific Fishery Management Council
DM - Stock status determination memo
FEP - Fisheries Ecosystem Plan
FMP - Fisheries Management Plan
HMS - Highly Migratory Species
IATTC - Inter-American Tropical Tuna Commission
Magnuson-Stevens Act - Magnuson-Stevens Fishery Conservation and Management Act
MFMT - Maximum Fishery Mortality Threshold
MSST - Minimum Stock Size Threshold
MSY - Maximum Sustainable Yield
NMFS - National Marine Fisheries Service
NS - National Standard
PIFSC - Pacific Islands Fisheries Science Center
PIR - Pacific Islands Region
PIRO - Pacific Islands Regional Office
POC - Point of Contact
OFL - Overfishing limit
OSF - NMFS Office of Sustainable Fisheries
RFMO - Regional Fishery Management Organization
SDC - Status determination criteria
SIS - Species Information System
SSC - Scientific and Statistical Committee
SWFSC - Southwest Fisheries Science Center
TOR - Terms of Reference
WCPFC - Western and Central Pacific Fisheries Commission
WCRO - West Coast Regional Office

In accordance with National Marine Fisheries Service (NMFS) Procedure 01-101-10, “NOAA Fisheries Framework for Determining that Stock Status Determinations and Catch Specifications are Based on the Best Available Scientific Information,” this document describes the process for ensuring that management decisions in the Pacific Islands Region (PIR) are based upon the best scientific information available (BSIA).

1. BACKGROUND

National Standard 1 (NS1) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires that conservation and management measures prevent overfishing while achieving, on a continual basis, the optimum yield from each fishery for the United States fishing industry. Section 303(a) of the Magnuson-Stevens Act and NMFS advisory guidelines for interpreting the national standards (see 50 CFR 600.305) requires each fishery management plan (FMP) or fishery ecosystem plan (FEP) to describe methods used to determine the overfishing and overfished status for each stock or stock complex included in a plan. These methods employ status determination criteria (SDC), including maximum fishing mortality threshold (MFMT), overfishing limit (OFL), minimum stock size threshold (MSST), and/or their proxies. Additionally, Section 304(e) of the Magnuson-Stevens Act requires NMFS to report annually to Congress and the regional fishery management councils, the status of fisheries within each regional fishery management council’s geographic area of authority, and identify those stocks that are subject to overfishing, overfished or approaching a condition of being overfished based on the SDC of the applicable plan.

National Standard 2 (NS2) of the Magnuson-Stevens Act requires the use of “best scientific information available” when developing the conservation and management measures for plans, amendments to plans, and regulations promulgated to implement any such plan or plan amendment. Additionally, NMFS advisory guidelines for NS2 strongly recommend that scientific information that supports conservation and management measures be peer reviewed to ensure that the quality and credibility of the information meets the standards of the scientific and technical community.

The Magnuson-Stevens Act and NS2 guidelines provide legislative and policy context for the scientific basis of stock status determinations, catch recommendations and specifications, but they do not describe the specific steps involved. Per 302(g)(1)(E) of the Magnuson-Stevens Act, peer review processes established by the Secretary of Commerce and a regional fishery management council are deemed to satisfy the requirements of the Office of Management and Budget Final Information Quality Bulletin for Peer Review. The regional peer review processes developed by NMFS and the councils are described in the 2016 Federal Register Notice entitled Regional Peer Review Processes (81 FR 54561; August 16, 2016). NMFS Procedure 01-101-10 provides a framework for following the steps in the BSIA process, and complements NS1, NS2, and sections 302(g)(1)(B) and (E) of the Magnuson-Stevens Act.

The NMFS Pacific Islands Fisheries Science Center (PIFSC) has the lead role in scientific research and monitoring programs that support conservation and management of living marine resources in the PIR. PIFSC responsibilities include preparing stock assessments for federally-managed stocks and determining NMFS position on scientific matters, including NMFS determinations of BSIA. For the purpose of this document, the term “stock assessment” is used to represent a range of analyses, from data-limited to comprehensive approaches. For stock

assessments pertaining to highly migratory species (HMS) managed under both the Pelagics FEP and the West Coast HMS FMP, PIFSC also collaborates with the NMFS Southwest Fisheries Science Center (SWFSC) and science providers to the two Regional Fishery Management Organizations (RFMO) with management authority over HMS in the Pacific Ocean. These include the Inter-American Tropical Tuna Commission (IATTC) and the Western and Central Pacific Fisheries Commission (WCPFC).

The Western Pacific Fishery Management Council (Council) is responsible for developing FEPs and plan/regulatory amendments for Pacific Island fisheries by working with fishing communities, industry, and stakeholders. The Pacific Fishery Management Council fulfills this role for fisheries based on the West Coast. The Councils provide recommendations to NMFS on annual catch limits, rebuilding plans, and other conservation and management measures. The Councils rely on their Scientific and Statistical Committees (SSC) to provide advice and recommendations based on scientific information that the SSCs determine to meet the guidelines for best scientific information available as described in NS2.

NMFS Pacific Islands Regional Office (PIRO) implements and administers federal fisheries management in accordance with provisions of the Magnuson-Stevens Act, including the national standards and other applicable laws. PIRO is also tasked with determining the status of federally-managed stocks and identifying those stocks that are subject to overfishing, overfished, or approaching a condition of being overfished and working with the Council to end overfishing and rebuild overfished stocks. For HMS managed under both the Pelagics FEP and HMS FMP, PIRO also conducts these activities in coordination with NMFS West Coast Regional Office (WCRO).

Stock status determinations made by NMFS and management actions such as catch specifications (e.g., annual catch limits, annual catch targets, etc.) and rebuilding plans must be consistent with the BSIA. In general, catch recommendations made by a Council's SSC lead to a Council's catch specifications, which are reviewed by NMFS for approval. Although it is ultimately the responsibility of NMFS to make stock status determinations, implement catch specifications, and certify that these decisions are consistent with BSIA, the agency relies on input and advice from the SSC and peer review processes. The NS2 guidelines explain that the "SSC scientific advice and recommendations to its Council are based on scientific information that the SSC determines to meet the guidelines for [BSIA] as described in [50 CFR 600.315(a)]." There will be three key points in the scientific and management review process where the quality of the scientific information as BSIA is confirmed:

1. PIFSC records the final stock assessment in the NMFS Species Information System (SIS), which indicates the assessment provides information consistent with the BSIA process (See **2.2.4.2.1. PIFSC Actions**).
2. The SSC asserts that it is using BSIA when they make recommendations to their Council (see **2.2.4.1. SSC actions**).
3. When finalizing a management action, PIRO considers the entire process when it certifies that the action is consistent with BSIA (See **2.2.4.3 Catch Recommendations and Implementation**).

The following process outlines the steps in the process in accordance with those described in NMFS Procedure 01-101-10. For more background on the policy, please refer to this document.

2. BSIA FRAMEWORK

2.2. Domestic Fisheries

2.2.1. Scheduling and Terms of Reference

Based on the PIR's prioritization process and schedule, draft stock assessments for domestic fisheries are prepared to provide technical information to inform stock status determinations and catch specifications. Stock assessments should be guided by terms of reference (TOR) that clarify what approaches and potential changes to previous methods are within scope, and what management objectives will be addressed (e.g., stock status determinations, catch recommendations, and/or evaluations of control rules and reference points). NMFS' strategic guidance for stock assessments (Implementing a Next Generation Stock Assessment Enterprise, Box 10.5) offers general statements to guide the peer review TOR for stock assessments. In the case of stock assessment products that were not developed by NMFS (e.g., were developed by university or other sources), it is expected that these products adhere to regional stock assessment and peer review TOR in order to be considered consistent with BSIA.

2.2.2. Peer review

Draft stock assessments must be subject to independent peer-review according to a NS2 compliant process, and technical comments that may influence the final assessment product are expected to be made through the established review processes. In the PIR, the Western Pacific Stock Assessment Review (WPSAR) process serves this process for assessments of domestic stocks, as identified in the *Federal Register* notice on peer review processes. The WPSAR process is a cooperative effort between PIFSC, PIRO and the Council to improve the quality, timeliness, objectivity, and integrity of stock assessments and other scientific information used in PIR fishery management. There are two committees that oversee and execute the WPSAR process, the WPSAR Steering Committee and the WPSAR Coordinating 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. Each Steering Committee member identifies one representative Coordinating Committee member from his or her organization. Primary responsibilities of the Coordinating Committee include planning an annual meeting of the Steering Committee and providing logistic support in convening the WPSAR meetings and archiving the review reports.

PIFSC, PIRO and the Council have previously developed the WPSAR review framework, which outlines the scope of WPSAR, defines roles and responsibilities, summarizes the types and levels of peer review, and describes the sequencing and timing of the WPSAR process in coordination with the larger Council process. Reviews of stock assessments are conducted on a schedule determined by the WPSAR Steering Committee at its annual public meeting. Peer reviews should be conducted in a publically accessible format, with the review noticed in the *Federal Register*, and draft assessments made publicly available during the peer review.

2.2.2.1 Scope of the review

The elements to be addressed should be identified in the TOR for the assessment and its review. The TOR for the assessment and its review should identify the scope of scientific analysis being considered and which topics will be addressed. Ultimately, the review is of the scientific product, not of the subsequent status determination.

The WPSAR evaluates the entirety of the assessment and explicitly and separately considers whether the assessment provides a good scientific basis for subsequent management decisions and actions for management unit species within FEPs managed under the MSA or other applicable US laws. Several key elements may be included in the TOR, including:

1. Stock status relative to overfishing SDC
2. Stock status relative to overfished SDC, including whether the stock is approaching an overfished condition
3. Projections from the stock assessment that would be used to determine overfishing limit (OFL) and acceptable biological catch (ABC)
4. Technical merits of potential revisions to SDCs, harvest control rules, or other management actions that are analyzed within the stock assessment, per the terms of reference

Not all of these topics would be addressed in every assessment, and additional topics may be addressed as TOR. Guidance on examples of TOR is also found in NMFS Procedure 01-101-10, Appendix C.

2.2.2.2. Alternative methods

It is possible that the review may conclude that an assessment supports some, but not all, of the topics in the TOR. If an alternative method is being considered to address this situation, the alternative method should also receive an appropriate level of peer-review, according to the assessment and peer review TOR.

2.2.3. Post-WPSAR Process

2.2.3.1. Revision of the assessment

Review panel members will provide recommendations during the workshop, and in a written report submitted to the Council following the workshop on a timeline defined in the TOR. As appropriate, assessment authors revise the assessment based on peer review findings and recommendations, and in accordance with the regional assessment review process. In some cases, authors can address revisions during the WPSAR workshop, whereas in others, additional work will be done and documented after the review workshop.

The degree of follow up work is constrained by the peer review terms of reference. Research recommendations and other recommendations outside the scope of the TOR should not be addressed in the current stock assessment, particularly if doing so will substantially delay the delivery of results and subsequent management actions.

2.2.3.2. Revised Peer-Reviewed Assessment

Stock assessment authors publish a revised draft of the assessment, incorporating short-term revisions as recommended by the review panel. The peer review panel does not need to review

responses and revisions made after a peer review workshop, but the responses and revisions made as a result of the peer review should be well-documented in the revised assessment. NMFS and the SSC should coordinate to determine if the revised assessment appropriately addresses review panel recommendations. This can be done in the meeting where the assessment is presented to the SSC and may be reflected on the SSC report.

2.2.4. SSC and NMFS Actions

2.2.4.1. SSC actions

The revised, peer-reviewed assessment and peer-review findings are delivered to and reviewed by the SSC. When the SSC is evaluating an assessment, they should not repeat the previously conducted and detailed technical peer review. However, SSCs must maintain their role as advisors to the Council about scientific information that comes from a peer review process. The SSC should evaluate the adequacy of the WSPAR review and sufficiently understand the assessment and consider any uncertainties before making recommendations. The SSC shall conduct their evaluation within the scope of the TOR, particularly whether the WSPAR Report adequately met the TOR, and address comments and recommendations appropriately to maintain a consistent evaluation framework for assessments and other science products. The SSC shall also evaluate whether the revised peer-reviewed assessment appropriately addressed recommendations and issues identified in the WSPAR reports.

A NMFS staff person from PIFSC will serve as the point of contact (POC) for the SSC and Council to address potential science questions and concerns that arise during discussions, and a NMFS staff person from PIRO will serve as the POC for management questions and concerns. For each review, the Director of PIFSC Fisheries Research and Monitoring Division will assign the POC for PIFSC, and the Assistant Regional Administrator for PIRO Sustainable Fisheries Division will assign the POC for PIRO. NOAA representatives on SSCs will not fulfill these roles. The POCs should be available (i.e., reachable but not necessarily present physically) to function in an advisory capacity and provide feedback on potential SSC decisions and recommendations that may be uncertain in regard to compliance with policies. Deliberations by the SSC regarding BSIA, SDC, and other aspects of stock status will be considered by NMFS when making stock status determinations. This BSIA framework outlines the next steps for SSC actions for three potential outcomes of an external peer-review.

1. If the peer review found that the assessment does not provide sufficient basis for one or more of the topics described the TOR, the SSC, in consultation with NMFS, should consider other sources of information to support those actions, and provide sufficient justification for its recommendations. Alternative approaches considered by the SSC should, to the extent feasible, be based on peer-reviewed information.
2. If the assessment has passed peer-review, the SSC considers the peer-reviewed assessment, seeks clarifications where necessary, and determines whether the NS2 guidelines have been met. The NS2 guidelines describe that the criteria to consider when evaluating BSIA are: relevance, inclusiveness, objectivity, transparency and openness, timeliness, verification and validation, and peer review, as appropriate (see 600.315(a)(6)). If the SSC determines the information in the assessment meets the NS2 guidelines for BSIA, they make recommendations for the ABC to the Council.

3. In accordance with 50 CFR 600.315(c)(5), if the SSC disagrees with the findings or conclusions of the 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 and could be included within the SSC meeting summary.

In the case where the SSC is evaluating the external peer-review report and revised peer-review assessment, the SSC shall acknowledge in its SSC report that they concurred with the WPSAR Panel and the SSC considers the revised peer-reviewed assessment as best scientific information available for the scientific advice they would be providing the Council. The SSC report will be part of the documentation of the BSIA determination process.

In a case where the SSC is the body that conducts the peer review of an assessment or other sources of information, the peer review process should, to the extent feasible, clearly conclude before the catch recommendation process begins. This sequential process is supported by NS2 guidelines and will ensure transparency and delineations between the multiple roles of an SSC.

2.2.4.2. NMFS actions

In the case of significant ambiguity in peer reviewed assessment findings or disagreement by the SSC with the findings, NMFS will consult with and consider any additional input provided by the SSC prior to finalizing the assessment results. The NMFS POCs will play an important role in communication and determining whether additional work is needed to address any disagreement between the SSC and the peer review findings and in communicating final decisions regarding stock status and BSIA determinations.

2.2.4.2.1. PIFSC Actions

After the assessment review and completing any necessary subsequent revisions, PIFSC finalizes and publishes the assessment. If the PIFSC Director determines the assessment represents BSIA, PIFSC records the assessment results into a centralized repository (currently the NMFS Species Information System, or SIS). PIFSC will also document the Science Director's determination whether an assessment is BSIA through a decision memorandum to PIRO (See **Appendix 1**). The Council will be provided a copy of the decision memorandum. The memorandum will summarize the assessment information including models and data used, and provide numerical values for maximum sustainable yield (MSY) and other biological reference points relevant to stock status determinations. The memorandum will also summarize information from the previous assessment for the stock, where applicable. Should an assessment not constitute BSIA, the memorandum will summarize why it does not and identify the BSIA that should be used to support management action. NMFS finalizes the process indicating the assessment provides information that is consistent with the BSIA process by locking the record in SIS.

2.2.4.2.2. PIRO Actions

Stock Status Determination Memo

Upon receipt of the BSIA memo from PIFSC, PIRO will begin the procedures for determining stock status, consistent with the process described in Procedural Directive (PD) 01-101-09 (Procedures to Determine Stock Status and Adequate Progress). If the information provided in the new stock assessment indicates the stock is not subject to overfishing and is not overfished or

not approaching a condition of being overfished, and this is consistent with the current stock status determination on record, a stock status determination memo (DM) is not necessary. However, a DM is necessary if one of the following conditions exists for the stock:

1. Subject to overfishing, or remains subject to overfishing.
2. Overfished, or remains overfished.
3. Approaching an overfished condition.
4. No longer subject to overfishing.
5. No longer overfished.
6. No longer approaching an overfished condition.
7. Rebuilt.
8. Now known status (where status was previously unknown).
9. Now unknown status (where status was previously known).
10. Change to a stock's management unit.

Additional guidance on changing stock status from known to unknown can be found in NMFS PD 01-101-11. The process of developing a DM is coordinated between PIRO and NMFS Office of Sustainable Fisheries (OSF). PIRO will first provide the OSF with information supporting current and proposed status determinations (see **Appendix 2**). OSF will then draft a DM (**Appendix 3**) from the Director of OSF to the Assistant Administrator for Fisheries (AA), and provide the draft DM to PIRO for review and approval including clearance from the Pacific Islands General Counsel. After the PIRO Regional Administrator approves the content of the draft DM, OSF initiates headquarters review of the DM and then transmits the DM to the AA for concurrence.

NMFS strives to make stock status determinations as soon as possible after SSC deliberation on the assessment. Only in rare cases will NMFS make a stock status determination before the SSC has deliberated on the assessment.

Letter to the Council

Per Magnuson-Stevens Act section 304(e) requirements and NS1 guidelines, PIRO will notify the Council in writing when a stock is subject to overfishing, overfished, approaching an overfished condition. The correspondence will include a rationale for the decision and will inform the Council of its obligations to end overfishing and rebuild overfished stocks. PIRO will also notify the Council when a stock is no longer subject to these conditions. A copy of the decision memo used to make the determination can be provided upon request. Additionally, PIRO will work with OSF to develop the *Federal Register* notice announcing the overfishing or overfished condition of a stock and the Council's obligations under the Magnuson-Stevens Act to end overfishing and rebuild overfished stocks.

Stock Status Determination with SIS

PIRO will update the SIS Status Determination Database to reflect the official stock status determination. For stocks listed on the Fisheries Stock Sustainability Index, OSF will document the stock status in the quarterly updates and annual report to Congress.

2.2.4.3 Catch Recommendations and Implementation

Following from the information in the finalized stock assessment and SSC recommendations, the Council develops recommendations for management measures, including catch limits and accountability measures, using the process described in the relevant FEP. In cases where there are BSIA concerns with the basis for catch limits, NMFS will strive to inform the Council in time for the Council to amend its recommendation.

NMFS reviews Council catch recommendations, determines whether they are consistent with national standards (including NS2's BSIA requirement), other provisions of the Magnuson-Stevens Act, and other applicable laws, and implements the recommendations as regulations or specifications. If the regional BSIA framework is correctly followed, the output of this process will be determined to represent BSIA. NMFS will document its consistency determination in a Decision Memo associated with the regulation package.

2.3. International Fisheries

PIFSC staff will participate in some stock assessments and reviews of assessments prepared for stocks in the western and central Pacific Ocean (WCPO) and in the eastern Pacific Ocean (EPO). In some cases, PIFSC and SWFSC will share the responsibility, as outlined in the Operating Agreement for Shared Programmatic Activities between PIFSC and the Southwest Regional Office (30-119-01-07). In addition to management efforts by NMFS and the Councils, management of these stocks is shared with the WCPFC and IATTC. The WCPFC has authority over fisheries operating in the WCPO and the IATTC has authority for fisheries operating in the EPO. NMFS and the Council, via the Council process, have the authority of domestic management of internationally-assessed fish stocks pursuant to obligations under the Magnuson-Stevens Act. NMFS executes those RFMO regulations and authority under the WCPFC Implementation Act and Tuna Conventions Act.

2.3.1. Peer review

As described in the WPSAR review framework, stock assessments and other scientific products reviewed and accepted by the scientific committee or committees of a RFMO to which the United States is a member 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; but noting that these RFMO subsidiary committees review scientific products with respect to international management needs. Accordingly, there is no separate process for peer-review and acceptance of international stock assessments. Although PIFSC scientists may lead or participate in stock assessments for stocks managed as international fisheries, these assessments are not PIFSC assessments, and are not subject to WPSAR or SSC review prior to being finalized.

2.3.2. SSC and NMFS Actions

2.3.2.1. SSC actions

After a stock assessment has undergone appropriate review by the scientific body of the RFMO, the final assessment is made available to the SSC. PIFSC selects appropriate proxies for calculating SDCs from among the assessment results and provides peer-reviewed assessment reports to the Council for consideration by the SSC. The Council, based on SSC advice, may request PIFSC provide alternative proxies for calculating SDCs from among the assessment

results. PIFSC staff support the SSC by summarizing and describing the choice of proxies. The SSC may seek clarifications where necessary prior to providing management advice to the Council.

2.3.2.2. NMFS Actions

2.3.2.2.1. Science Center Actions

After a stock assessment has undergone appropriate review by the scientific body of the RFMO, the Science Director of the lead Science Center (i.e., PIFSC or SWFSC) will determine whether the assessment represents the BSIA in accordance with NS2 guidelines. However, finalized assessments, relevant RFMO scientific or subsidiary reports, and proxies for calculating SDCs from among the assessment results should be made available to the SSC to provide comment (if necessary) to PIFSC prior to PIFSC making a BSIA determination. If the assessment is determined to be BSIA, staff from the lead Science Center will update the SIS Assessment Database and input the numerical values for MSY and other biological reference points relevant to the SDC of the applicable FEP/FMP.

The lead Science Center will also document the BSIA decision in a memorandum from the Science Center(s) to the Regional Office(s) (see **Appendix 1**). The memorandum will summarize the assessment information including the preparer, models, and data used, and provide numerical values for MSY and other biological reference points relevant to the SDC of the applicable FEP/FMP. The memorandum will also summarize information from the previous assessment for the stock, where applicable. If an assessment does not provide numerical values for biological reference points relevant to the SDC of the applicable FEP/FMP, the PIFSC should attempt to calculate those values using the assessment information and include them in the memorandum. If this is not possible, the memorandum should clarify that these values are unknown.

2.3.2.2.2 Regional Office Actions

Stock Status Determination Memo

Upon receipt of the BSIA memo from the lead Science Center, the lead Regional Office will begin the procedures for determining stock status, consistent with the process outlined in Procedural Directive 01-101-09. If the information provided in the assessment indicates the stock is not subject to overfishing and is not overfished or not approaching a condition of being overfished based on the SDC in the applicable FMP or FEP, and this is consistent with the current stock status determination on record, a DM is not necessary. However, a DM is necessary if one of the following conditions exists for the stock:

1. Subject to overfishing, or remains subject to overfishing.
2. Overfished, or remains overfished.
3. Approaching an overfished condition.
4. No longer subject to overfishing.
5. No longer overfished.
6. No longer approaching an overfished condition.
7. Rebuilt.
8. Now known status (where status was previously unknown).
9. Now unknown status (where status was previously known).
10. Change to a stock's management unit.

The process of developing a DM is coordinated between the lead regional office and NMFS OSF. The regional office will first provide the OSF with information supporting current and proposed status determinations (see **Appendix 1**). OSF will then draft a DM () from the Director of OSF to the Assistant Administrator for Fisheries (AA), and provide the draft DM to the regional office for review and approval (including clearance from the appropriate General Counsel). After the lead Regional Administrator approves the content of the draft DM, OSF initiates headquarters review of the DM and then transmits the DM to the AA for concurrence.

Letter to the Council

If a stock is determined to be subject to overfishing or is overfished, or approaching a condition of being overfished, the RA(s) will inform the Council(s) in writing of their obligations pursuant to section 304(e) and/or 304(i) of the Magnuson-Stevens Act to end overfishing and rebuild overfished stocks. The Regional Office(s) will also notify the Council when a stock is no longer subject to these conditions. A copy of the decision memo used to make the determination can be provided upon request. The lead Regional Office(s) will work with OSF to develop the *Federal Register* notice announcing the overfishing or overfished condition of a stock and the Council's obligations under the Magnuson-Stevens Act to end overfishing and rebuild overfished stocks.

Stock Status Determination with NMFS

The lead Regional Office will update SIS Status Determination Database to reflect the official stock status determination. For stocks listed on the Fisheries Stock Sustainability Index, OSF will document the stock status in the quarterly updates and annual report to Congress.

2.3.2.3 Catch Recommendations and Implementation

International management measures for stocks in the WCPO are adopted through the WCPFC, and measures for stocks in the EPO are adopted through the IATTC. The United States is obligated to implement decisions of the IATTC and WCPFC under the Tuna Conventions Act and the Western and Central Pacific Fisheries Convention Implementation Act, respectively. Regulations implemented under the Tuna Conventions Act, in accordance with resolutions of the IATTC, apply to U.S. fishing vessels targeting or pursuing HMS within the IATTC Convention Area. Regulations implemented under the Western and Central Pacific Fisheries Convention Implementation Act, in accordance with WCPFC resolutions, apply to U.S. fishing vessels targeting or pursuing HMS within the WCPFC Convention Area. For international stocks that are determined to be overfished or experiencing overfishing based on SDC in the applicable FEP/FMP, and for which the overfishing or overfished condition is predominantly due to international fishing pressure, domestic management measures are addressed by the relevant Council and NMFS consistent with section 304(i) of the Magnuson-Stevens Act. Where review and recommendations are needed from the Council, NMFS will support the decision-making process with the BSIA for management and guidance on statutory and regulatory obligations.

3. REVISION

Revisions and amendments to this document may be made with agreement and signature of the Science Director, Regional Administrator, and Executive Director.



April 4, 2023

Tia Brown

Date

Acting Science Director, PIFSC

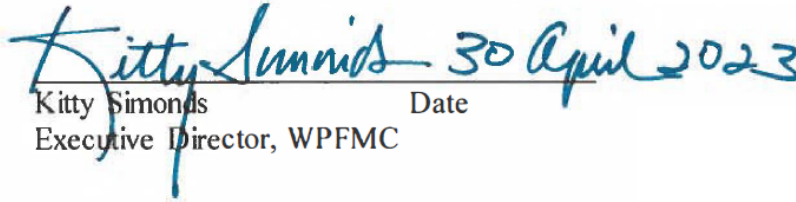


April 10, 2023

Sarah Malloy

Date

Acting Regional Administrator, PIRO



30 April 2023

Kitty Simonds

Executive Director, WPFMC

APPENDIX 1 BEST SCIENTIFIC INFORMATION AVAILABLE DETERMINATION TEMPLATE

MEMORANDUM FOR: [Name]
Administrator, Pacific Islands Regional Office

FROM: [Name]
Director, Pacific Islands Fisheries Science Center

SUBJECT: Determination of Best Scientific Information Available for the
[geographical area] [species name]

The Pacific Islands Fisheries Science Center has determined for the [geographical area] [species name] stock, the *best scientific information available* comes from the [year] stock assessment [update/benchmark] conducted by [name scientific body] and reviewed and accepted by [insert review body, whether WPSAR or RFMO].

BACKGROUND

In [year], the [name scientific body] completed this stock assessment [provide details...who was involved, data sources, how NMFS was involved...]. A [insert model] model was used [describe changes to assumptions and parameters, other important items regarding the model here]. This assessment was discussed, reviewed, and approved by [insert review body]. Based on this review, PIFSC believes that this assessment meets requirements under National Standard 2 of the Magnuson-Stevens Fisheries Conservation and Management Act (MSA), is applicable for judging the status of the [geographical area] [species name] stock, and provides effective parameters and guidance in the management of this fishery.

CURRENT STOCK ASSESSMENT SUMMARY

- This stock assessment was conducted and finalized in [year], using data through [year].
- [describe agreed upon biological reference points (BRP) or status determination criteria (SDC) and who set them].
- [brief assessment model description]
- [results of note, compare to previous assessment]
- [how is the stock doing? Trends in biomass and fishing mortality]
- This stock is [*overfished/not overfished*], and [*undergoing overfishing/not undergoing overfishing*]. The previous assessment in [year] also concluded the [same/different, if different describe how] stock status.
- [other results of note: retrospective patterns? Poor diagnostics? How this might affect results]
- [if applicable, provide link to assessment report]

Table 1: Information from the previous stock assessment and current stock assessment of the [geographical area] [species name]

Abbreviations

B	Biomass	MFMT	Maximum fishing mortality threshold
F	Fishing mortality	MSST	Minimum stock size threshold
FEP	Fishery Ecosystem Plan (domestic)	MSY	Maximum sustainable yield
M	Natural mortality rate	SB	Spawning stock biomass

Element	Previous Assessment	Current Assessment
Year assessment was finalized		
Most recent data year used in assessment		
Overfishing criteria (MFMT) in the assessment	Ex: $F_{MSY} > 1.0$	
Overfishing determination in the assessment		
Overfished criteria (MSST) in the assessment	Ex: $(1-M)B_{MSY}$	
Overfished determination in the assessment		
Model used		
M		
F_{MSY} or proxy	If proxy, define	
F_{year} estimate		
F_{year}/F_{MSY}		
$F_{year}/MFMT$ in the assessment		
B_{MSY} or proxy	If proxy, define	
B_{year} estimate		
B_{year}/B_{MSY}		
$B_{year}/MSST$ in the assessment		
MFMT of FEP	Include rule such as $(F/F_{MSY} > 1.0)$	
MSST of FEP	Include rule such as $(B/B_{MSY} = 1-M)$	
MSST of the FEP (in weight of fish)		
$F_{year}/MFMT$ of the FEP		
$B_{year}/MSST$ of the FEP		
Overfishing determination based on the MFMT of the FEP		
Overfished determination based on the MSST of the FEP		
Date independent peer review was completed		

APPENDIX 2

SUMMARY OF ASSESSMENT INFORMATION FROM PIRO TO OSF

Abbreviations

B	Biomass	MFMT	Maximum fishing mortality threshold
F	Fishing mortality	MSST	Minimum stock size threshold
FEP	Fishery Ecosystem Plan (domestic)	MSY	Maximum sustainable yield
M	Natural mortality rate	SB	Spawning stock biomass

Element	Previous Assessment	Current Assessment
Year assessment was finalized		
Most recent data year used in assessment		
Overfishing criteria (MFMT) in the FEP	Ex: $F_{MSY} > 1.0$	
Overfishing determination based on the MFMT of the FEP		
Year and amendment that implemented overfishing criteria		
Overfished criteria in the FEP	Ex: $(1-M)B_{MSY}$	
Overfished determination based on the MSST of the FEP		
Year and amendment that implemented overfishing criteria		
<i>Overfishing criteria used in the assessment¹</i>	<i>Ex: $F_{MSY} > 1.0$</i>	
<i>Overfishing determination in the assessment¹</i>		
<i>Year RFMO implemented overfishing criteria¹</i>		
<i>Overfished criteria in the assessment¹</i>	<i>Ex: $(1-M)B_{MSY}$</i>	
<i>Overfished determination in the assessment¹</i>		
<i>Year RFMO adopted overfished criteria¹</i>		
Model used		
M		
F_{MSY} or proxy	If proxy, define	
F_{year} estimate		
F_{year}/F_{MSY}		
B_{MSY} or proxy	If proxy, define	
B_{year} estimate		
B_{year}/B_{MSY}		
Identify peer review and final acceptance process, if applicable		
Date independent peer review was completed		

¹ For certain federally-managed species, stock assessments are conducted by an international scientific bodies which may apply overfishing/overfished criteria that are different than those used in the FEPs. For example, under the Pelagic FEP, Western and Central Pacific bigeye tuna is considered overfished when $B/B_{MSY} < 0.6$. However, under limit reference points adopted by the Western and Central Pacific Fisheries Commission, bigeye tuna is considered overfished when $SB < 0.20 SB$ in the absence of fishing. Therefore, this table includes fields that allow NMFS to capture these differences.

APPENDIX 3
DECISION MEMORANDUM FOR STOCK STATUS UPDATES TEMPLATE

MEMORANDUM FOR: [Name]
Assistant Administrator for Fisheries

CLEARED THROUGH: [Name]
Regional Administrator

FROM: [Name]
Director, Office of Sustainable Fisheries

SUBJECT: Recommended Stock Status Determination for [insert stock name] -- DECISION MEMORANDUM

For the [insert stock name] I recommend: If recommending more than one stock, list all stocks if the recommendation for overfishing and overfished status determinations is the same. If recommendation is different for multiple stocks in the same fishery management plan (FMP), list stocks and recommendations separately in bullets below:

- *Changing the overfishing/overfished status from [insert current status] to [proposed status]; and*
- *Maintaining the current overfishing/overfished status of [insert current status]. This is only included if this status was evaluated.*

If only overfishing or overfished status determination was reviewed, include a sentence that makes this clear: *The [overfishing or overfished] status was not evaluated at this time and remains [insert current status].*

Please indicate below if you concur with this recommendation.

BACKGROUND

Brief description of stock, FMP, and any other relevant information.

INFORMATION BASIS FOR CURRENT STATUS

Include the following in this section:

- Describe the overfishing and overfished status determination criteria and year they were implemented. Example: *Criteria for determining the stock's overfished status were implemented in Amendment 16 in 2005. A stock is overfished if the stock size is less than the minimum stock size threshold (MSST), where $MSST = \max(0.5, 1-M) * SSB_{MSY}$ and M is the natural mortality rate. A stock is subject to overfishing if the fishing mortality rate is greater than the maximum fishing mortality threshold (MFMT), which is equal to F_{MSY} , where $F_{MSY} = F_{30\%SPR}$.*

- Provide the year the previous assessment was finalized, the last data year used in the previous assessment, and what the overfishing and overfished determinations were that were supported by the previous assessment, stated as, “*The previous assessment was finalized in [year], using data through [year], which supported a determination that the stock was....*” Indicate model used in the assessment.
- State the numerical estimates for fishing mortality and stock size (or their proxies) and how they compare to the overfishing and overfished reference points, and B_{MSY} (or proxy). Example: *The stock is not subject to overfishing because the fishing mortality rate ($F_{2008}=0.24$) is less than the MFMT ($MFMT=0.32$), and is not overfished because the stock size ($B_{2008}=53,450$ mt) is greater than the MSST ($MSST=22,500$ mt); the stock size is also greater than B_{MSY} ($B_{MSY}=45,000$ mt).*

INFORMATION BASIS FOR RECOMMENDED STATUS

Include the following in this section (if applicable):

- Describe the status determination criteria used in the most recent assessment (if they are the same as in previous assessment, this can be stated).
- Indicate the year the current assessment was finalized, the last data year used in the assessment, and provide the overfishing and overfished status determinations that would be supported by the current assessment, stated as, “*The current assessment was finalized in [year], using data through [year], which supports a determination that....*” Indicate model used in the assessment and if there are any significant issues, such as a retrospective pattern.
- State the overfishing and overfished determinations that are supported by comparison of the current estimate of fishing mortality and stock size (or their proxies) to the overfishing and overfished reference points, and B_{MSY} (or proxy). Example: *The assessment supports a finding of subject to overfishing because the fishing mortality rate ($F_{2008}=0.34$) is greater than MFMT ($MFMT=0.32$), and overfished because stock size ($B_{2008}=3,450$ mt) is less than MSST ($MSST=22,500$ mt); the stock is less than B_{MSY} ($B_{MSY}=45,000$ mt).*
- Identify final acceptance process (e.g., Scientific and Statistical Committee), peer review, if applicable (e.g., Center for Independent Experts), and when these were completed.
- Provide statement that the assessment represents the best scientific information available.
- If stock is declared overfished for the first time, describe the specific action that NMFS will recommend to the Council in response to acceptance of this recommended status change, such as developing a rebuilding plan.

NOTE: A table can be inserted here in lieu of providing some of the information above and is recommended if multiple stocks are included in the DM.

Example 1 (for status determinations)

Stock	Most Recent Assessment Year	Most Recent Data Year	Subject to Overfishing?	Overfished?
Blue rockfish	2014	2013	Yes	No
Yellow tang	2014	2013	No	No
Red tilefish	2014	2013	No	Yes

Example 2 (for stock assessment estimates)

Stock	F	F _{MSY}	B	MSST	B _{MSY}
Blue rockfish	0.3	0.2	3,000 mt	2,500 mt	5,000 mt
Yellow tang	0.2	0.3	6,000 mt	5,500 mt	11,000 mt
Red tilefish	0.3	0.4	9,000 mt	12,000 mt	24,000 mt

Example 3 (for catch data)

Stock	Catch	OFL	Catch/OFL
Blue rockfish	500 mt	400 mt	125%
Yellow tang	1,500 mt	1,800 mt	83%
Red tilefish	3,000mt	4,000 mt	75%

RECOMMENDATION

I recommend that you:

Determine that the [insert stock] is now [insert status here for stocks that have a change in status].

Determine that the [insert stock] remains [insert status here for stocks that continue to be subject to overfishing or overfished].

1. I concur. _____ Date

2. I do not concur. _____ Date