

Annex 2: Terms of Reference for the Peer Review

External Independent Peer Review by the Center for Independent Experts under the Western Pacific Stock Assessment Review framework:

2023 Benchmark Stock Assessment for the
Main Hawaiian Islands Deep7 Bottomfish Complex

For questions 1-8 (and each sub-question therein), reviewers shall provide a “yes” or “no” response with explanations to provide clarification and will not provide an answer of “maybe.” Only if necessary, caveats may be provided to these yes or no responses, but when provided, they must be as specific as possible to provide direction and clarification.

1. Of the data considered for inclusion in the assessment, were final decisions on inclusion/exclusion of particular data appropriate, justified, and well-documented?
2. Is the CPUE standardization correctly applied and appropriate for this complex, fishery, and available data?
3. Are the assessment models used reliable, properly applied, adequate, and appropriate for the complex, fishery, and available data?
4. Are decision points and input parameters reasonably chosen?
5. Are primary sources of uncertainty documented and presented?
6. Are model assumptions reasonably satisfied?
7. Are the final results scientifically sound, including estimated stock status in relation to the selected biological reference points and overfishing limits, and can the results be used to address management goals stated in the relevant FEP or other documents provided to the review panel?
8. Are the methods used to project future population status adequate, including the characterization of uncertainty, and appropriately applied for meeting management goals as stated in the relevant FEP?
9. If any results of these models should not be applied for management purposes with or without minor short-term further analyses (in other words, if any responses to any parts of questions 1-8 are “no”), indicate
 - Which results should not be applied and describe why, and
 - Which alternative set of existing stock assessment results should be used to inform setting fishery catch limits instead, and describe why.
10. Can the opakapaka stock assessment be used to provide more information about the overall status of the complex?
11. As needed, suggest recommendations for future improvements and research priorities. Indicate whether each recommendation should be addressed in the short/immediate term (2 months), mid-term (3-5 years), and long-term (5-10 years). Also indicate whether each recommendation is a high priority (likely most affecting results and/or interpretation), mid priority, or low priority.

12. Draft a report (individual reports from each panel member and a Summary Report from the Chair) addressing the above TOR questions.