

INITIAL NATIONAL MARINE FISHERIES SERVICE (NMFS) RESPONSE TO EVALUATION OF PACIFIC FISHERY MANAGEMENT COUNCIL STOCK ASSESSMENT REVIEW PROCESS

NMFS appreciates the Pacific Fishery Management Council (Council) for commissioning an evaluation of its groundfish stock assessment process and engaging with the Council community to identify specific actions for improving the process. NMFS also appreciates the Council's and Lynker Corporation's transparency in identifying and addressing errors in the original report resulting from the use of generative Artificial Intelligence. The report's main themes provide an important building block for considering further improvements to the groundfish stock assessment review process.

NMFS sees value in efforts like these to promote continual improvement across our mission activities, including in all of our Council engagements and products. We are pleased to see that many of the report's recommendations align with actions we can take, and in many cases have already taken, to improve the groundfish stock assessment process.

NMFS provides this initial, high-level response to recommendation themes as an overview of actions we have recently taken or plan to take for the 2027 assessment cycle, as well as a starting point in our internal discussion and our engagement with the broader Council community. We look forward to engaging further with the Council community in ongoing improvements for future assessment cycles.

Transparency

NMFS is dedicated to continuing to increase the transparency of our scientific products. To this end, we developed "at-a-glance" summaries for all 2025 groundfish stock assessments, which were well-received by Council members and advisory bodies. We hosted an open meeting with the PFMC in September 2025 to provide high-level summaries and Q&A opportunities for each stock assessment conducted. Furthermore, as a result of feedback gathered during the PFMC review of the 2025 groundfish stock assessment cycle, we are collaborating with the Scientific and Statistical Committee (SSC) and Council staff to document the current stock assessment process and streamline the Terms of Reference for groundfish assessments.

Communication

Clear science communication is a priority. While NMFS provides standardized outputs characterizing scientific uncertainty in groundfish stock assessment reports, we recognize the need to communicate to the public how scientific uncertainty translates into management buffers. We look forward to the Council's Risk Management discussion in November to align perspectives on managing risk. Current efforts include monthly NWFSC-hosted data and stock

assessment calls that are open to anyone, recorded videos on the PFMC website, and experimental OFL-based decision tables that were trialed in September 2025.

We also acknowledge the challenge identified of translating technical STAR Panel and SSC discussions for the public. Reviewers and analysts need to retain their ability to use highly technical language during the review process to ensure the quality and rigor of stock assessments. Due to the workload that would be needed to translate these parts of the process to plain language, the Council may need to consider external support or contracts to bridge this gap effectively, if it is considered a priority.

Additionally, NMFS supports a clearer separation between scientific review and policy deliberation. Developing and implementing a strict technical referral protocol for the Council to request SSC re-reviews will improve efficiency and maintain the integrity of the science-policy boundary. Moreover, this would ensure assessments are treated equally in the Council process whether their impacts on catch limits are perceived positively or negatively.

Stakeholder Engagement

NMFS maintains a long-standing commitment to cooperative research and engagement. Data collected in cooperation with the fishing industry can iteratively improve stock assessments. For example, cooperative research efforts greatly improved the ability to estimate regional life history parameters for California quillback rockfish in 2025, improving the robustness of that assessment. This year, cooperative research to develop fishery-dependent CPUE indices through workshops with fishery participants will lead to a PFMC groundfish methodology review to determine how these data sources can be used in future assessments.

The existing groundfish stock assessment process includes multiple opportunities for engagement, in particular for benchmark stock assessments. Stock assessment prioritization occurs in even years, in a two-meeting process that reviews available data and information for potential species to be assessed. Initial data deadlines begin in December of even years, with a pre-assessment data meeting following early in odd-years, and the assessment development, review, and adoption process extending through November. The current process leads to a 3-year lag between the last year of survey data in a groundfish stock assessment and when its outcomes affect catch limits. While additional pre-assessment workshops could allow earlier engagement, adding to the existing process must be balanced with workload constraints, existing deadlines, and timeliness of providing science advice. Participation in existing pre-assessment data workshops was historically low, but has increased in the past few cycles. We suggest the Council analyze historical participation rates before concluding that more workshops are the primary solution. NMFS is open to exploring adding pre-assessment data meetings for update assessments, provided they offer an opportunity for meaningful input that can be incorporated within a streamlined process.

Assessment Process Cadence

We acknowledge that the current number of stocks to assess exceeds available analytical capacity. NMFS is developing new prioritization approaches and investigating a 10-year assessment calendar to improve the predictability of groundfish stock assessments, and facilitate more efficient workload planning and collaboration with data providers. A critical component of providing timely assessment advice for more stocks is the need for a "continuum of stock assessments," where we work with the Council to prioritize species and match the level of assessment complexity needed to each stock. By utilizing a wide variety of tools rather than default to the most data-intensive models for every species, we can right-size stock assessments and manage limited resources more responsibly while still providing robust scientific advice.

Feedback

NMFS values two-way feedback within the Council process. We are actively incorporating feedback into assessment communication through "at-a-glance" documents and information sessions, stock assessment prioritization, streamlining assessment methods, and right-sizing stock assessments. While tracking public engagement more systematically (e.g., via feedback trackers) in the Council process may require additional Council staff resources, we believe lessons can be learned from other regions to enhance the transparency of this aspect of our shared process.

Conclusion

We support the spirit of the report's recommendations and the overarching objectives to make the groundfish stock assessment process more accessible, improve engagement opportunities, etc. As noted above, through stakeholder feedback, internal evaluation and Council engagement, NMFS' approach to assessments continues to evolve to maintain state-of-the-art science and tools and processes that promote transparency, accessibility, and two-way communication. The actions we have already taken and anticipate continuing for the 2027 groundfish stock assessment cycle have served NMFS and the assessment process well. We are excited by new ideas and opportunities to continue to refine and improve the groundfish stock assessment process. However, we must be strategic. Given our critical role providing scientific advice and our capacity limitations, addressing more of the recommendations in the report requires a careful trade-off, necessitating we identify and scale back or stop other important work. NMFS is committed to continued engagement and will consider investing in addressing more recommendations for future assessment cycles based on cost-benefit analyses of the likely value of process improvement against staffing and resource capacity.