SUPPLEMENTAL REPORT: PLANNING FOR NEXT STEPS

If the Pacific Fishery Management Council (Council) adopts an interim Final Preferred Alternative (iFPA) stock definition for Pacific sardine at this meeting, next steps can begin to develop a Fishery Management Plan (FMP) amendment to revise the stock definition and manage the revised stock. As described in Section 4 of Attachment 1 and Supplemental National Marine Fisheries Service (NMFS) Report 1, these next steps may require a significant workload within the Council process and for the NMFS staff, Council staff, the Scientific and Statistical Committee (SSC), advisory bodies, and others who may be involved in generating and reviewing technical and management analyses. Development of an assessment, calculation of harvest parameters, and refinements of other management measures could have high technical workloads involving tradeoffs in terms of what work is prioritized. The Council may also be interested in longer-term research priorities for Pacific sardine, related to the revised stock definition, or other established science and management priorities (April 2025). Based on current projections, a benchmark stock assessment for a revised sardine stock could be completed by no later than February 2028 (NMFS Report 1). Additionally, science required to inform the 2027 – 2028 harvest specification process should be available in time for the typical Council process (NMFS Report 1). Therefore, next steps for the Pacific sardine stock in 2026 and into the future should consider how to manage the stock based on the best scientific information available. This document will propose next steps the Council may take to ensure this action and implementation of a revised stock definition follows their desired timeline outlined in response to Executive Order 14276.

As proposed in Attachment 1 and NMFS Report 1, immediate next steps, following the adoption of an iFPA, should include a review of management under a revised stock definition to examine the science and management considerations underlying the implementation, reviews, and revisions of the existing management measures, whether those considerations still apply and are consistent with the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and National Standard (NS) Guidelines. Council staff are proposing that NMFS and Council staff coordinate to complete this work and determine if aspects of sardine management could be re-affirmed or should be revised (as described in Sections 3 and 4 of Attachment 1). Based on this review, staff may put forward options for determining stock status (i.e. minimum stock size threshold, MSST, and overfishing limit, OFL), specifying appropriate control rules, and putting catch limits in place, under a revised stock. For instance, options could include application of current parameter values used for the northern subpopulation (NSP) stock if re-affirmed to be appropriate, proposed revision of these values, or development of alternative approaches, as needed. The general coastal pelagic species (CPS) harvest guideline (HG) control rule (described in Section 3.1 of Attachment 1 and in Section 4.6 of the CPS FMP), principles for defining status determination criteria like MSST and the OFL, and the foundational objectives of the CPS FMP may be useful in examining these reference points and control rules in the context of a revised stock. Additionally, for specific parameters that have historically been applied to sardine management for the NSP (i.e. E_{MSY}; see Attachment 1, Section 3.3), or development of new parameter alternatives, this process could potentially involve iterative technical analyses, modelling, and/or evaluation and the staff review may consider what is feasible to complete in time for the 2027-2028 harvest specifications process.

Following this review, meetings composed of the Coastal Pelagic Species Management Team (CPSMT), members of the Scientific and Statistical Committee (SSC), including the SSC's CPS subcommittee, and additional advisors from the Coastal Pelagic Species Advisory Subpanel (CPSAS) and the Southwest Fisheries Science Center (SWFSC) could be held to review the outputs of Council/NMFS staff work. Participants of these meetings, likely to be held over the summer of 2026, could review and provide recommendations on management options for the revised stock, including but not limited to, calculation of an OFL, MSST, and the HG control rule. For instance, the CPS subcommittee of the SSC could be particularly tasked with reviewing the options for generating the MSST and the OFL, while a joint CPSMT-CPSAS-SSC meeting could be tasked with applying the HG control rule formula to the revised stock with recommendations for appropriate parameter values. The Council has held similar meetings to work through management challenges in the past; for instance, reviewing the MSST (Agenda Item E.1.a, Supplemental SSC Report, September 2016) and holding joint meetings to discuss management of the central subpopulation of northern anchovy (i.e., Agenda Item G.2.a, Joint SSC/CPSMT Report, April 2017; Agenda Item D.4, Attachment 1, November 2019). More details on proposed meetings for Summer 2026 could be brought forward in June (see Agenda Item I.2, Attachment 2). The outcomes of these over-summer meetings, including recommendations on management options, could inform development and implementation of an FMP Amendment package to formally revise the sardine stock definition and management. Priorities for longer-term research could be an additional output. The SSC and the Council may consider these recommendations in the context of adopting a range of alternatives (ROA) and preliminary preferred alternative (PPA) for a holistic FMP amendment package in September 2026, and a final preferred alternative (FPA) for the amendment in November 2026, as scheduled. Under this framework, implementation of the final rule could be possible for the 2027 – 2028 fishing season, with 2027 – 2028 specifications potentially recommended by the Council in anticipation of a final rule.

The science that has supported CPS and sardine management has continued to evolve since the advent of the CPS FMP. New scientific developments will undoubtedly continue to shape the way the Council manages sardine following this action. While an FMP amendment to revise the stock definition will incorporate all foundational aspects of CPS management, including requirements of the MSA and NS guidelines, the Council should expect to continually incorporate new best scientific information available (BSIA), such as data, assessment models, and harvest guideline inputs, into the management of sardine, as it becomes available. Data availability for information on the revised stock may also continue to improve over time. NMFS and Council staff would be prepared to report back to the Council as progress is made, coordinating peer review and management evaluations as necessary. It is expected that the SSC will be involved in reviewing new methodologies, alternatives, and analyses as they are developed, providing the Council with recommendations for integration of BSIA into management. As described in Attachment 1, reviews of sardine management, including key inputs to status determination criteria and the HG control rule, as well as continual incorporation of new science into management, has been a part of the Council process for CPS for the last 28+ years. As Bahri et al (2021), describe, this is a natural part of the fisheries management process, to "...increasingly add to in complexity once the basics are in place, adding more fine-tuned ...management measures and control rules as practicable," (referenced in development of CPS management priorities, Agenda Item G.5, Attachment 1, April 2025). Fishery management rarely begins with the full suite of desired and sophisticated science and management products. Instead, management is done based on available information and that management improves over time as science and management sophistication is developed. As the

Council contemplates the potential for a coastwide sardine stock definition, it potentially finds itself in this place of transition—management should proceed with the best tools and information available. Over time, those tools and scientific products will continue to be improved, but that should not delay the implementation of appropriate management for a revised stock.

Lastly, at this meeting, the Council should discuss their desired prioritization of CPS workload, as it relates directly to their desired timeline for implementing management of a revised stock. The Council could consider adding a CPS Workload Planning and Stock Assessment Prioritization item to its June Agenda, as currently shaded on the Year-at-a-Glance Agenda (Agenda Item I.2, Attachment 1), in order to: (1) formally task the proposed joint workgroup described above that could make near-term management recommendations for a revised sardine stock, and to (2) prioritize near-term (2027) science and stock assessment needs for sardine and Pacific mackerel.

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Figure 1, below, outlines a potential timeline for the next steps described above to occur from 2026 through roughly 2028.

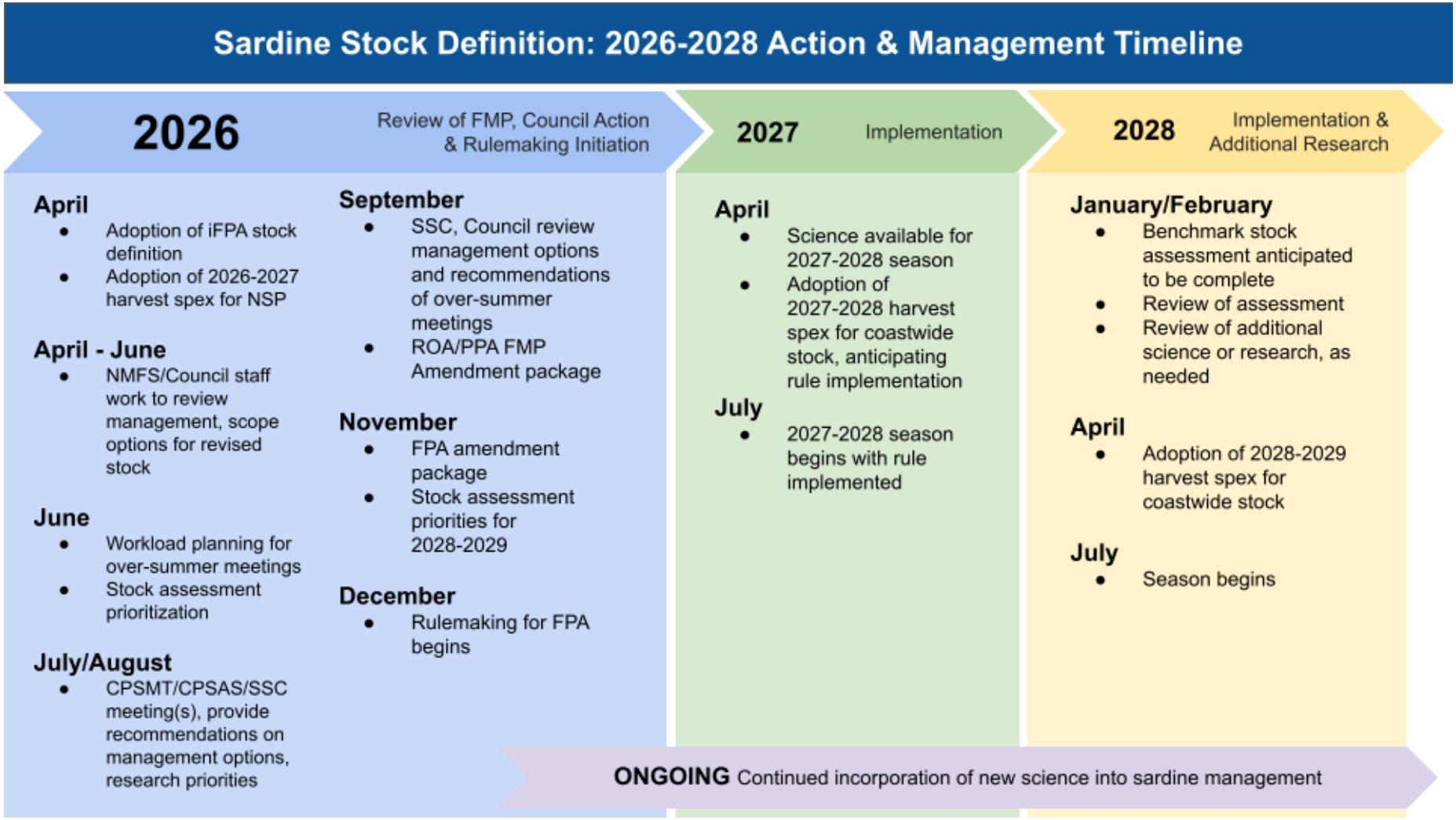


Figure 1. Proposed timeline for implementation of stock definition revision and management

REFERENCES

Bahri, T., Vasconcellos, M., Welch, D., Johnson, J., Perry, R. I., Ma, X., & Sharma, R. (2021). Adaptive management of fisheries in response to climate change. Rome, Italy: Food and Agriculture Organization of the United Nations. doi: https://doi.org/10.4060/cb3095en