



DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 660

[RTID 0648-XE531]

Fisheries Off West Coast States; Coastal Pelagic Species Fisheries; Amendment 23 to the Coastal Pelagic Species Fishery Management Plan

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notification of agency decision.

SUMMARY: On May 30, 2025, the Regional Administrator of the West Coast Region, NMFS, with the concurrence of the Assistant Administrator for Fisheries, approved Amendment 23 to the Coastal Pelagic Species (CPS) Fishery Management Plan (FMP). Amendment 23 implements a revised rebuilding plan for the northern subpopulation of Pacific sardine in response to a court order.

DATES: The amendment was approved on May 29, 2025.

ADDRESSES: Copies of the CPS FMP as amended through Amendment 23 are available at the Pacific Fishery Management Council, 7700 NE Ambassador Place, Suite 101, Portland, OR 97220-1384, or at this URL; <https://www.pcouncil.org/coastal-pelagic-species/fishery-management-plan-and-amendments/>. The final Environmental Assessment (EA) prepared pursuant to the National Environmental Policy Act (NEPA) for Amendment 23 is available on NMFS' website at <https://www.fisheries.noaa.gov/west-coast/laws-and-policies/west-coast-region-national-environmental-policy-act-documents>.

FOR FURTHER INFORMATION CONTACT: Katie Davis, Sustainable Fisheries Division, NMFS, at katie.davis@noaa.gov or (323) 372-2126; or Katrina Bernaus,

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SUPPLEMENTARY INFORMATION:

Background

Amendment 23 revises section 4.5 of the CPS FMP, the rebuilding plan for Pacific sardine, in response to an order from the U.S. District Court for the Northern District of California (*Oceana, Inc., v. Raimondo, et al.*, No. 5:21-cv-05407-VKD (N.D. Cal., filed July 14, 2021)). There are no implementing regulations associated with Amendment 23.

NMFS published a Notice of Availability (NOA) for Amendment 23 on March 12, 2025 (90 FR 11817), and solicited public comments through May 12, 2025. NMFS summarizes and responds to the public comments below in the **Comments and Responses** section. We considered all public comments received on the NOA and EA. Now, on behalf of the Secretary of Commerce, we are announcing the approval of Amendment 23. As discussed in greater detail in the NOA, Amendment 23 revises the Pacific sardine rebuilding plan in section 4.5 of the CPS FMP to update the T_{TARGET} (the specified time period for rebuilding the stock) to 17 years and to include annual catch limits (ACLs) for Pacific sardine as follows:

- *Overfished status* – If the age 1+ biomass is 50,000 metric tons (mt) or less in a given fishing year, the ACL for that year will be set at 2,200 mt or the calculated acceptable biological catch (ABC), whichever is less.
- *Rebuilding status* – If the age 1+ biomass is greater than 50,000 mt but less than 150,000 (rebuilding target) in a given fishing year, the ACL will be set at 5 percent of the age 1+ biomass for that year or the calculated ABC, whichever is less.

Comments and Responses

NMFS received two public comments supporting Amendment 23, one from a prominent fishing industry group, the California Wetfish Producers Association, and one from a private citizen. Additionally, NMFS received one comment from a private citizen stating support for the overall objective of the rebuilding plan but providing a variety of suggestions they think should be made to the plan or that NMFS could do in the future. Although some of those suggestions are outside the scope of this action, NMFS nevertheless provides responses to them for additional clarity. NMFS received two public comments opposing Amendment 23, one from the environmental non-governmental organization Oceana and one from an anonymous commenter who opposed commercial fishing of any kind.

Comment 1: Oceana claimed that Alternative 6 does not meet NMFS's legal obligations, and that to be compliant with the law, the ACL must be set at no greater than 5 percent of the estimated biomass for the year (or the calculated ABC, whichever is less). Oceana states that the revised rebuilding plan would increase the relative harvest rate as the stock declines below 44,000 mt. They argued that the modeling analysis indicates that the stock could rebuild within a reasonable timeframe under a fixed 2,200 mt ACL, assuming the stock began at 29,598 mt and grew each year (vs. declined), but that NMFS does not provide any analysis indicating that a 2,200 mt fixed ACL will rebuild the stock when biomass is below 29,598 mt. They further state that without an analysis incorporating the recent stock status or a new analysis of the rebuilding alternatives when the stock is below 2020 levels [29,598 mt], there is no clear evidence that Alternative 6 will rebuild the population. To account for this, Oceana recommends the rebuilding plan include additional restrictions on the fishery when the biomass falls below a specified threshold biomass level, such as 25,000 mt.

Response: When determining whether the revisions to this rebuilding plan comply with the Magnuson-Stevens Fishery Conservation and Management Act (MSA;

16 U.S.C. 1801 *et. seq.*) and other applicable law, NMFS took into account the impacts to the status and potential rebuilding timelines of the stock, as well as the environment and the fisheries (“Councils should consider the management objectives of their FMPs and their management framework to determine the relevant social, economic, and ecological factors used to determine optimum yield. There will be inherent trade-offs when determining the objectives of the fishery.” (50 CFR 600.310(e)(3)(iii)(B))). The modeling analysis conducted to support the development of Amendment 18 (the original rebuilding plan) reported a difference of one year between the rebuilding timelines of a 5 percent and fixed 2,200 mt annual harvest scenario. Considering the environmentally-linked population swings of sardines are on the order of decades, a one-year difference is negligible. The potential economic impact of further constraining the fisheries that catch sardines, however, could be significant. The rebuilding plan does not increase the harvest rate at low biomass levels, but instead implements ACLs that ensure the fisheries are harvesting at sustainable levels (allowing the stock to rebuild in the shortest amount of time while the fisheries maintain average harvest levels). In addition to the ACL implemented by Amendment 23, if the stock were to approach lower biomass levels (less than approximately 18,000 mt age 1+ biomass, based on recent harvest control rule parameters), the CPS FMP dictates that the ABC would supersede the ACL, resulting in further reductions in catch as the stock declines. Oceana also does not provide a scientific rationale explaining why the catch limit should be reduced below 5 percent at certain biomass levels when the modeling shows the stock can rebuild with a static 2,200 mt ACL.

In modeling rebuilding scenarios for a stock, it is standard practice to project the biomass using the current biomass as the starting point. The 2020 modeling analysis projected the estimated 2020 spawning stock biomass (SSB; 29,598 mt from the 2020 benchmark stock assessment) under different fishing rates and recruitment scenarios.

Uncertainty in the rebuilding analysis and therefore how the “model stock” would potentially rebuild was accounted for in a variety of ways. For example, the spawner-recruit relationship used a high σ_R (total recruitment variability) value, allowing for large fluctuations in recruitment in all rebuilding projections. For scenarios that rebuilt the stock, although the probability of rebuilding increased over time, the projected median spawning stock biomass did not always increase from each year to the next. Considering the 2024 benchmark assessment reported that the SSB has not, in any year since 2020, decreased below the amount analyzed in 2020 (for reference, the most recent estimate of SSB for 2024 was 36,190 mt)¹, NMFS has determined that additional modeling of the rebuilding alternatives below 2020 levels was not warranted and that the catch limits implemented by this revised rebuilding plan will prevent overfishing and support rebuilding of the stock under varied biomass levels.

Comment 2: Oceana claimed that the revised rebuilding plan does not address what they state are fundamental flaws with overfishing limit (OFL) and ABC. They state that Amendment 23 continues to rely on the California Cooperative Oceanic Fisheries Investigation (CalCOFI)-based E_{MSY} as a central parameter for calculating catch limits, that it violates the MSA’s requirements to base management measures on the best available science, prevent overfishing, and rebuild the population, and cite the April 22, 2024 court order that “the record reflects that use of the CalCOFI temperature index to calculate E_{MSY} consistently and materially overstates the productivity of the Pacific sardine.” They further reference concerns raised in recent years by the Council’s advisory bodies that the relationship between the CalCOFI index and productivity is flawed, and their support for re-evaluating the E_{MSY} parameter.

¹ Allen Akselrud CA, Jensen AJ, Kuriyama PT, Hill KT, Zwolinski JP. 2025. Update assessment of the Pacific sardine resource in 2025 for U.S. management in 2025-2026. U.S. Department of Commerce. NOAA Technical Memorandum NMFS-SWFSC-719. <https://doi.org/10.25923/z1xh-b932>

Response: E_{MSY} is a parameter in the OFL and ABC harvest control rules, which were part of the FMP before Amendment 18 was adopted. The CPS FMP does not mandate the use of a CalCOFI-based E_{MSY} to determine the OFL and/or ABC. Amendment 18 also did not mandate its use or specify any methodology for calculating E_{MSY} and neither does Amendment 23. The specific E_{MSY} value used in the OFL and ABC is based upon the annual recommendation of the Council's Scientific and Statistical Committee (SSC) to the Council in making recommendations for annual harvest specifications, and reviewed by NMFS during the annual rulemaking process. However, in light of the court ruling that NMFS failed to demonstrate that it relied on the best scientific information available when exclusively using the CalCOFI-based E_{MSY} to set the overfishing limit in the 2023–2024 harvest specifications, NMFS provides the following response.

Under the MSA, the SSC provides scientific advice for NMFS' consideration in fishery management decisions, including ABC and preventing overfishing. Per National Standard 2 at 50 CFR 600.315(a)(2), scientific information that is used to inform decision-making should include an evaluation of its uncertainty and management decisions should recognize the risks, such as those to overfishing, associated with the sources of uncertainty. As we explained in the final rule setting Pacific sardine harvest specifications for the 2024–2025 fishing year (89 FR 93522, November, 27, 2024), in recommending an OFL and ABC for that year that were calculated, in part, by using a CalCOFI-based E_{MSY} , the SSC appropriately accounted for any scientific uncertainty and gaps in scientific information that may have existed, including any surrounding E_{MSY} , in the information used to calculate the recommended reference points.

To help inform the SSC's recommendations during the 2025–2026 harvest specifications process, NMFS conducted a correlation analysis of the CalCOFI-based temperature with sardine productivity (recruits-per-spawner) for the years 1983–2023; an

update from the last analysis in 2013 that examined data from 1984 to 2008. In February 2025, NMFS presented the analysis to the SSC's CPS Subcommittee, which reported that "there is still valid statistical evidence for a relationship between CalCOFI [sea surface temperature] and recruits-per-spawner." At the April 2025 Council meeting, the full SSC reviewed the analysis and reported that the result "does not compel a change at this time." The SSC recommended the 2025–2026 OFL and ABC be calculated using the "status quo approach to E_{MSY} ," which utilizes the CalCOFI temperature index.

Comment 3: A private citizen commented that the documentation for this amendment lacks detail on how E_{MSY} , BUFFER, and the fixed DISTRIBUTION factor are derived in calculating the ABC.

Response: The referenced parameters are long-standing parameters of Pacific sardine management that are unchanged by this action. The commenter can find descriptions of these parameters in the CPS FMP, as well in section 1.4.2 of the EA for Amendment 23.

Comment 4: A private citizen commented that the rebuilding framework should include periodic stock reassessments—ideally on a biennial basis—to update recruitment estimates and refine the steepness parameter as new data become available. According to the commenter, this would ensure that the SB_0 estimate, and thus the rebuilding target, remains current.

Response: Per MSA section 304(e)(7) and National Standard guidelines at 50 CFR 600.310, the rebuilding plan process includes routine reviews of the applicable plan to ensure adequate progress is being made towards the rebuilding of the stock. Additionally, extensive analysis, some of which is mentioned by the commenter, went into the choice of an appropriate rebuilding target. This included examining different productivity periods, extent of data and a variety of uncertainties and NMFS has determined that choice represents the best available scientific information.

Comment 5: A private citizen stated that the ACL control rule should be modified to include an automatic precautionary adjustment mechanism, whereby ACLs are reduced if recruitment indices fall below a predefined benchmark that reflects the lower productivity regime.

Response: Although not exactly as described by the comment, under this rebuilding plan, ACLs are conditional upon certain tiered biomass levels, allowing the ACL to adjust based on the status of the stock. Under this approach, the ACL will be restricted to a low level (2,200 mt or the calculated ABC, whichever is less) when the biomass is at or below the 50,000 mt minimum stock size threshold and only allowed to increase when above that level. Additionally, because this framework is based on annual estimates of biomass (based on a measure of recruitment from fishery-independent survey data) and annual calculations of the ABC, NMFS believes the approach is responsive to changing conditions.

Comment 6: A private citizen stated that the final rule ought to explicitly acknowledge the limitations of the model.

Response: Understanding and acknowledging the limitations of the model were an extensive part of the development process of this rebuilding plan. For example, section 3.1 of the EA for Amendment 23 identifies certain model limitations. As explained in that document, due to these limitations, NMFS did not rely exclusively on the modeling analysis in the development of a rebuilding plan for Pacific sardine.

Comment 7: A private citizen commented that the Council should conduct supplementary sensitivity analyses incorporating variable fishing mortality regimes and environmental indices.

Response: The modeling analysis looked at a range of fishing mortality regimes by the U.S. fishery (zero harvest, 5 percent harvest, 2,200 mt fixed annual harvest, and 18

percent harvest) as well as scenarios for harvest by Mexico in order to compare the relative performance of the alternatives in relation to rebuilding timelines.

Comment 8: A private citizen stated that to ensure sustained recovery, NMFS should refine "rebuilt" to mean that the target biomass is not only met but maintained as an average over a minimum period (*e.g.*, three years, not necessarily consecutive). The commenter also asserted that NMFS should evaluate trade-offs between 14-year and 17-year rebuilding timeframes, and assess potential impacts on stock sustainability, yield variability, and socioeconomic factors.

Response: Refining "rebuilt" is outside of the scope of NMFS' authority under this action as the criteria for rebuilding an overfished stock are established by statute in the MSA and in the guidelines for National Standard 1 (Optimum Yield), which are found in regulation at 50 CFR 600.310. As defined by National Standard 1, the rebuilding target (B_{MSY}) of 150,000 mt is established as the long-term average size of the stock that would be achieved by fishing at maximum sustainable yield. Although not stated in the comment, NMFS assumes that the reason the commenter mentions an evaluation between a 14-year and 17-year rebuilding timeframe is that the T-target associated with the previous rebuilding plan (Amendment 18) was 14 years. Although that comparison was not explicitly conducted, it was concluded through the analysis in support of this revised rebuilding plan, as well as the previous rebuilding plan, that no management alternative was expected to significantly impact the ability of the Pacific sardine resource to rebuild in the near or long term, as fishing mortality is not the primary driver of stock biomass. Additionally, because of the ecological dynamics of the California Current Ecosystem, there would not be a measurable difference in ecosystem or forage benefits among the expected rebuilding timelines for Pacific sardine. Ultimately, with the closure of the primary directed commercial fishery and harvest limited to the ACL under this rebuilding

plan by the live bait, minor directed, and incidental fisheries, the environment will be the primary determinant for increasing stock abundance.

Comment 9: A private citizen stated that NMFS should integrate measurable environmental indices—such as seasonal sea surface temperature and upwelling indices—into ACL-setting decisions. The commenter suggested NMFS could develop and adopt an environmental monitoring program that tracks key indicators—such as seasonal sea surface temperature deviations, upwelling indices, and other relevant metrics—establishing flexible threshold values rather than fixed ones and explore linking ACL adjustments to these indices through periodic reviews rather than via fixed automatic triggers.

Response: Seasonal sea surface temperature is integrated into the calculation of the Pacific sardine OFL and ABC under the harvest control rules established in the CPS FMP, which are unchanged by this amendment. Since 2014, based on annual recommendations by the Council's SSC, the E_{MSY} for Pacific sardine has been based on a temperature-recruitment relationship utilizing a running 3-year average of the CalCOFI temperature index. CalCOFI is a long-term oceanographic and marine ecosystem monitoring and research program formed in 1949 to study the ecological aspects of the Pacific sardine collapse off California. It surveys the physical, biogeochemical, and biological dynamics of the marine environment.

Comment 10: A private citizen suggested that the final rule should evaluate ecosystem dynamics to ensure the rebuilding plan supports overall marine ecosystem health alongside direct stock recovery.

Response: Section 3 of the EA for Amendment 23 evaluates the impact on the target species (Pacific sardine) and the environment (marine predators) as well as potential cumulative impacts, as required under NEPA.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: May 29, 2025.

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