Agenda Item F.5
Staff Presentation
April 2026

FMP Amendment – Sardine Stock Definition and Fishery Management Unit Revision

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Background

- This action revisits the stock definition for Pacific Sardine in the CPS FMP
- **Stock** = species, subspecies, geographical grouping, or other category of fish capable of management as a unit → defined in fishery management unit
- Pacific sardine stock currently defined and managed as northern subpopulation (NSP), based on hypothesis of multiple subpopulations

Updates in the Science

- Newly available literature including genetic studies and review of historical literature show NSP and southern subpopulation (SSP) are part of one panmictic (genetically cohesive) population and there is no evidence for multiple subpopulations
- Management follows BSIA to date, but can be updated to reflect this new information
- Stock delineation should better align with understanding of population structure according to best practices and advice of the SSC

Purpose and Need

Adopted by the Council in November 2025

Due to newly published research on the population structure of Pacific sardine, this action aims to re-evaluate the Fishery Management Unit (FMU) for sardines in the CPS Fishery Management Plan (FMP). Specifically, the action will determine if the Pacific sardine stock in the FMU is defined consistent with current science.

This action is necessary to ensure Pacific sardine conservation and management is consistent with the goals and objectives of the Magnuson-Stevens Act, the National Standards, and the CPS FMP.

Alternatives

No Action - *The Council would not define stocks other than those currently defined in the CPS FMP (Section 1.2, Table 1-1). Only the northern subpopulation of Pacific sardine would continue to be defined as a stock in the FMU.*

Alternative 1 (PPA) - *The Council would amend the CPS FMP (Section 1.2, Table 1-1) to include all Pacific sardine in U.S. waters in the FMU. The FMU would include one stock of Pacific sardine, delineated coastwide.*

No Action	Alternative 1

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Scientific Information	Aligns with historical subpopulation hypothesis, but not recent updates to science	Aligns with recent science describing a single coastwide population

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Stock in need of conservation and management	NSP only	All Pacific sardine in U.S. waters

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Stock in need of conservation and management	NSP only	All Pacific sardine in U.S. waters
Catch Accounting	Current system where all catch accounted to NSP in-season, separated out for assessment	All catch accounted towards one coastwide stock

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Catch Accounting	Current system where all catch accounted to NSP in-season, separated out for assessment	All catch accounted towards one coastwide stock
Reference Points & Harvest Specifications	Set for NSP	Set for all sardine coastwide in U.S. waters

Council Action: Adopt an interim Final Preferred Alternative (iFPA)

- Once Council adopts iFPA, next step will be a review of key management provisions for Pacific sardine described in CPS FMP to determine if any reference points or other management criteria must be re-affirmed or revised
- Work will allow the Council to adopt a comprehensive amendment to the CPS FMP that implements a revised stock definition
- Review of management criteria --> **portions of the MSA and NS that may be relevant to revising the stock definition and overview of the current management of Pacific sardine in the CPS FMP**

Questions on the iFPA?

MSA, National Standards, CPS FMP

- MSA establishes required and discretionary provisions of FMPs (i.e., MSY, OY, EFH)
- Requirements include conservation and management measures and the specification of MSY and OY, guidance on which is expanded upon in the National Standards → how do these provisions apply to the revised stock?
  - NS 1: items to address preventing overfishing and achieving OY
    - MSY – maximum sustainable yield
    - SDC – status determination criteria (overfishing limit - OFL and minimum stock size threshold - MSST)
    - OY – optimum yield
    - ABC – acceptable biological catch control rule
    - ACL – mechanisms for specifying annual catch limits
    - AM – accountability measures

MSA, National Standards, CPS FMP

- Requirements include conservation and management measures and the specification of MSY and OY, guidance on which is expanded upon in the National Standards → how do these provisions apply to the revised stock?
  - NS 2: Scientific information → guiding review and decision-making
    - Conservation and management measures should be based upon BSIA
    - Evaluating BSIA
    - Guidelines for when data is insufficient
    - SSC advises Councils regarding BSIA
  - NS 3: guidance on defining a management unit
    - Reference points (NS1) specified in terms of level of stock aggregation for which BSIA is available
    - Managing a transboundary stock and its extent in U.S. waters

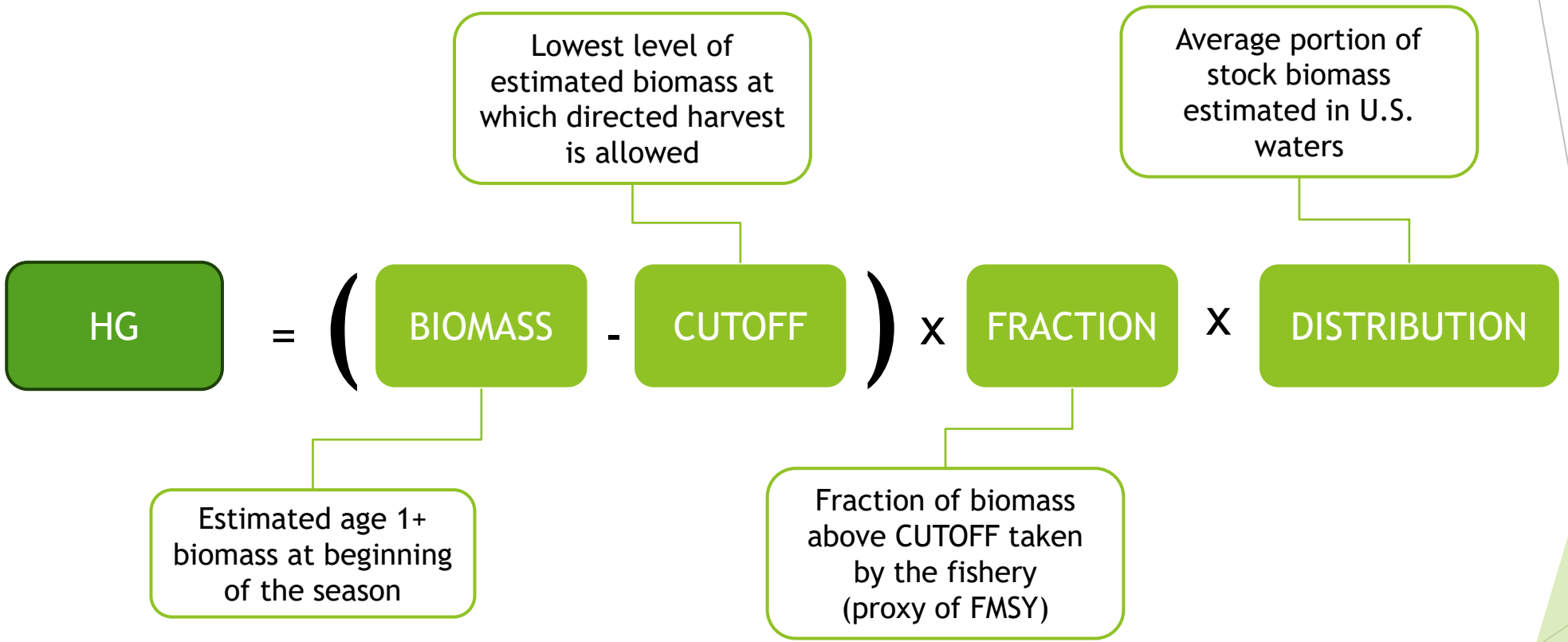
MSA, National Standards, CPS FMP

- Goals and objectives of the CPS FMP → how did these inform development of management criteria, how should they inform management of revised stock?
  - Promote efficiency and profitability in the fishery, including stability of catch.
  - Achieve OY.
  - Encourage cooperative international and interstate management of CPS.
  - Accommodate existing fishery segments.
  - Avoid discard.
  - Provide adequate forage for dependent species.
  - Prevent overfishing.
  - Acquire biological information and develop long-term research program.
  - Foster effective monitoring and enforcement.
  - Use resources spent on management of CPS efficiently.
  - Minimize gear conflicts.

Harvest Guideline (HG) – General CPS Harvest Control Rule (HCR)

- Intended to provide OY using fishing mortality control rule for directed fishery when stock is above CUTOFF value
- The purpose is to provide managers with a tool for setting and adjusting harvest levels on a periodic basis while preventing overfishing and overfished stock conditions

CPS HG Control Rule



Pacific Sardine Control Rules and Reference Points

OFL	BIOMASS * EMSY * DISTRIBUTION
ABC	BIOMASS * BUFFER * EMSY * DISTRIBUTION
ACL	LESS THAN OR EQUAL TO ABC
HG	(BIOMASS – CUTOFF) * FRACTION * DISTRIBUTION
ACT	EQUAL TO HG OR ACL, WHICHEVER VALUE IS LESS

- HG developed in Amendment 8 (creation of CPS FMP)
- Control rules revised in Amendment 13 to comply with MSA re-authorization and NS provisions
  - Development of OFL, ABC, ACL, ACT

Pacific Sardine Control Rules and Reference Points

OFL	BIOMASS * EMSY * DISTRIBUTION

- Determine stock status → defining overfishing
- Annual catch amount that corresponds to estimate of annual fishing mortality corresponding to MSY
- Based on MSY or MSY proxy harvest rates applied to the best estimate of available biomass

Pacific Sardine Control Rules and Reference Points

OFL	BIOMASS * EMSY * DISTRIBUTION
ABC	BIOMASS * BUFFER * EMSY * DISTRIBUTION
ACL	LESS THAN OR EQUAL TO ABC

- ABC is set below the OFL by application of the BUFFER, representing uncertainty
- ACL is the level of annual catch of a stock set to prevent overfishing from occurring
- ACLs can be set equal to or less than the ABC
- ACL for Pacific sardine (NSP) is currently determined by the revised rebuilding plan

Pacific Sardine Control Rules and Reference Points

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ACL	LESS THAN OR EQUAL TO ABC
HG	(BIOMASS – CUTOFF) * FRACTION * DISTRIBUTION
ACT	EQUAL TO HG OR ACL, WHICHEVER VALUE IS LESS

- HG cannot exceed ABC or ACL, ACT can be set in response
- CUTOFF added to the HG to help protect the stock when biomass is low
- HG cannot exceed MAXCAT, intended to protect from extremely high catch

Pacific Sardine Control Rules and Reference Points

Parameter inputs

- Goals and objectives of the FMP were factors in the development of specific parameters of the reference points and control rules
- Some were developed with Amendment 8
- Some have been developed over time with new science and guidelines
- Almost every parameter has been reviewed or analyzed in the last 25+ years – see Appendix of Attachment 1

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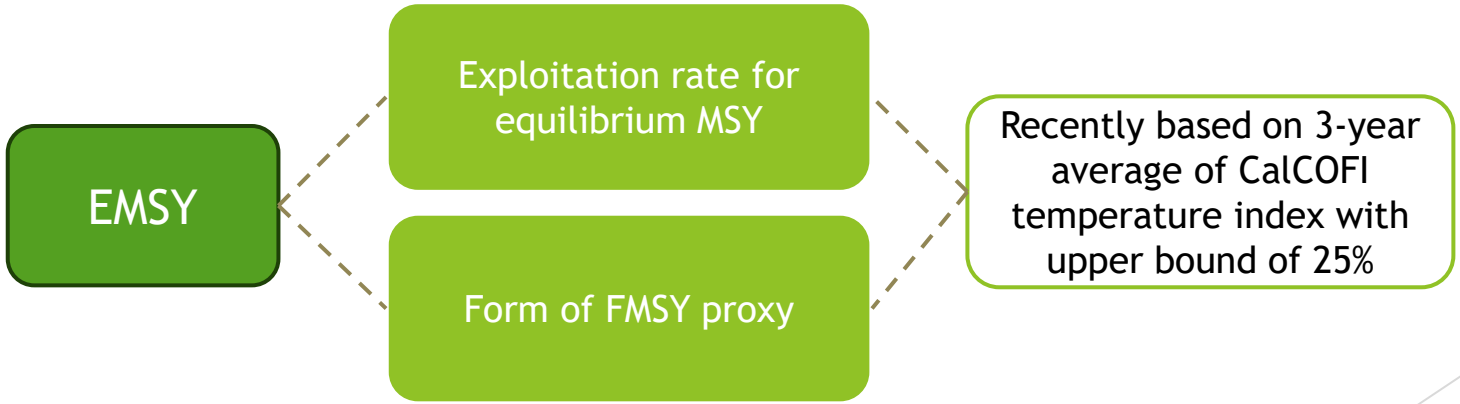
BIOMASS

Estimated age 1+ biomass at beginning of the season

Typically produced in a stock assessment and reviewed by the SSC

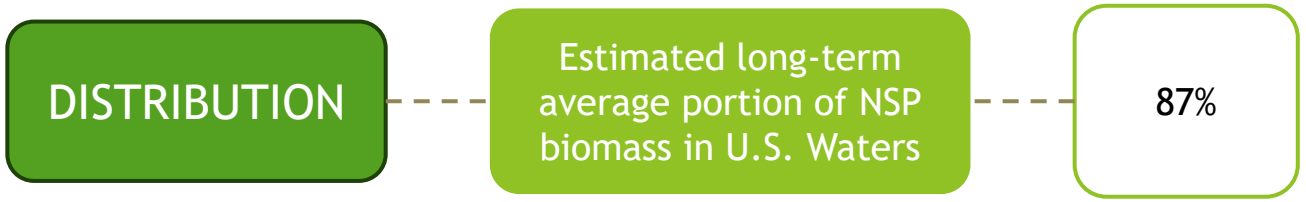
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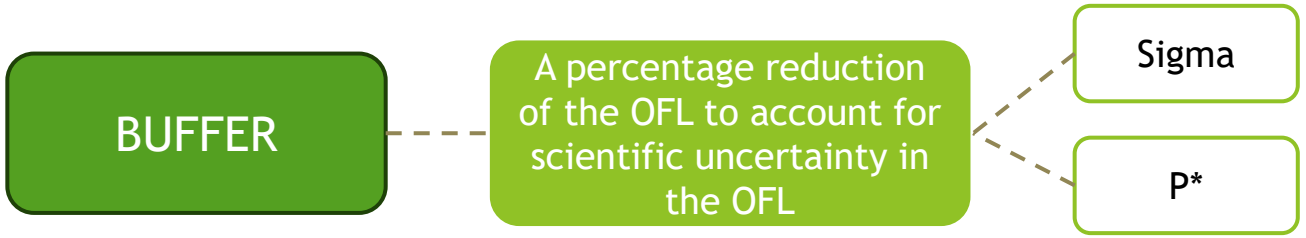
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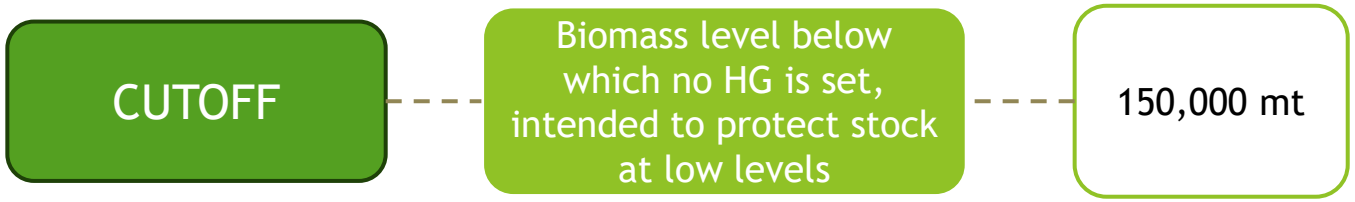
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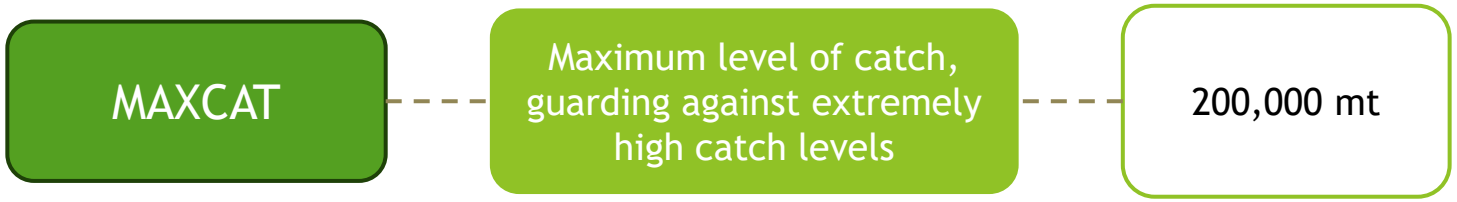
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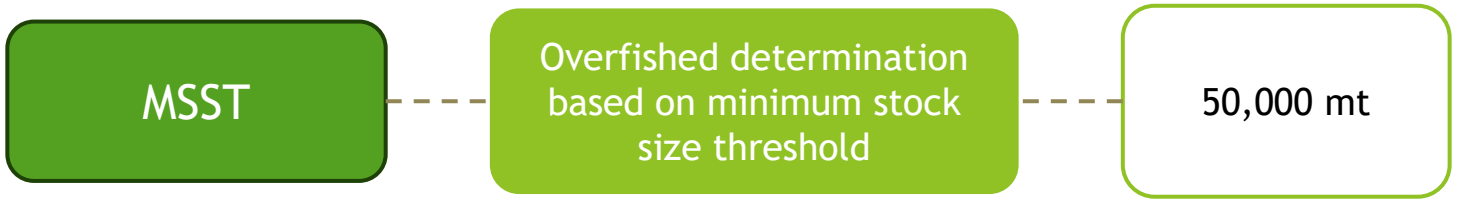
Pacific Sardine Control Rules and Reference Points

OFL	BIOMASS * EMSY * DISTRIBUTION
ABC	BIOMASS * BUFFER * EMSY * DISTRIBUTION
ACL	LESS THAN OR EQUAL TO ABC
HG *restricted by MAXCAT	(BIOMASS – CUTOFF) * FRACTION * DISTRIBUTION
ACT	EQUAL TO HG OR ACL, WHICHEVER VALUE IS LESS



Pacific Sardine Control Rules and Reference Points

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ABC	BIOMASS * BUFFER * EMSY * DISTRIBUTION
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Next Steps

If an iFPA is adopted…

- A review and evaluation of Pacific sardine management provisions to inform the Council on a full FMP amendment package
- Coordination by NMFS and Council Staff
- Involvement of CPSMT, CPS Subcommittee of SSC, and advisors (CPSAS, SWFSC)
- Consideration of workload priorities

Staff Proposal

- Council & NMFS Staff review FMP and management
- Council & NMFS Staff propose potential management options for review
- CPSMT/CPS Subcommittee/CPSAS meetings to provide recommendations on
  - Management provisions – status determination criteria (OFL, MSST) and application of HG control rule
  - Priorities for research
  - Inform FMP amendment package

Workload Prioritization

- Scheduled 2027 stock assessments
  - NSP benchmark
  - Pacific mackerel update
  - Consider whether any re-prioritization is necessary (considering 2027, 2028 priorities)
- Tasking over-summer meeting
  - Make management recommendations for a revised stock
  - Discuss research priorities
- Potential for June agenda item if needed – stock assessment prioritization and tasking “over-summer” work

Council Decision Points

April 2026

- iFPA stock definition
- Additional guidance

September 2026

- Review products of “over-summer” and SSC review
- Adopt an ROA/PPA for holistic amendment package, covering all requirements of MSA, NS Guidelines, and CPS FMP goals and objectives
- Additional guidance

November 2026

- Adopt an FPA amendment package, covering all requirements of MSA, NS Guidelines, and CPS FMP goals and objectives, as appropriate

Future

- Ongoing incorporation of new science and research into management

Sardine Stock Definition: 2026-2028 Action & Management Timeline

2026 — Review of FMP, Council Action & Rulemaking Initiation

April
- Adoption of iFPA stock definition
- Adoption of 2026-2027 harvest spex for NSP

April - June
- NMFS/Council staff work to review management, scope options for revised stock

June
- Workload planning for over-summer meetings
- Stock assessment prioritization

July/August
- CPSMT/CPSAS/SSC meeting(s), provide recommendations on management options, research priorities

September
- SSC, Council review management options and recommendations of over-summer meetings
- ROA/PPA FMP Amendment package

November
- FPA amendment package
- Stock assessment priorities for 2028-2029

December
- Rulemaking for FPA begins

2027 — Implementation

April
- Science available for 2027-2028 season
- Adoption of 2027-2028 harvest spex for coastwide stock, anticipating rule implementation

July
- 2027-2028 season begins with rule implemented

2028 — Implementation & Additional Research

January/February
- Benchmark stock assessment anticipated to be complete
- Review of assessment
- Review of additional science or research, as needed

April
- Adoption of 2028-2029 harvest spex for coastwide stock

July
- Season begins

ONGOING Continued incorporation of new science into sardine management

Council Action Today

Adopt Interim Final Preferred Alternative Sardine Stock Definition; Provide Guidance on Process to Revise the Fishery Management Unit

1. Adopt an interim Final Preferred Alternative (iFPA) sardine stock definition
2. Provide guidance on next steps outlined to develop an FMP amendment package for the iFPA stock definition
3. Provide guidance on workload priorities to support this action