Agenda Item J.3
Supplemental Attachment 4
November 2026

J.3 FMP Amendment: Revised Sardine Stock and Management Provisions - Final Action

November 2026

Council Action

Council Action: Adopt Final Preferred Alternative including Fishery Management Plan Language

1. Adopt a Final Preferred Alternative for the FMP Amendment including Options, as applicable
2. Adopt FMP Amendment language
3. Provide direction on next steps for Pacific sardine management, as appropriate



History of this Action

November 2025

ROA & PPA Stock Definition

- Prioritized in April
- Reviewed science on population dynamics
- Scoped action - P&N
- ROA, PPA to update stock definition based on new science

April 2026

Interim (i)FPA Stock Definition

- Went forward with scoping FMP Amendment for U.S. coastwide Pacific sardine stock
- Added to EO response

July 2026

Review of Management Provisions

- Management measures/reference points
- Council and NMFS staff review
- Joint advisory body meeting

September 2026

ROA & PPA for Management Provisions

- Apply FMP Management Framework
- Reference points and control rules

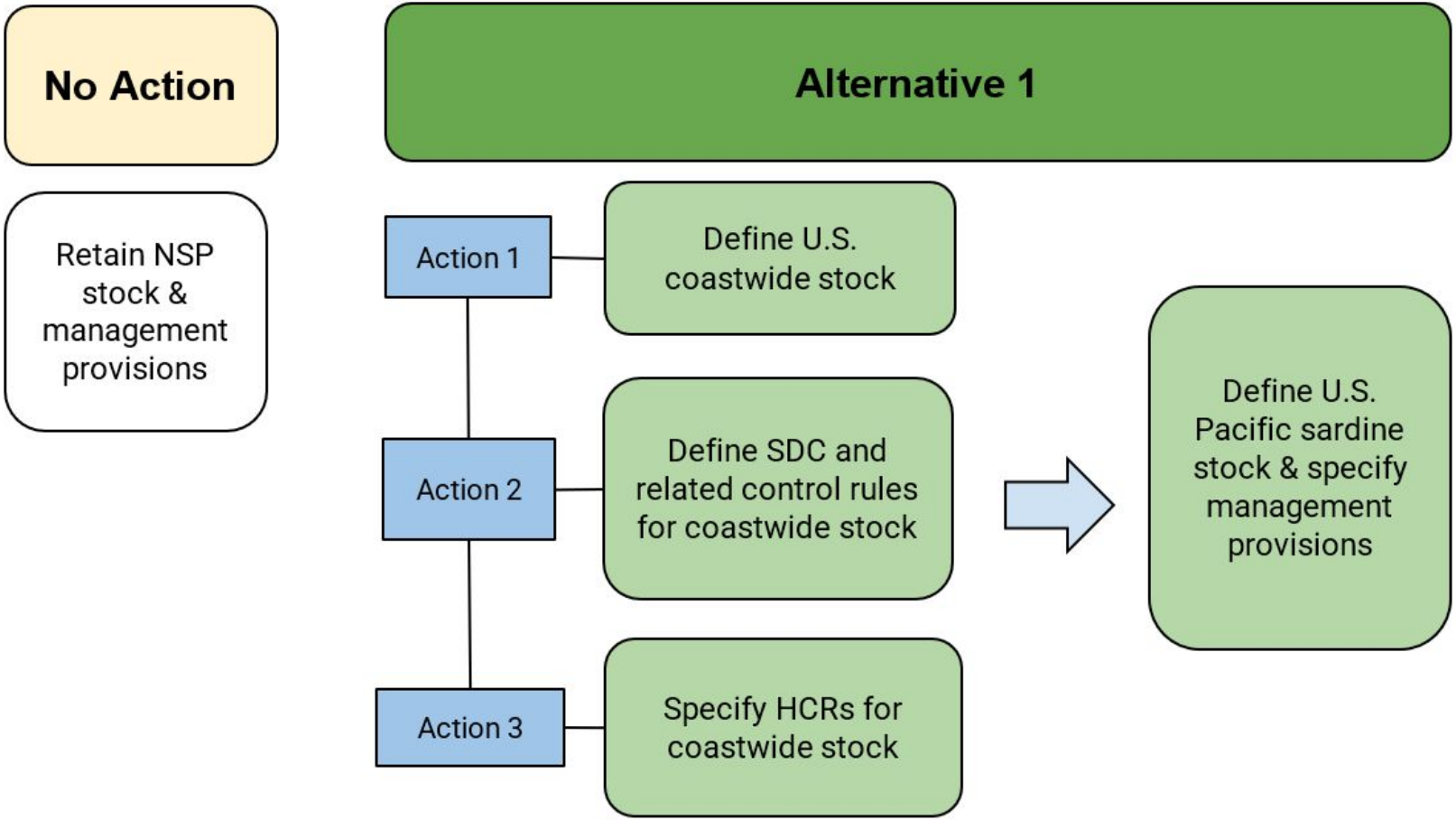
November 2026 - Adopt FPA and FMP text for the amendment

Range of Alternatives

No Action - Status Quo, NSP management

Alternative 1 - Define a U.S. Stock of Pacific Sardine and Specify Management Provisions in FMP **- PPA**




No Action
Retain NSP stock & management provisions
Alternative 1
Action 1
Define U.S. coastwide stock
Action 2
Define SDC and related control rules for coastwide stock
Action 3
Specify HCRs for coastwide stock
Define U.S. Pacific sardine stock & specify management provisions

Council Decisions

Decision points for FPA:

1. **Stock Definition** - Whether to revise the Pacific sardine stock definition to reflect updated science on population biology.
    - PPA identifies U.S. stock as in need of conservation and management, revises definition to reflect new science
2. **Management Provisions** - If the stock is revised, the current management framework for Pacific sardine may be applied
    - PPA applies current management framework, makes several adjustments

Council Decisions

Management Provisions - If the stock is revised, the current management framework for Pacific sardine may be applied

The Council considering several adjustments within that framework under Alternative 1 including:

a. Specification of a **minimum stock size threshold (MSST)** for the overfished status determination criteria (SDC)
b. Specification of a **CUTOFF** within the harvest guideline (HG) control rule
c. Set **DISTRIBUTION** to 1 in the overfishing limit (OFL), acceptable biological catch (ABC), and HG

No Action

Stock Definition:

- 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.

Management Provisions:

- No status determination criteria, HCRs, or related reference points and control rules would be adopted for the U.S. stock of Pacific sardine
- Only the NSP of Pacific sardine and its management provisions would continue to be defined.

Alternative 1 (PPA)

Stock Definition

- Amend the CPS FMP (Section 1.2, Table 1-1) to define a U.S. stock of Pacific sardine in the FMU, delineated coastwide

Information and Conclusions to Support PPA

Stock Definition

Information Considered

- BSIA on population dynamics to the extent possible within political and geographic bounds (NS2, NS3)
- Whether the stock is in need of conservation and management (10 Factors)



Conclusions So Far

- BSIA shows Pacific sardine comprise a single panmictic population without regional differences in demographics or other life history traits
- Pacific sardine in U.S. waters are in need of conservation and management

Considered But Not Analyzed Further

- Initial proposal included alt based on the hypothesis of two subpopulations (NSP, SSP) → two separate stocks would be defined in the FMP
- Council determined that there was not sufficient evidence to support the hypothesis of multiple subpopulations
- Council determined that management should align with the science finding Pacific sardine comprise a single population, not include multiple management units for a single biological unit

Alternative 1 (PPA)

Management Provisions

- Applies more intensive management framework in Section 4 of FMP
- Control rules/reference points applied to the U.S. Pacific sardine stock
  - OFL, ABC, HG, process to set ACLs/ACTs/management measures
  - Adjusts DISTRIBUTION to 1
- Status determination criteria (SDCs) specified for the U.S. Pacific sardine stock
  - Overfished SDC - minimum stock size threshold (MSST)
  - Overfishing SDC - OFL
- Council will continue to set annual harvest specifications to prevent overfishing and achieve OY.

Information and Conclusions to Support PPA

Management Provisions

Information to Consider

- Requirements of a stock in an FMP (MSA and NS)
- CPS FMP Framework



Conclusions So Far

- The “more intensive” management framework defined at Section 4.6.3 of the CPS FMP should be applied

Options Under Alternative 1 - CUTOFF

Alt 1 includes HG:
H = (BIOMASS – CUTOFF) * FRACTION * DISTRIBUTION
(not to exceed MAXCAT or ACL)

CUTOFF is a parameter in HG intended to meet certain CPS management objectives

- Ensure the stock is not overexploited in years with low stock biomass, preserve a stock and forage base
- Reduce exploitation rate as stock declines
- Close directed fishery when stock biomass drops below CUTOFF

CUTOFF OPTIONS
i. 50,000 mt
ii. 150,000 mt **- PPA**
iii. 314,400 mt

Options Under Alternative 1 - CUTOFF

- All options have been evaluated for NSP (prior to habitat model) via MSE
  - Performance metrics include average stock biomass, average catch, and number of years below CUTOFF (directed fishery closed)
  - 50,000 mt (Option i) has some benefit to the stock
  - 150,000 mt (Option ii) has greater benefit to the stock and industry
  - 314,400 mt (Option iii) has similar benefit to the stock as 150,000 mt, but potential negative impacts on industry
- All options meet CPS management objectives, expected to have a positive impact on affected resources

Options Under Alternative 1 - MSST

- Council must specify criteria for identifying when a stock is overfished, including SDC criteria
- Overfished status is usually determined when stock biomass is below the MSST
- Life history characteristics and stock's ability to increase back to MSY are important
- Numerous possibilities for specifying an MSST, the options within Alternative 1 are essentially a fixed-value MSST or depletion-based formulaic MSST
- SSC provides ongoing scientific advice and recommendations regarding SDCs

Options Under Alternative 1 - MSST

Option a - Static MSST value

a.i. 65,000 mt

a.ii. 150,000 mt

Option b - Depletion-Based Formulaic MSST and Proxy (PPA)

MSST = 10%B_0 – 30%B_0 (where X% is determined upon BSIA), or other reasonable proxy

Options Under Alternative 1 - MSST

Depletion-based formula or proxy (Option b, PPA)

- Recommended by the SSC for Pacific sardine
- MSST would be determined based on the best estimate of unfished biomass (typically produced within a stock assessment) and BSIA on the appropriate percentage considering life history and productivity, or a reasonable proxy based on BSIA and adopted by the SSC and Council
- % Range accommodates B20%, which was identified as appropriate for NSP in the 2016 NMFS SWFSC Report on the Review and Re-evaluation of MSSTs for finfish in CPS FMP.
- Employs concepts in the white paper on Examples of Flexible Status Determination Criteria from other Fishery Management Councils

Options Under Alternative 1 - MSST

- All options meet MSA requirements and support CPS management objectives by setting an overfished threshold
- All options expected to have a positive impact on the Pacific sardine resource, predators, industry by aligning the overfished threshold with the best available science on Pacific sardine population dynamics
- Formulaic/proxy option expected to have a greater positive impact based on flexibility to be updated with new science, stock dynamics
- Static options provide a transparent, unchanging biomass threshold for overfished determinations
- Between the static options, 65,000 mt (Option a.i) incorporates an understanding of the variability of stock dynamics while setting the MSST to 150,000 mt (Option a.ii) is highly conservative, but overestimates the expansion of stock biomass (relative to NSP), risks prematurely triggering formal overfished determination

What Changes for Sardine Management Under the PPA?

Stock Definition	Yes	Aligns with new science on population structure
Management Framework	No	Maintains CPS FMP's management framework, including OFL, ABC, HG formulas. Adjusts DISTRIBUTION
CUTOFF	No	Maintains 150,000 mt value shown to balance tradeoffs between stock biomass and industry impacts, closes directed fishery under 150,000 mt
Harvest Specifications	No	Council will continue to set OFLs, ABCs, ACLs, ACTs, and management measures during annual spex
MSST	Yes	Based on SSC recommendation, updates threshold to depletion-based formula or proxy, similar to other stocks

Impacts on Affected Resources *(Att. 2)*

Resource in the Affected Environment	Impacts from No Action	Impacts from Alternative 1
Sardine Resource	Not significant; Negative	Not significant; Positive
Pacific Sardine Industry	Not significant; Negative	Not significant; Positive
Predators in the Ecosystem	Not significant; Negative	Not significant; Positive

What is driving the expected impacts under PPA?

- Positive because
  - Aligns the foundation of management - the stock definition - with new science on population dynamics of Pacific sardine.
  - Increases the ability to prevent overfishing and achieve optimum yield by aligning management with science.
  - Reduces the risks and uncertainties associated with fishing pressure under a misaligned stock definition and assessment parameters.
- Not significant because
  - The basic management framework for Pacific sardine is maintained, continue to rely on existing precautions and “more intensive” management framework
  - Maintains annual assessment and management cycle designed to quickly respond to the dynamic nature of the managed stock

These Decision Points Add Up To…

Adopt a Final Preferred Alternative for FMP Amendment

Adopt No Action or Alternative 1

Adopt Options within Alternative 1, as needed

Adopt FMP Text, as needed *(Attachment 3)*



Next Steps

- Council may also provide direction on next steps for Pacific sardine management, after taking this foundational step
  - Previously requested MSE or similar analysis
  - Science and management priorities, analytical priorities (see J.2)
  - Any additional guidance



Council Action

Council Action: Adopt Final Preferred Alternative including Fishery Management Plan Language

1. Adopt a Final Preferred Alternative for the FMP Amendment including Options, as applicable
2. Adopt FMP Amendment language
3. Provide direction on next steps for Pacific sardine management, as appropriate

Management Provisions

Status Determination Criteria (SDC)	
Overfished SDC	Minimum stock size threshold (MSST)
Overfishing SDC	Overfishing limit (OFL)
Related Control Rules	Acceptable biological catch (ABC)

Harvest Control Rules
Harvest Guideline (HG)
HG Parameters