

ESA Mitigation Measures for Salmon Groundfish Agenda Item H.4

Pacific Fishery Management Council

The Riverside Hotel

Boise, ID

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Overview

- **Background**
 - Biological Opinion (BiOp)
 - Terms and Conditions (T&C)
- **Range of Alternatives**
 - Mitigation Tools to Manage Salmon Bycatch
 - Process to Access to the Reserve
- **Council Action**



Salmon Mitigation Background

- **Salmon Biological Opinion released 12/2017**
 - Six Reasonable and Prudent Measures
 - 19 T&Cs
- **Council specified T&Cs addressed through Range of Alternatives**
- **Main Points**
 - Set total Chinook and Coho bycatch amounts by sector
 - Required Reserve of 3,500 Chinook



20,000

RESERVE 3,500 Chinook	
Whiting Sector: 11,000 Chinook <ul style="list-style-type: none">• At-Sea• Shoreside• Tribal* Coho 474	Non-Whiting Sector: 5,500 Chinook <ul style="list-style-type: none">• Midwater Trawl• Bottom Trawl• Fixed Gear• Recreational² Coho 560

1. Those not accounted for in preseason⁴ modeling



Terms and Conditions

- **2b:** If the Council determines that additional mitigation measures are needed to allow for timely inseason management to keep the sectors from exceeding their bycatch guidelines, the Council will develop such measures and recommend them to NMFS within three years of issuance of this opinion...
- **3a:** The Council and NMFS shall develop and implement initial regulations governing the Reserve of 3,500 Chinook as part of the 2019-2020 biennial specifications and management measures. These regulations will be designed to ... allow for inseason action to prevent exceedance of a sector guideline plus the full amount of the Reserve and minimize the chance the Reserve is used in three out of any consecutive five years.



Range of Alternatives

1. **Block Area Closures (BAC) – Midwater Trawl.**
2. **Extension of BAC for all trawl gear to the western boundary of the Exclusive Economic Zone (EEZ)**
3. **Selective Flatfish Trawl Net (SFFT) Requirement**
4. **Pacific Whiting Cooperative Agreements**
5. **Create an Automatic Authority for NMFS to Close Trawl Sectors**
6. **Reserve Rule Access**



BAC Midwater trawl: No Action

BACs would not be developed for use as a mitigation tool in midwater trawl fisheries

- Only spatial closure available is 200fm Bycatch Reduction Area
 - Closes waters from shore to 200fm, Mexico to Canada
 - Available inseason and
 - Available to whiting sector and non-whiting midwater trawl
- Impacts
 - Salmon: no take in zone where salmon bycatch is highest
 - Economic: dependent on timing, duration, and sector(s)
 - impact could be high – majority of fishing effort is within 200fm

BAC Midwater Trawl: Alternative 1

Develop BACs as routine inseason mitigation tool for salmon bycatch in the whiting and non-whiting midwater trawl fisheries

- Based on depths/latitudes currently in regulation
- Implementation inseason
- Could be set by specific whiting sector and/or non-whiting midwater trawl
- Impacts
 - Salmon: Not subject to take in BAC
 - Economic: Dependent on timing, size & number of BAC(s), sector(s) affected



Extension of BACs for all Trawl Gear to EEZ: No Action

The Council could not extend any BAC boundary to the western edge of the EEZ for vessels using bottom or midwater trawl gear

- BACs limited to depth contours specified in regulation
- Area between BAC boundary and EEZ would remain open to fishing
- Impacts
 - Salmon between BAC boundary and EEZ could be subject to take
 - Industry: Midwater could fish from BAC boundary to EEZ
Bottom trawl could fish from BAC boundary to 700fm



Extension of BACs for all Trawl Gear to EEZ: Alternative 1

The Council would develop BACs to the western boundary of the EEZ for whiting/non-whiting midwater and bottom trawl

- Implemented inseason and by sector
- Could be used for vessels using bottom trawl and/or midwater trawl gear*
- Impacts
 - Salmon: Not available for take in BAC(s) extensions
 - Economic: Dependent on timing, size & number of BAC(s), sector(s) affected
- Note: BACs for bottom trawl not available in Washington



SFFT Requirement: No Action

SFFT nets would not be available as a mitigation tool to address salmon bycatch in the groundfish bottom trawl fishery except in areas already specified under regulation

- SFFT net use required in certain areas²
- Voluntary use in other areas
- Impacts
 - Salmon: Benefits for salmon would be limited to areas where SFFT net is required or by vessel using SFFT net voluntarily
 - Economic: Status quo



SFFT Requirement: Alternative 1

SFFT would be available for use as routine mitigation tool to address salmon bycatch in groundfish bottom trawl fisheries

- Could be used in conjunction with an area closure (e.g., BAC).
- May allow for fishing to continue in BACs
- Impacts
 - Salmon: SFFT net design may reduce incidental salmon bycatch
 - Industry: Net purchase and learning curve
 - Status quo impacts for vessels that own SFFT nets

Whiting Cooperatives Agreement: No Action

The Council does not recommend Pacific whiting cooperative operational rules as a mitigation measure for salmon bycatch.

- If necessary, Council and NMFS would need to select mitigation measures (e.g. BRA, BAC-*if approved*, etc.) to minimize bycatch
- Impacts
 - Salmon: Benefit linked to mitigation measure employed
 - Economic: Varies, highly dependent on mitigation measure used, timing, etc.



Co-op Agreements: Alternative 1 – Conforming Actions

Develop automatic actions that requires NMFS to close a specific area to the whiting fishery, or a specific whiting sector fishery, based on information provided to the RA, or designee, by the ED/manager of each whiting cooperative.

- Co-op would notify NMFS of an area closure for a specified duration and NMFS would conform to that action
- Multiple area configuration options are possible (e.g., discrete shapes developed based on haul level data to BAC type closures)
- Impacts
 - Salmon: Expected to be similar to existing measures by co-ops
 - Economic: Dependent on size, timing, location of closure



Co-op Agreements: Alternative 2 – Salmon Mitigation Plan (SMP)

Develop regulations to allow the whiting sector co-ops to develop salmon mitigation plans

- Each SMP would describe a framework of tools used to mitigate salmon bycatch elements to be determined cooperatively by the Council, NMFS, and industry
- Approval of the SMP by NMFS would be the “action” taken to allow access into the Reserve if needed
- Impacts
 - Salmon: Similar to existing mitigation measures used by co-ops
 - Economic: Industry incurs impacts to actively minimize salmon bycatch



Automatic authority to close trawl sectors

No Action

The Council will not develop an action to preserve 500 Chinook salmon for the fixed gear and recreational sectors. Instead, the only automatic authority in regulation would be the one that would close, one or both, the whiting and non-whiting sectors of the groundfish fishery upon that sector having exceeded its annual Chinook salmon bycatch guideline and the Reserve

- Whiting sector would close at 14,500 Chinook
- Non-whiting sector would close at 9,000 Chinook
- All fisheries would close at 20,000 Chinook
- Impact: Fixed gear/select recreational fisheries would close when non-whiting trawl closed



Automatic authority to close trawl sectors

Alternative 1

Develop an automatic action authority that would close the trawl sectors as follows:

- Whiting sector would close at 14,000 Chinook
- Non-whiting sector trawl would close at 8,500 Chinook
- All trawl fisheries would close at 19,500 Chinook
- Impact:
 - Preserves 500 Chinook for fixed gear and select recreational fisheries
 - Economic: Would allow fixed gear and select recreational fisheries to remain open if non-whiting trawl fisheries reach guideline and Reserve



Development of Reserve Rule Provision: No Action

The Council would not develop a process for sectors to access the Reserve of 3,500 Chinook

- RPM 3, T&C 3a requires the Council to develop a process for sectors to access the Reserve
- No Action would be out of compliance with the BiOp
- ESA consultation could be reinitiated



Development of Reserve Rule Provision Alternative 1

A sector could only access the Reserve if the Council or NMFS has taken action to minimize Chinook salmon bycatch in that sector prior to reaching its Chinook salmon bycatch guideline.

- Would satisfy requirements of the BiOp
- Impacts
 - Salmon could benefit from mitigation measure(s) employed
 - Impacts to industry would be relative to mitigation measure used



Considered but not analyzed further

- 1) Salmon excluder nets
- 2) Develop automatic action authority for BACs for midwater trawl
- 3) Trigger points for mitigation measures
- 4) Additional BRA boundaries



Council Action

Adopt Preliminary Preferred Alternatives for Mitigation Measures for Salmon Interactions in Groundfish Fisheries Pursuant to the 2017 NMFS Biological Opinion.



Questions

