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NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

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E2 Climate Work Plan

June 2026

Action Memo

Council Staff: Dr. Diana Stram
Other Presenters: Dr. Kirstin Holsman (AFSC)
Action Required: a) Work Plan Update,
b) Discussion Paper on Development of Alternative Harvest Control Rules (HCRs) – Review and provide recommendations on next steps, -specific SSC feedback requests listed below
c) Ecosystem Committee Report

BACKGROUND

In [December 2024](#), the Council established a climate resilience work plan to guide near-term actions for enhanced climate resilient federal fisheries management in the GOA and the BSAI. The work plan focuses on 1) expanding the Council’s existing processes, collaborations, and partnerships that facilitate inclusion of multiple knowledge systems in climate planning, and 2) considering management tools and options focused on the inclusion of existing and emergent climate information.

Work Plan Update

The draft Climate Resilience Work Plan for the BSAI and GOA fisheries reframes the Council’s 4 elements (A-D below) from the Council’s December 2024 motion into a tracking spreadsheet (Section 2 of the document) including progress through 2025-2026.

The Council identified several near-term actions including the following elements:

- A. Incorporate climate-forecast-linked management advice;
- B. Incorporate climate-driven interactions and cascading impacts through the use of ecosystem indicators and models;
- C. Consider and incorporate dynamic management tools to increase in-season adaptation capacity; and
- D. Review tier systems, consider climate-informed biomass targets and limits, and climate-robust or forecast-informed harvest control rules.

Additional details on each of the listed items in the spreadsheet are included in Section 3 of the document. This summary represents staff’s efforts to capture Council, Regional Office and AFSC activities that are related to these elements and is not exhaustive of all potential activities that may fall under these elements. It is anticipated that this tracking spreadsheet will be a living, working document updated by Council and AFSC staff twice a year with a report to the Council in staff tasking at the December and June Council meetings. Should the Council have feedback (e.g., on the organization of the spreadsheet,

level of detail and periodicity of review, etc) staff will revise accordingly prior to the next review. The Council may also add additional elements to the work plan at any time.

Discussion Paper on Development of Alternative Harvest Control Rules (HCRs)

This discussion paper focuses on Element D of the climate resilience work plan: *Consider climate-informed biomass targets and limits and climate-robust forecast-informed harvest control rules (HCRs) for specifying Acceptable Biological Catch (ABC) limits*. While this is related to other elements of the work plan such as (A) ‘*Incorporating climate forecast linked management advice*’ and (B) ‘*Incorporate climate-driven interactions and cascading impacts through use of ecosystem indicators and models*’ this paper is focused solely on the current harvest specifications process and HCRs and the consideration of alternative HCRs as a means to advance climate resiliency

The paper contains the following information on the current NPFMC treatment of risk and uncertainty in establishing harvest specifications for BSAI and GOA Groundfish and BSAI Crab stocks as well as rationale and progress to date for moving towards more climate resilient HCRs.

- Detailed description of the purpose and structure of HCRs in general and more specifically the current HCRs employed for groundfish and crab stocks (Section 2).
- Details on where different components of risk and uncertainty are considered in stock assessments, ABC setting and TAC setting to better understand what benefits could be conveyed by considering modified HCRs (within the current harvest specifications process) at this time (Section 3).
- Modifications which can be made within the current HCRs or through FMP amendments to adopt modified HCRs (Section 3.4)
- Modified HCRs under development to enhance climate resilience under environmental changes¹ and determining goals and objectives for these modifications (Section 4.2 and 4.3).
- Council decision points (Section 4.5)

A series of appendices are included which provide additional technical details on HCRs under development and contextual information for moving forward with analyses of HCRs and climate informed management advice.

Council decision points

The Council has already expressed their interest in considering alternative HCRs to enhance climate resilience under changing environmental conditions. If the Council chooses to move forward with this analysis, **the Council should identify goals and objectives** to be achieved through the action and may develop a purpose and need statement to include these goals and objectives, and a draft suite of alternatives for analysis. Section 4.3 provides some draft high-level goals and tailored example objectives that may assist the Council in selecting these for the analysis.

The Council may also **provide direction to the analytical team on an appropriate communication and engagement strategy for this analysis** outside of the normal Council analytical review process to best inform and involve all stakeholders throughout the project.

¹ Given previous direction by the Council, modifications are not envisioned to the OFL HCRs thus an explanation of how they are set is included but proposed modifications to HCRs are restricted solely to ABC and the overall treatment of risk and Process to uncertainty in the harvest specifications process.

Ecosystem Committee

The Ecosystem Committee reviewed this paper at their meeting on May 8th, 2026. A report from that meeting is posted to this agenda item and a summary will be provided by staff.

SSC Review of the discussion paper

In addition to review of the overall paper, specific SSC feedback is sought on two different aspects of the analysis moving forward:

- 1- Process of developing performance metrics, and
- 2- Potential scalability of analysis

Process to develop performance metrics

A discussion of performance metrics and the importance of the selection of key measures to assess the tradeoffs of various HCRs in the analysis is included in Section 4.3 and Appendix 3 of the paper. Candidate performance metrics would need to be aligned with the specific objectives for this analysis (objectives to be recommended by the Council at this meeting using the draft objectives in the paper as a starting point). Future simulation work will indicate to what extent candidate HCRs address specific metrics associated with those objectives. Some decisions could be discussed (using draft objectives included in the paper) regarding time frames for evaluation of different types of metrics (biological, economic, community) as well as how to use simulation results of performance under status quo and HCRs to help define triggers for moving to an alternative HCR.

Scope of analysis and next steps

Given uncertainty of current resources (budgetary and staff availability), it may be advisable to consider possible scales of this analysis. Some considerations of scale could include the following for near-term milestones for this project:

- Region:
 - Focus on simulations in the Bering Sea (already in process)
- Tier
 - Focus on Tier 3 for modifications to HCRs
- Stocks:
 - Candidate stocks and stock groupings are identified in the discussion paper. Consider focusing on a subset of stocks representative of a range of environmental responses (e.g., stock with known linkages to environmental covariates, stock with vulnerability to environmental shocks).
- Performance metrics and triggers for moving to an alternative HCR
 - Develop performance metrics with stakeholder engagement and use simulations to help define explicit triggers for moving to an alternative HCR from the Tier 3 HCR.