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# Progress report on Developing Alternative Harvest Control Rule

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February 2026 SSC



## Outline of presentation

- Clarifying terminology and timelines: Council Climate work plan and HCR discussion paper
- Overview of proposed June discussion paper outline and progress to date
- Joint Groundfish Plan Team recommendations (incorporated within discussion paper outline presentation)
- Crab Plan Team report



## Climate Work Plan process: clarification

### Climate work plan:

Adopted by the Council in December 2024. Four initial elements [2024 [Council motion](#)] initial work focussing on element 4 of work plan regarding consideration of HCRs but that work is also related to the other 3 elements. Intended to be a living work plan that may be augmented by the Council moving forward. Formatted version of work plan elements and progress to date to be presented in June in conjunction with on-going CEFI work and related overlap

### HCR Discussion paper:

Scope of discussion paper subject of Plan Team reviews and SSC discussion in February. Full discussion paper focussed on HCRs and related assessment work to be provided in June 2026. Intended to assist the Council in initiating an analysis of HCR or other aspects in June

**Both to be addressed at June 2026 Council meeting**



# Climate Workplan (Council)

## R&D, simulations (AFSC +)

1 Incorporate climate forecast linked management advice

Delivery of environmental forecasts indices annually (CEFI), environmental -linked stock assessments (NEAP, SSMA, AFSC), ESRs, etc.

2 Incorporate climate-driven interactions and cascading impacts through use of ecosystem indicators and models

Ecosystem surveys, data, monitoring, indicators & modeling (to evaluate cascading impacts). Via ESRs, ESPs and simulations.

3 Consider and incorporate dynamic management tools to increase in-season adaptation capacity

Simulation testing (or MSEs) of alternative management options; in-season management advice via indicators or thresholds & monitoring or model near-realtime nowcasts

4 Review tier systems, consider climate-informed biomass targets and limits and climate-robust or forecast-informed harvest control rules

MSE and simulation testing (e.g., through ACLIM, GOA-CLIM and CEFI +); advice and environmental indices delivered systemically to Plan Teams/ SSC/ Council

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# Dynamic Council

ing, indicators impacts). Via

- 3 Consider management adaptation

# Work Plan

alternative management & monitoring

- 4 Review tier systems, consider climate-informed biomass targets and limits and climate-robust or forecast-informed harvest control rules

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# Draft June Discussion Paper Outline

1. **Status and goal(s) of this effort**
2. **Priority species and stocks:**
3. **Performance and evaluation options:**
4. **Alternative options for scientific advice:**
5. **Management decision options and timing:**
6. **Review options for ongoing communication and engagement:**
7. **Duration, timeline and milestones.**



Specific feedback from the SSC is sought on any revisions or additions to this list

## Status and goal(s) of this effort

*Potential refinements being considered to current biological reference points and HCRs to provide additional adaptability to changing climate. I.e., Are there novel problems arising and if so what are the solutions (ABC / OFL specifications)?*

### **Progress to date:**

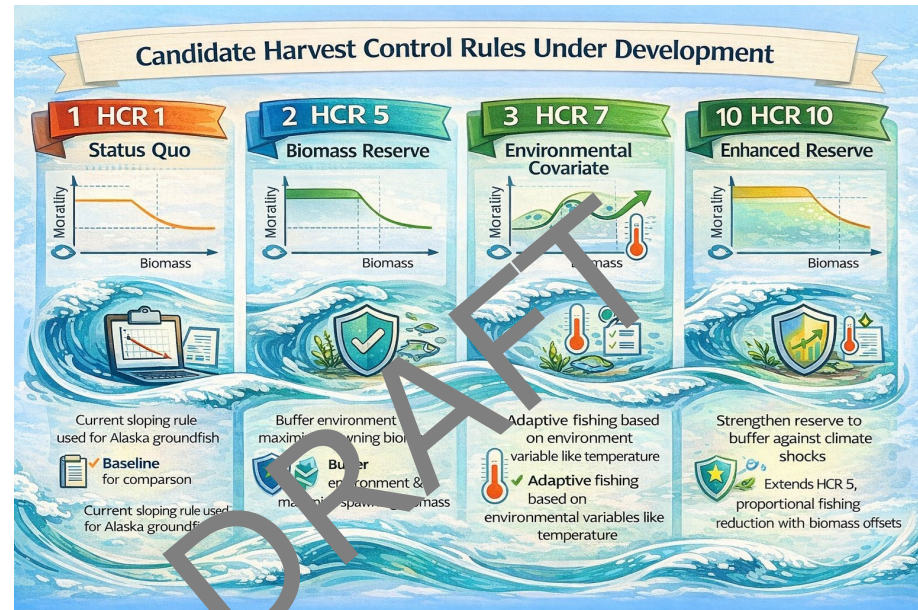
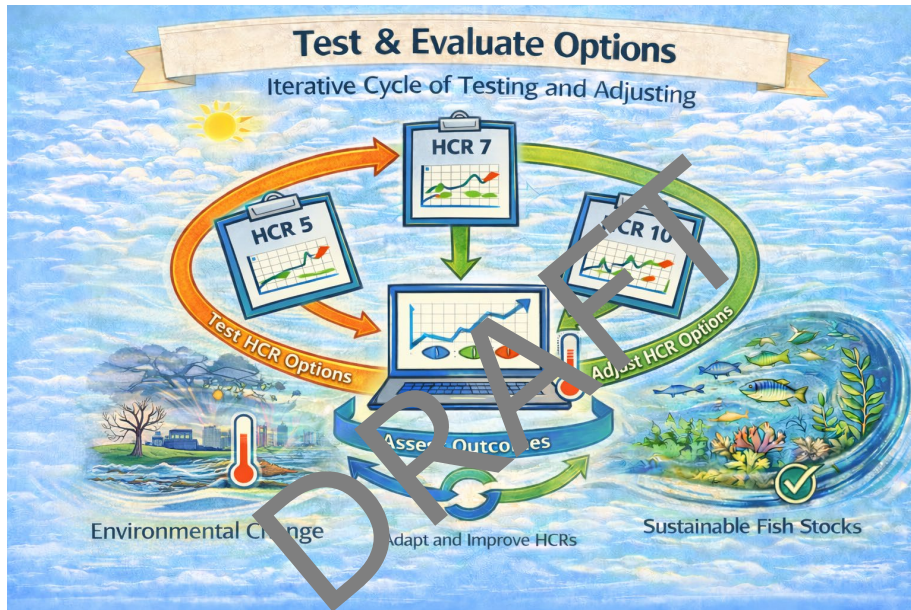
Multiple overview and discussion papers.

Council staff to draft this overview section to assist with drafting a purpose and need and objectives for this action in June.

On-going work on infographics to assist in broadening understanding of this effort (some examples shown)



# DRAFT infographics under development





## Priority species and stocks

*Species or groups of species of particular interest*

### **Status to date:**

SSC identified list of species (BSAI/GOA Pacific cod, pollock, AK Sablefish, snow crab), September Joint Groundfish Plan Team added POP to this list. CPT suggested additional crab stocks of interest.

January JPT recommendations on stocks and stock groupings



## Performance and evaluation options

*Priority (and overarching) performance metrics (both under development as well as a potential process to develop social indicators)*

**Status to date:** under development. ACLIM paper (Hollowed et al, 2024). Spreadsheet posted to JGFPT meeting from January. HCR group will continue to refine and provide draft performance metrics in June and refine further once Council has articulated goals and objectives for the action.

Intent to provide a draft plan for developing social indicators for consideration in June.



## Alternative options for scientific advice

*Review current and potential options for next generation stock assessment models, environmental forecasts, risk assessment methods and alternative HCRs.*

### **Status to date:**

AFSC Staff will summarize status in June paper; revised HCR paper provides focus of alternative HCRs to date, will be incorporated into June paper



## Management decision options and timing

*Discuss examples and alternative policy options (summarize options from within and outside of Alaska).*

### **Status to date:**

Discussed at JGFPT meeting. Some work done in conjunction with June 2025 HCR SSC workshop, staff to continue to compile additional examples and national level initiatives for June 2026 paper



# **Joint Plan Team HCR Discussion summary**

- Governance and Workplan Scope
- Prioritization of HCR Designs
- Interaction with Assessment Models
- Implementation Triggers
- Performance Criteria and Evaluation



## Governance and Workplan Scope

The Teams recommended that the Workplan include guidance for evaluating **FABC**, **HCRs**, and **TAC** (including alternative ecosystem caps) both independently and jointly. These evaluations are intended to inform when and how to apply climate-resilience strategies, whether within assessment models, HCRs, or the TAC-setting process.

Specific governance recommendations included:

- **Procedural Steps:** The Workplan should outline the scientific steps required to prepare an alternative HCR for consideration and define the criteria for accepting an alternative HCR
- **Scope:** The Teams supported exploring alternative HCRs for setting **ABCs**, but **not for OFLs** at this time.
- **Scientific Updates:** There should be a process for periodic updates on relevant research activities (e.g., ACLIM, GOACLIM, CEFI) to refine management advice

**Collaboration:** The Workplan sub-group should draw from national-level working groups regarding climate-informed HCRs



## Prioritization of HCR Designs

The Teams recommended prioritizing **HCR 7** and **HCR 10** (from the SSC set of four) as the primary alternatives to the status quo (HCR 1) for evaluation. They noted that all alternative HCRs reduce to the status quo when specific scaling parameters (omegas) equal zero.

Regarding modifications and specific design features, the Teams recommended:

- **Modifications:** Exploring a "10–7 hybrid" (adding an omega term on FABC to HCR 10), increasing FABC for species exerting high predation pressure, and applying fixed catch or declining F below  $B_{40}$  for depleted stocks.
- **Other Approaches:** Exploring alternative HCRs used by other councils, such as the PFMC and NEFMC.
- **Transitions:** Developing HCRs that allow smoothed transitions at biological reference points and provide options for stocks remaining below  $B_{target}$  for extended periods.
- **Optional Features:** Alternatives such as "stair step" or "maximum delta" in ABC were recommended as optional considerations.



# Interaction with Assessment Models

The Teams emphasized the relationship between HCRs and stock assessment models, recommending that:

- **Avoid Double use:** Environmental indices should **not** be used in both the assessment model and the HCR; alternative HCRs should only address factors (e.g., ecosystem considerations) that are not already captured by the base assessment model to avoid duplicated adjustments,.
- **Productivity Review:** As an initial step, the Teams suggested reviewing whether time-varying productivity exists for Alaska stocks using code developed by Marshall et al. (2025).





# Implementation Triggers

The Teams recommended that triggers for considering alternative HCRs be grounded in elements of the existing **Risk Table framework**.

Key recommendations regarding triggers included:

- **Specificity:** Implementation of alternative HCRs must be **stock- or species-specific** on a case-by-case basis. However, the design and evaluation could be grouped by stock types or clusters.
- **Objective Setting:** For identified stock groups, the Workplan should draft **overarching objectives** (e.g., ecosystem, catch, biomass) that address the unique problems presented by that group.
- **Testing:** In addition to testing the HCRs, the set of triggers itself should be simulation tested.



# Performance Criteria and Evaluation

The Teams recommended using **simulation testing** (and/or counterfactual retrospective analyses) to evaluate all alternative HCRs against agreed-upon performance criteria.

Specific evaluation recommendations included:

- **Criteria Compilation:** Compiling a comprehensive set of performance criteria linked to objectives and prioritizing them.
- **Classification:** Classifying performance metrics by whether they are intended to evaluate simulation performance or implementation performance.
- **Robustness:** Testing under different assumptions about forecast skill and whether observed changes in biological parameters reflect true ecological change or observation error.
- **Multispecies Considerations:** Conducting multispecies Management Strategy Evaluations (MSEs) to test alternative HCRs across different species to identify potential inadvertent consequences.



# WORKSHOP ON ALTERNATIVE HARVEST CONTROL RULES (HCR)

Following the January 2026 Groundfish Plan Team meeting, this framework establishes a workplan for evolving beyond status-quo harvest strategies, integrating climate-resilience into management advice while maintaining rigorous scientific governance and simulation-based testing.

## GOVERNANCE AND STRATEGIC DESIGN



### PRIORITIZE HCR 7 AND HCR 10

These models are designated as the primary scientific alternatives to the status quo (HCR 1).

HCR Designation	Description
HCR 1	Current Status Quo
HCR 7	Primary alternative incorporating omega scaling parameters
HCR 10	Primary alternative focused on age class diversity



### PREVENT ENVIRONMENTAL "DOUBLE-COUNTING"

Environmental indices must not be used in both the assessment model and the HCR.



### MANDATORY SIMULATION TESTING

Alternative HCRs must be evaluated against performance criteria under varied forecast skill assumptions.

## IMPLEMENTATION TRIGGERS



### PROLONGED BIOMASS DEFICITS

Triggers include stocks with spawning biomass below target levels for multiple successive years.



### ECOLOGICAL AND RECRUITMENT ALARMS

Persistent recruitment declines or "increased concern" risk table ratings serve as implementation triggers.

### CASE-BY-CASE STOCK APPLICATION



Implementation must be stock-specific rather than generic to account for unique life-history types.

## Review options for ongoing communication and engagement

*Review alternative plans for regular feedback and communication regarding the progress of analysis (if initiated by the Council in June) via Plan Team, SSC, Advisory Panel, Council, public, etc.*

### **Status to date:**

Identified as a need by Plan Team, SSC guidance would be helpful (now or in June); staff could draft a proposed plan for June Paper



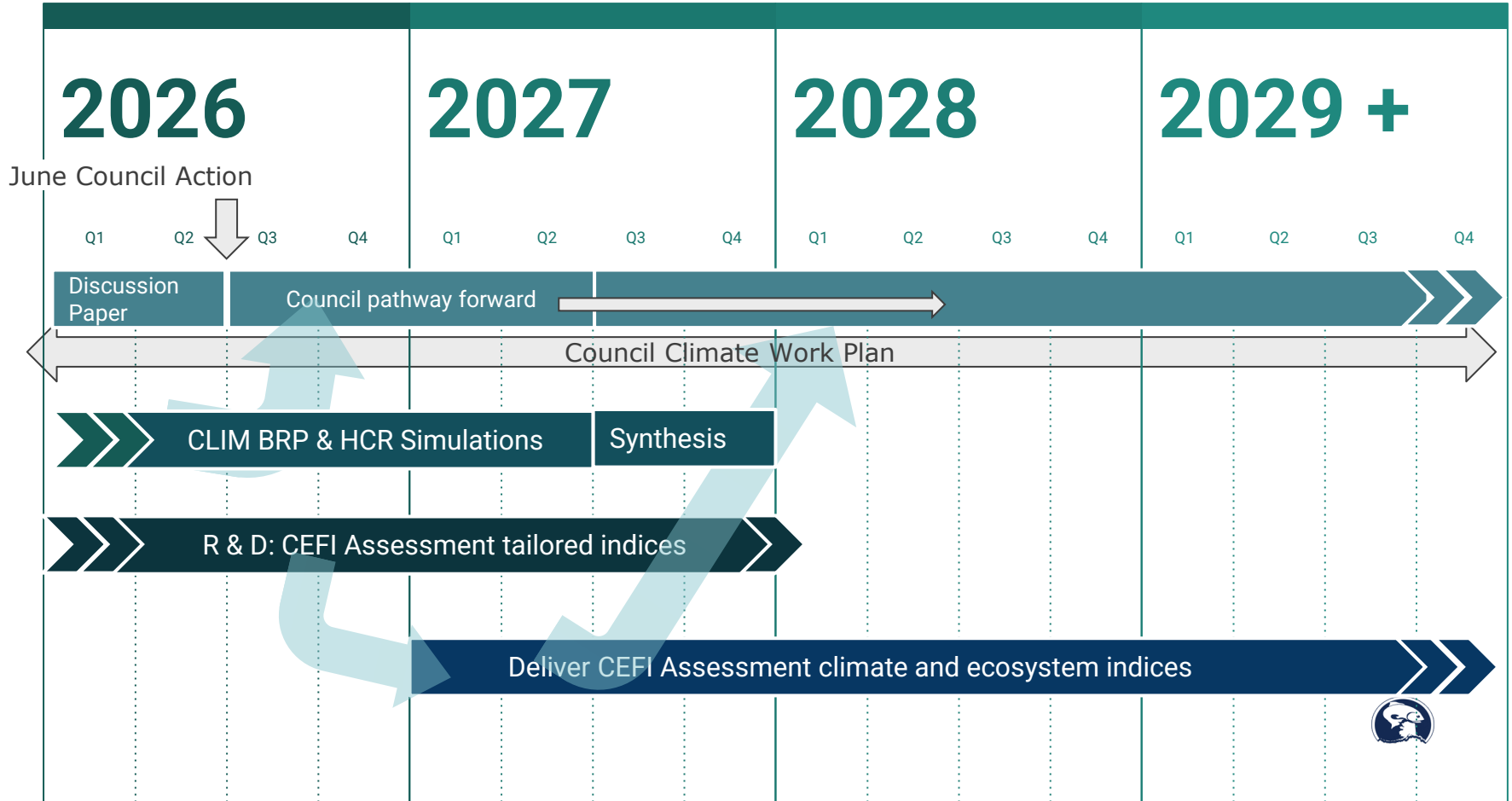
## Duration, timeline and milestones

*Implementation details including proposed timeline for on-going and future work, goals, milestones, and potential deliverables from the workplan analysis.*

### **Status to date:**

Work in progress; detailed timeline and milestones to be included in June 2026 discussion paper





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# Thank you!

**Council HCR webpage:** <https://www.npfmc.org/hcr-project-overview/>

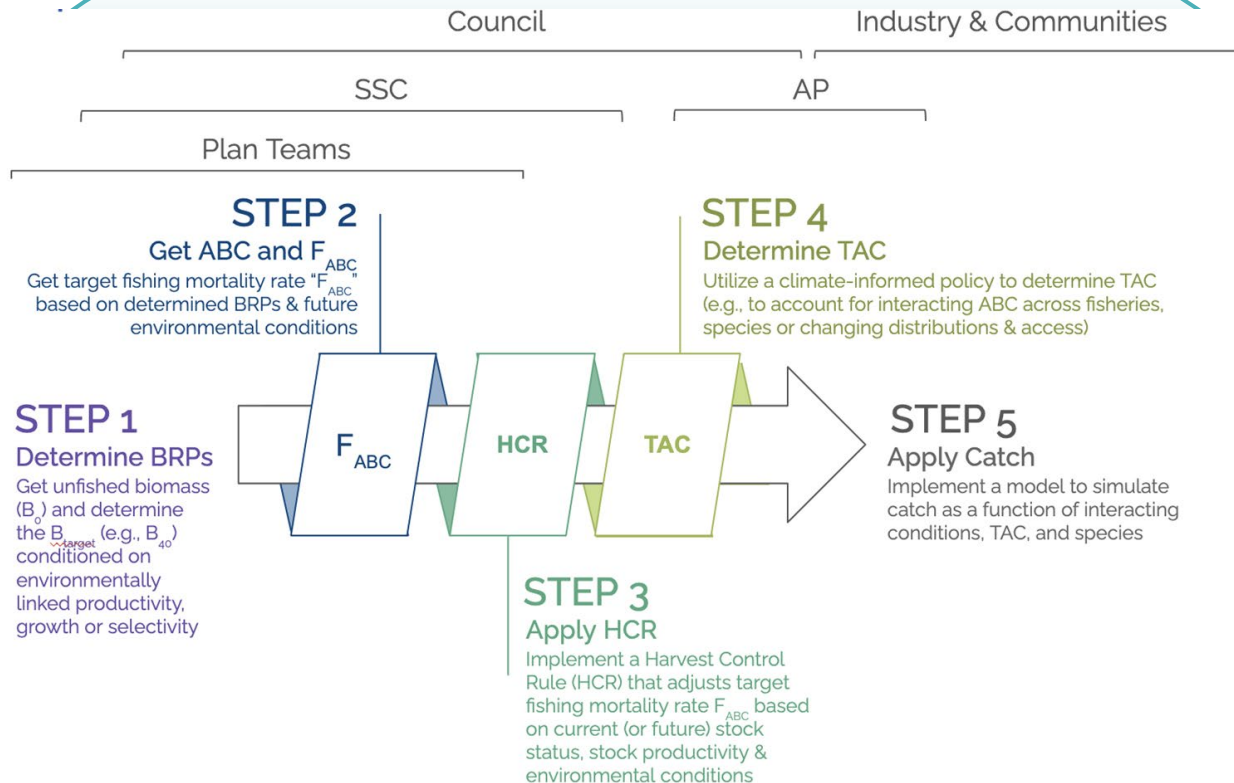




Extra slide



# Climate Informed Advice



Climate workplan will provide the roadmap



Hoslmán et al. in prep

Climate Robust Policy & Process



Conceptual Model