NORTH PACIFIC FISHERY MANAGEMENT COUNCIL
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Report from the Joint Meeting of the Groundfish Plan Teams and the Meeting of the Gulf of Alaska (GOA) Groundfish Plan Team

January 21, 2026

BSAI Groundfish Plan Team Members present:

Steve Barbeaux	AFSC REFM (co-chair)	Kirstin Holsman	AFSC REFM
Kalei Shotwell	AFSC REFM (co-chair)	Andy Kingham	AFSC FMA
Cindy Tribuzio	AFSC ABL (vice chair)	Beth Matta	AFSC REFM
Diana Stram	NPFMC (coordinator)	Jane Sullivan	AFSC ABL
Lukas DeFilippo	AFSC	Steven Whitney	NMFS AKRO
Lisa Hillier	WDFW		

GOA Groundfish Plan Team Members present:

Jim Ianelli	AFSC REFM (co-chair)	Pete Hulson	AFSC ABL
Sara Cleaver	NPFMC (coordinator)	Nat Nichols	ADF&G
Meaghan Bryan	AFSC REFM	Jan Rumble	ADF&G
Abby Jahn	NMFS AKRO	Paul Spencer	AFSC REFM
Craig Faunce	AFSC FMA	James Thorson	AFSC REFM
Lisa Hillier	WDFW	Sophia Wassermann	AFSC RACE
		Ben Williams	AFSC ABL

Introduction

The Joint meeting for the Groundfish Plan Teams ("Teams") occurred on Wednesday, January 21, at 8:00am AKST. This was a hybrid meeting conducted in-person in Seattle at the Alaska Fisheries Science Center (AFSC) and virtually via Zoom. Over 100 people attended the meeting, either in person or virtually. All documents and presentations were posted to the Teams' electronic agenda. All presentations are also linked in the header for each agenda item in this report.

Future meetings: September 21-25, 2026 (tentative), November 16-20, 2026 (tentative). September dates will be confirmed after the February Council meeting.

Overview of December 2025 Specifications Process

Diana Stram and Sara Cleaver provided an overview of the process used by the SSC and Council in December 2025 to recommend 2026 and 2027 groundfish harvest specifications. They noted that updated information on the schedule and planning for Fall 2026 groundfish stock assessments will likely be available following the February SSC meeting.

GOA Ecosystem Status Report (ESR)

Bridget Ferriss presented an abbreviated GOA Ecosystem Status Report (ESR), focusing on indicators that inform ecosystem considerations and population dynamics portions of the Pacific cod risk table.

Overall, environmental conditions in the GOA in 2025 were generally viewed as poor. Surface temperatures in the GOA were at or near marine heatwave conditions throughout the year; warm water

was also observed at depth throughout the year. Lower trophic productivity was reduced while upper trophic productivity was mixed. Cooling conditions are expected in 2026, but concerns were expressed regarding persistent residual heat in the system and associated cumulative ecosystem impacts.

The Team recognized the substantial amount of work involved in collecting and synthesizing data for the ESR and appreciates the contributions of all involved. The Team specifically noted that compilation of the ESR information was completed despite the government shutdown in Fall 2025. They noted how useful it was for discussing the updated GOA Pacific cod assessments and near-term fishery prognoses.

The Team made no formal recommendations but discussed the following:

- There appear to be similarities between the current warm conditions in the GOA and the 2014–2016 marine heatwave event (i.e., "the blob"). Bridgett noted that the oceanography driving the current conditions are different than during the 2014–2016 event. The current warm conditions resulted from advection of deep water offshore and could signal a more long-term and persistent driver for future warming.

- The projections for average-to-cool conditions in late 2026 were noted in light of the fact that recent years have differed from expectations. For example, the warm water in winter 2025/26 appears to be inconsistent with La Niña conditions. Bridgett acknowledged that the relationships of the predictors had been questionable during the last few winters. More direct observations will be available by the spring 2026 Preview of Ecosystems and Economic Conditions (PEEC) meeting.

GOA Pacific cod Ecosystem and Socioeconomic Profile (ESP)

Kalei Shotwell presented the **update** to the Ecosystem and Socioeconomic Profile (ESP) of the GOA Pacific cod stock and the "Report Card."

The Team commended Kalei and coauthors on their expediency in getting the ESP produced and the volume of work in the documents. The Team noted that the new indicator figures on the Report Card provide useful insight and had some suggestions on further development options including incorporating indicator thresholds, or applying a log scale. Kalei noted they are developing code to automate the figures for consistent presentations for other stocks. The Team also noted that the contents of the ESPs would be helpful in developing dynamic structural equation models (DSEMs) and causal diagrams in the future. On inquiring, the Team noted that ESP updates would accompany operational assessments for Pacific cod.

GOA Pacific cod assessment

Pete Hulson presented an operational update to the 2024 GOA Pacific cod assessment meaning that the model was as configured and accepted by the SSC in 2024 (Model 24). New data used included the updated 2024 and 2025 fishery data along with results from two surveys conducted in 2025. Pete discussed how the 2025 GOA trawl survey was conducted under a restratified design and compared that same design with historical data. He noted that the design changes had a very minor effect on the historical survey estimates.

The model fits with the updated data were similar to the previous assessment. The Team discussed at length how the model projects a decline in SSB in the near term followed by an increase. They noted that in a few years as the young fish (assumed to be equal to the mean recruitment since data are unavailable on future recruitment) attain maturity, the spawning stock is expected to increase as a result.The Team noted that such SSB projections were likely optimistic and recalled that Pete had thoroughly analyzed this

phenomenon in previous assessments. Importantly, the Team noted that this has little effect on the projected 2026 and 2027 ABCs.

The risk table categories were rated as "normal", except for the ecosystem considerations category which was rated as "increased concern"due to prolonged warming and prey availability issues. Despite low SSB and recent poor recruitment, the population dynamics category remained "normal" because the recommended ABC accounts for low stock sizes. Therefore, reductions from the maximum ABC were unwarranted. In informal testimony during the meeting, members of the fishing community reported good Pacific cod fishing conditions.

The recommended 2026 ABC of 41,520 t represents a 29% increase from the 2025 ABC. This was due to the fact that the new information indicated an increase and that the spawning biomass had increased relative to the target (closer to the B_{MSY} proxy of $B_{35\%}$ and thus requiring a smaller reduction of the FABC within Tier 3b). **The Team concurred with Pete's recommendations for the 2026 and 2027 OFLs and ABCs using the maximum permissible, based on Model 24.0.**

Additionally, **the Team recommended evaluating harvest projections using a range of projected recruitment levels, including cases where the projected recruitment more closely matches recent estimates.**

The REMA model was applied to apportion the ABC, with minor changes including incorporation of a single process error and an estimated additional observation error. These changes resulted in smoother relative biomass estimates among areas between years. For the next full assessment, the author intends to re-evaluate the AFSC longline survey RPN calculation, which the Team supported.

The Team commended the authors for their work to deliver this assessment product on the shortened timeline and to present the results during an out-of-cycle meeting.

Harvest Control Rules

The Teams received a presentation from Kirstin Holsman and Diana Stram summarizing discussions held at the HCR Workshop January 20th in conjunction with guidance on timing and planning for the February 2026 SSC meeting and plans for a broader workplan discussion at the June 2026 Council meeting. The Teams compiled the following recommendations and discussion items below to be considered by the SSC in developing the forthcoming HCR workplan.

Governance considerations for the HCR Workplan

Recognizing that scientific advice spans a continuum from stock assessments through TAC-setting, **the Teams recommend the workplan include guidance for evaluating F_{ABC}, HCRs, and TAC (e.g., alternative ecosystem caps) both independently and jointly.** These evaluations should inform when and how environmental covariates or other climate-resilience strategies are applied—whether in assessment models, within HCRs, or during the TAC-setting process.

The Teams recommended that the Workplan includes guidance on the scientific steps needed to prepare an alternative HCR for consideration and identify the potential criteria for acceptance of an alternative HCR.

The Teams recommended that the Workplan include a process for periodic updates to the Plan Teams on relevant science research activities (e.g., ACLIM, GOACLIM, CEFI or others) and how they can refine management advice.

The Teams acknowledged and supported that this effort is the exploration of alternative HCRs for setting ABCs, but not for OFLs, at this time.

The Teams discussed that all alternative HCRs reduce to the status quo when omega(s), a set of 3 scaling parameters used in defining F_{ABC} and B/B_{target} and B_{lim} in HCR7 , or similar parameters used in other HCRs equal zero. **Therefore, the Teams recommended prioritizing HCR 7 and HCR 10 from the SSC set of four for evaluation and considering them as the primary alternative HCRs to status quo (i.e., HCR 1).** The Teams supported continued development of HCRs that allow smoothed transitions at biological reference points (B_{target} and B_{lim}), use alternative functional shapes, and provide options for stocks that have remained below B_{target} for many years (e.g., GOA Pacific cod).

The Teams discussed that potential modifications could include adding an omega term on F_{ABC} to HCR 10 to further generalize the alternative HCR (i.e., a "10–7 hybrid"), increasing F_{ABC} above B_{50} or B_{60} for stocks whose species exert high predation pressure, applying fixed catch or declining F below B_{40} to increase flexibility for depleted stocks, and support exploration of alternative HCRs used by other councils (e.g., PFMC and NEFMC; e.g., Adams et al. 2025).

Additionally, the Teams recommended that alternatives such as stair step, or maximum delta in ABC be optional to consider.

The Teams discussed multiple aspects of governance regarding the workplan and alternative HCRs. The Teams noted that HCR 7 may be challenging to implement without time-varying estimates of productivity and reference points and that an alternative to environmentally-linked HCRs is to retain the status-quo HCR structure but update biological reference points using time-varying estimates in assessment models. The Teams therefore supported exploring the performance of environmentally linked assessment models as a potentially preferred option to alternative HCRs. The Teams discussed that given that much of the motivation for developing new HCRs is time-varying processes (i.e., productivity), an initial step could include a review of whether time-varying productivity exists for Alaska stocks using code for estimating time-varying productivity developed by Dr. Marshall and colleagues as part of their 2025 paper (https://doi.org/10.1111/faf.12862).

The Teams noted that some goals might still require alternative HCRs, such as maintaining age class diversity (potentially a benefit of HCR 10), which might not be inherently possible using the current HCR or enhanced stock assessment models.

The Teams cautioned against using environmental indices in both the assessment model and then the HCR. The Teams discussed that alternative HCRs would be used in the case where the assessment model is not capturing concerning dynamics in the stock or system. Therefore, the Teams discussed various methods or approaches for identifying alternative HCR parameters (such as omega). The Teams noted that simulation testing be used to evaluate alternative approaches. This would include parameters set using stock–recruit (S/R) methods consistent with Tier 1 approaches (sensu P. Spencer; e.g., HCR7), historical recruitment patterns over time, environmental covariates linked to omegas, or fit during historical reference period (e.g., 1982-2012).

The Teams discussed outstanding workplan governance questions including whether shadow or research models (e.g., ecosystem-linked or multispecies models) should inform HCR selection and clear delineation of roles and responsibilities across Teams.

The Teams noted that climate-informed HCRs are a national level topic and the Workplan sub-group focused on HCRs could pull from the national level working group to help in recommendations and development.

Implementation triggers

The Teams discussed that alternative HCRs could be proposed by assessment authors or generated through the Groundfish Plan Team process during the September Plan Team meetings. Potential triggers (meaning when to apply an alternative HCR) *might include* (but are not limited to) stocks where

- multiple successive years of SSB are below B_{target} or those with 5+ years in Tier 3b status,
- multiple risk table reductions have been used in the past or where risk table adjustment discussions identified concerning patterns,
- realized catches are substantially below (above) expected catch,
- there appears persistent declines in recruitment, or
- other concerning trends identified through stock assessments, environmental monitoring, or evaluation of stock productivity.

The Teams discussed that alternative HCRs could also include incorporating qualitative and quantitative information from industry and communities as early warning indicators. The Teams discussed that an alternative HCR trigger might also be used for species where the model is in an off year but there is a large change in the environment.

The Teams discussed the tradeoffs in stock specific triggers for implementation of alternative HCRs versus generic approaches that can be applied over multiple stocks. While the September 2025 Plan Teams proposed using generic triggers (e.g., 3- or 5-year rules), this meeting highlighted that triggers are likely to need to be species- or stock-specific. The Teams discussed whether this level of specificity is feasible, or whether grouping approaches (e.g., flatfish, rockfish, gadids, or life-history types) would be more practical. The Teams discussed this at length and concluded that while implementation is ideally considered on a stock by stock basis, evaluation and design could be grouped by broader types of stocks or clustering analysis of typologies of stock needs for (a) environmentally enhanced assessments or (b) alternative HCRs.

The Teams recommended that, for identified stocks, the Workplan draft the main overarching objectives (e.g., ecosystem, catch, biomass) that encompass the problems that each grouping of stocks presents. One possible workplan approach may be to identify groups of stocks first, then define the objectives based upon the unique problems presented by that group.

The Teams recommended that triggers for considering alternative Harvest Control Rules (HCRs) be grounded in elements of the existing Risk Table framework. In particular, alternative HCRs should be used to address issues not already captured by the assessment model (e.g., environmental or ecosystem considerations already included in the model should not be double counted). Specifically the Teams discussed that alternative HCR adjustments should only address factors that are not yet captured by the base assessment model used to set biological reference points and F_{ABC} (e.g., to avoid duplicated adjustments to F_{ABC} based on the same environmental covariate).

Therefore, the Teams recommended that implementation of alternative HCRs must be stock- or species-specific as a case by case basis (e.g., reviewed through the Plan Teams and Council process).

The Teams discussed that simulation testing is likely the most defensible way to identify appropriate triggers rather than relying on arbitrary time-based rules. The Teams discussed methods to prioritize species/stocks for evaluation of alternative HCRs could include the delta-TAC or delta-ABC methods presented by J. Ianelli (for EBS pollock), and/or cluster or guild-based analyses based on historical patterns.

The Teams recommended that in addition to simulation testing alternative HCRs, a set of triggers should also be simulation tested.

Performance criteria and evaluation

The Teams suggest that both counterfactual and simulation testing (not necessarily full MSE for all species) may be useful approaches for evaluating HCR performance and for addressing concerns about double counting ecosystem information and for determining the most appropriate place to include ecosystem effects (assessment model, risk table, or HCR).

The Teams agreed that in general all alternative HCRs should be evaluated through simulation testing (and or counterfactual retrospective analyses) against agreed-upon performance criteria, under different assumptions about forecast skill, and alternative assumptions about whether observed changes in B_{100}, carrying capacity, or recruitment reflect true ecological change or observation error (sensu Samhouri et al. 2025). There was concern expressed that having different HCRs for different species could have inadvertent consequences, thus necessitating that multispecies MSEs be tested with alternative HCRs across different species in the same runs.

The Teams recommended the compilation of a comprehensive set of performance criteria linked to objectives (above) and identification of those that are highest priority. The Teams discussed that performance metrics should be classified by whether they are intended to evaluate simulation performance, implementation performance, or both.