

**Bristol Bay red king crab and Eastern Bering Sea snow crab conservation and management  
Council draft workplan  
November 25, 2022<sup>1</sup>**

In [October 2022 the Council identified](#) Bristol Bay red king crab (BBRKC) and Eastern Bering Sea (EBS) snow crab as a priority conservation concern. The current low levels of these key crab stocks and directed fishery closures in recent years have resulted in significant adverse impacts on harvesters, processors, and communities dependent on commercial crab fisheries. Recognizing that the best available science indicates changes in the ecosystem and temperature as the primary driver of poor crab recruitment and low abundance, the Council is reviewing its current groundfish management measures to determine if additional measures could improve crab bycatch management and further reduce fishing impacts on BBRKC and EBS snow crab.

This draft workplan presents a potential suite of non-regulatory and regulatory management measures for Council-managed fisheries that impact BBRKC and EBS snow crab, including the [October 2022 Advisory Panel \(AP\) recommendations](#) for comprehensive management measures. The draft workplan also provides relevant information and research that could inform revisions to current management measures or development of new management measures. Sources of the information and research suggestions in the draft workplan include recent Council documents, Scientific and Statistical Committee (SSC) recommendations, information provided to the Council by fishery participants, and suggestions developed by Alaska Department of Fish and Game (ADF&G) crab research and management staff.

ADF&G staff are presenting this draft workplan as a tool to assist Council decision making. Specifically, the draft workplan would benefit from input on whether it includes the full suite of non-regulatory and regulatory management measures to minimize crab bycatch and bycatch mortality to the extent practicable in Council-managed groundfish fisheries. In addition, input on the information and research suggestions in the draft workplan could help inform Council decisions on potential management actions.

If the Council determines that the draft workplan is a useful decision tool for evaluating potential actions for managing groundfish fishery impacts on BBRKC and EBS snow crab, the Council could suggest revisions and request review of the revised workplan by the Crab Plan Team (CPT) and the SSC. Input from the CPT and SSC on the scope, feasibility, and utility of the relevant information and research to inform action presented in the workplan would be particularly useful.

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<sup>1</sup> Prepared by Alaska Department of Fish and Game staff, Kendall Henry is the primary contact.

## Potential Council conservation and management measures for Bristol Bay red king crab and Eastern Bering Sea snow crab

Potential Council management action	Management objectives	Information/Research to inform action
<p><b>1. Non-regulatory measures</b></p>	<ul style="list-style-type: none"> <li>Incentivize industry participants to develop voluntary crab bycatch avoidance and other measures to reduce fishing impacts on crab stocks</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">October 2022 groundfish industry reports</a> on voluntary measures for implementation in 2023 and beyond to avoid Bering Sea crab and reduce crab mortality.</li> <li><a href="#">Ongoing groundfish and crab industry efforts</a> to develop gear modifications to reduce impacts on crab stocks and research to evaluate unobserved mortality in the trawl sector.</li> </ul>
<p><b>2. Closed Areas (static or dynamic)</b></p> <p><i>Bristol Bay red king crab</i></p> <ul style="list-style-type: none"> <li>Expand/revise current RKCSA and RKCSS closures</li> <li>Consider other areas for groundfish fishery closures to protect BBRKC</li> </ul> <p><i>Eastern Bering Sea snow crab</i></p> <ul style="list-style-type: none"> <li>Consider areas for groundfish fishery closures to protect snow crab</li> </ul>	<p>Protect crab:</p> <ul style="list-style-type: none"> <li>Habitat</li> <li>Broodstock</li> <li>High density areas</li> <li>Important life stages, e.g., molting and mating</li> </ul>	<ul style="list-style-type: none"> <li>October 2022 Council review of <a href="#">static</a> and <a href="#">dynamic</a> closed area options for BBRKC suggests that limited information on crab biology and habitat needs constrains our ability to evaluate the effectiveness of current closure areas and predict the effectiveness of new areas.</li> </ul> <p><i>Ongoing work</i></p> <ul style="list-style-type: none"> <li><a href="#">Cooperative crab tagging research</a> on the location of Bering Sea crab to better understand seasonal stock distribution.</li> </ul> <p><i>Additional potential short-term work (1-3 years)</i></p> <ul style="list-style-type: none"> <li>Use current tagging data, groundfish observer data, and fishing effects output to evaluate if additional closed areas may be warranted.</li> <li><a href="#">October 2022 SSC suggestion</a> to evaluate existing logbook data to bridge the gap between understanding of survey-based summer distributions and unknown winter distributions to help understand the impacts of a closed area.</li> <li>To address concerns about unobserved mortality from trawl gear, in <a href="#">October 2022 the SSC suggested</a> 1) assessing potential for pelagic trawl bottom contact based on trawl nets and fishing behavior that may be correlated to actual bottom contact, and</li> </ul>

Potential Council management action	Management objectives	Information/Research to inform action
		<p>2) using the Fishing Effects model to identify potential pelagic fishing effort relative to closed areas.</p> <p><i>Additional potential long-term work (&gt;5 years)</i></p> <ul style="list-style-type: none"> <li>• Conduct non-summer crab survey.</li> <li>• Use tagging and non-summer survey data to characterize crab movement throughout the year, specifically females during molting/mating.</li> <li>• Perform studies on timing and location of molting/mating.</li> <li>• Identify important crab habitat for protection.</li> <li>• Evaluate impacts of current closed areas.</li> </ul>
<p><b>3. Align management boundaries</b> <i>Bristol Bay red king crab and Eastern Bering Sea snow crab</i></p> <ul style="list-style-type: none"> <li>• Align crab PSC limit boundaries with the crab stock management area and stock assessment boundary</li> </ul>	<ul style="list-style-type: none"> <li>• Create consistency in stock management for the crab fishery, stock assessment, and bycatch measures</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">April 2022 Council review</a> suggests there would be limited impacts on crab stocks, but alignment of boundaries could improve transparency of crab PSC management.</li> <li>• May require revising PSC limits to correspond with redefined PSC area boundaries.</li> </ul>
<p><b>4. Improve bycatch management</b> <i>Bristol Bay red king crab and Eastern Bering Sea snow crab</i></p> <ul style="list-style-type: none"> <li>• Remove or revise trawl crab PSC limit floors</li> <li>• Update trawl crab PSC limits based on status of crab stocks</li> <li>• Add a 10% carryover provision to the Crab Rationalization Program</li> <li>• Establish non-trawl crab PSC limits</li> </ul>	<ul style="list-style-type: none"> <li>• Revise bycatch management to create stronger incentives to avoid crab</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">February 2021 Council review</a> shows BBRKC PSC limits can be constraining, particularly for non-pelagic trawl gear fisheries and snow crab PSC limits have not generally constrained trawl groundfish fisheries.</li> <li>• <a href="#">October 2022 Council review</a> of non-trawl gear PSC limits for BBRKC suggests that establishing pot gear PSC limits may be challenging due to limited observer data from Pacific cod fishery.</li> </ul>