

## ECOSYSTEM WORKGROUP REPORT ON THE CLIMATE AND COMMUNITIES INITIATIVE

Members of the Ecosystem Workgroup (EWG) participated in the Climate and Communities Core Team (CCCT) public briefing on the initiative on September 2, 2021 and appreciate the efforts of Council staff and the CCCT in arranging that briefing.

At our meeting on September 10, 2021, we reviewed the CCCT Report 1 for Agenda Item H.2 and discussed our experiences participating in the workshops the Council convened in support of this initiative. We appreciate the CCCT's efforts to assemble and sort ideas from the workshops that were related to fisheries management. However, we noted that the workshops included discussions of an array of interesting issues outside of fisheries management, particularly on the challenges of seafood marketing under changing environmental, management, technological, and market conditions. The EWG is uncertain where ideas on seafood marketing under climate variability and change might best be used, but wanted to draw the attention to the worksheets from the December 2020 – February 2021 workshops posted on the [Council's website for the initiative](#) on February 4, 2021.

The EWG fully supports more robust inclusion of climate variability and change effects when considering management of our marine fisheries and ecosystems. While we appreciate the suite of recommendations provided in the CCCT report, we suggest that the Council not adopt the tasks suggested without providing guidance on Council priorities for those tasks. Many of the tasks suggested by the CCCT are achievable, but they will likely only be achieved if the Council makes time for the work in its own agenda and in the agendas of its advisory bodies. If the Council agrees that it should take on some version of the tasks recommended by the CCCT, the EWG recommends that the Council include its final list of tasks as background materials with each of its future advance briefing book items provided for its Future Council Meeting Agenda and Workload Planning agenda items.

The EWG recommends that the Climate and Communities Initiative, or a second-generation version of it continue, as the H.2.a, CCCT Report 1 does not conclude that the Council has "...developed and implemented strategies for improving the flexibility and responsiveness of our management actions to near-term climate shift and long-term climate change, and strategies for increasing the resiliency of our managed stocks and fisheries to those changes," which was the stated goal of the Initiative. If the Council decides to continue the CCI or pursue an additional initiative focused on the effects of climate variability and change on fish stocks and fisheries, the CCCT suggests that the next steps of an initiative be directed to the EWG, likely with new members added with relevant expertise and interests, and to the Ecosystem Advisory Subpanel (EAS) as the core advisory bodies for the Council on ecosystem issues, along with the other Council advisory bodies for fishery management plan (FMP)-specific strategies. Alternatively, the Council could form a new and distinct group with the appropriate climate expertise to carry this work forward and in conjunction with other related efforts at the National Oceanic and Atmospheric Administration (NOAA), e.g., Climate and Fisheries Initiative, Western Regional Action Plan, and the California Current Integrated Ecosystem Assessment.

We comment on the CCCT’s numbered recommendations, below. Additionally, the EWG recommends that Council staff work with management teams, technical teams, and agency staff to ensure that the science and management analyses presented to the Council in support of Council decision-making include consideration of the effects of a changing climate on the species and fisheries we manage.

<b>EWG review of CCCT recommendations from Agenda Item H.2.a, CCCT Report 1</b>	
<i>CCCT Recommendation Number</i>	<i>EWG Recommendations and Notes</i>
1.a.i.	This CCCT recommendation includes a suite of potential tasks. In its supplemental report on the fishery ecosystem plan (FEP) update, the EWG suggests drafting two potential new ecosystem initiatives for the Council’s consideration in March 2022 that would address at least some of the items in this CCCT recommendation: 1) Add a potential initiative to review the incorporation of climate and ecosystem information into fishery management plans and other Council processes; 2) Add a potential initiative to develop and evaluate indicators and reference points to assess progress towards FEP Goals and Objectives.
1.a.ii.	In addition to the draft potential initiatives mentioned under 1.a.i, we support the comments from the Scientific and Statistical Committee (SSC) on 1.a.ii. There is a need to develop a path to incorporate NOAA’s climate vulnerability assessments into the stock assessment prioritization process and a need for a path to incorporate this information into harvest policy. We urge NOAA to finalize the finfish climate vulnerability assessments. We also note that there is additional work underway to assess the population dynamics of species under all four FMPs in relation to predicted future oceanographic conditions as part of the Future Seas and other projects at the Science Centers.
1.a.iii.	We note that the Integrated Ecosystem Assessment (IEA) team is already working in support of the pre-season salmon science and management process to make information from the ecosystem status report available to salmon managers in January-February. The EWG has suggested a more formal process for evaluating the needs for this information through a potential ecosystem initiative, as mentioned above under 1.a.i.
1.a.iv	The annual ecosystem status reports already include a variety of indicators on the state of the climate. However, attribution of climate change influences on these climate indicators could helpfully address this CCCT recommendation. We suggest that IEA scientists discuss this possibility with the SSC and other advisory bodies as part of their 2022

	discussions on potential revisions to the contents of the March 2023 ecosystem status report.
1.b	We note that collaborative research with the fishing industry and integration of traditional ecological knowledge into Council processes are two different categories of work. Although both can be useful, they would likely need different pathways for entering the Council process. Both Science Centers are currently investigating survey priorities and survey data completeness and utility in fisheries management. Collaborative research and collecting traditional ecological knowledge may supplement existing survey work.
2.a.i and 2.a.ii	<p>The EWG supports this recommendation, but notes that implementing the recommendation would require that the Council prioritize the work for itself and its advisory bodies. While there may be some initial, upfront time costs to the Council and its advisory bodies, implementing these recommendations could lead to longer-term efficiencies.</p> <p>The EWG addressed recommendation 2.a.ii.3 in our supplemental report on the FEP update through recommendations for draft potential ecosystem initiatives.</p>
2.b	The EWG supports this recommendation and suggests that the workshop discuss adapting to and mitigating for the effects of climate change on fish stocks and fisheries across jurisdictional boundaries.
2.c	The EWG supports this recommendation and will implement it unless directed otherwise.
2.d	We support a suggestion from Dr. Kit Dahl, Council staff officer, that the staff of this fishery management council work with their colleagues at other fishery management councils to share information on fisheries management actions taken to mitigate for the effects of climate change annually during Council Coordination Committee meetings. Pacific Council staff could then report out to our full Council on the results of those national-level discussions.
2.e	The EWG supports this recommendation, which would support FEP Objective 3c: <i>Support education efforts to promote understanding of CCE biophysical processes, how the ecosystem affects human well-being, and of the potential risks and benefits to ecosystem services from climate variability and change.</i>
2.f	Section 5.3 of the draft FEP discusses the scenario planning process. In its supplemental report for H.1, FEP update, the EWG recommends revising Chapter 2 of the FEP to include a summary of the Climate &

	Communities Initiative if the initiative is concluded at this September 2021 Council meeting.
3.a	The EWG supports a careful analysis of fisheries disaster declarations related to the effects of climate change. We also recommend further analysis into ecological surprises, including any new opportunities that may have emerged, such as the movement of targeted stocks northward.
3.b	The EWG supports this recommendation.
3.c	NOAA Fisheries staff on the EWG note that if NOAA Fisheries is asked to write up this report, it will likely be similar to the technical reports on scenario planning for <a href="#">Atlantic salmon</a> and <a href="#">Atlantic right whale</a> . The EWG recommends that any such report distinguish insights and recommendations that are new to the Council and its advisory bodies versus those that are long-standing recommendations. It would also be helpful to comment on how actionable the two categories of recommendations are.

PFMC  
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