

## ECOSYSTEM WORKGROUP REPORT ON FISHERY ECOSYSTEM PLAN INITIATIVES

The Ecosystem Working Group (EWG) met on March 8 and 9, 2022 to discuss the Fisheries Ecosystem Plan (FEP) Appendix and proposed initiatives. We submitted the revised FEP Appendix, including the revised initiatives, as part of the advanced briefing book under [Agenda Item H.3.a. EWG Report 1](#). In this supplemental report, we follow up on remaining Council tasks from the Climate and Communities Initiative (CCI) in September 2021, which asked that the Ecosystem Workgroup (EWG):

- Group activities identified during the CCI for future Council work according to whether they are part of the ongoing work of the Council under its Fishery Management Plans (FMPs), a potential future FEP initiative, or other Council-relevant activities that do not fall within the first two categories.
- Review recommendations from advisory bodies and the public on potential tasks flowing from the CCI that may not be suitable for FEP initiatives, but which could be either integrated into core FMP work done by the Council and its advisory bodies in the course of Council business, or viewed as collaborative or research or informational work best done outside of the Council process.
- Prioritize the list of activities and assess the likely workload associated with each.

In drafting the revised FEP Appendix ([Agenda Item H.3.a, EWG Report 1](#)), we incorporated the relevant portions of the Climate and Communities Core Team (CCCT) report (September 2021 Council Meeting, [Agenda Item H.2.a, CCCT Report 1](#)) and the recommendations from the advisory bodies into the revised FEP initiatives. In Table 1 of this supplemental report, we summarize the recommendations from the CCCT and other advisory bodies and public, indicating which recommendations have been included as parts of draft initiatives in the revised FEP Appendix, and which activities are not suitable for FEP initiatives, along with our initial prioritization based on the comments the Council received in September. We note that some work that was recommended by the CCCT has already begun – namely the addition of climate change indicators into the 2022 Ecosystem Status Report ([Agenda Item H.2.a, CCIEA Team Report 1](#)).

While many of the CCCT report recommendations are addressed in part by the new draft initiatives we proposed in our advance briefing book report, the time it would take to complete them is quite long. Thus, the EWG recommends that the Council carefully consider and prioritize intersection points between FEP Initiatives and CCCT report recommendations. The most commonly flagged FEP initiatives in Table 1, and those that should be Council priorities, are: (1) Review the incorporation of climate and ecosystem information into fishery management plans and other Council processes (draft Initiative 2.1), and (2) Support fishery and fishing community resilience (draft Initiative 2.6). Furthermore, we agree with the idea in [the public comment letter](#) submitted February 16, 2022, that we should encourage the CCI to evolve from documenting the problem of climate change and providing information about it, to supporting fish stock and fisheries adaptation to climate change with new Council activities. September 2021 CCCT recommendations 2.a.i and 2.a.ii, shown below in Table 1, provide some practical guidance for moving forward, but are more complex than a single FEP initiative and will require ongoing Council attention to opportunities in its future agendas for using climate information in its management processes.

The EWG recommends that the Council:

1. Provide guidance on any revisions to the FEP Appendix and send it out for further review by advisory bodies and the public, for final adoption in September 2022. If the Council recommends combining any of the draft initiatives in EWG Report 1, the Council should also provide guidance on whether the original draft initiatives should be left in the draft Appendix or removed and replaced by the combined initiative.
2. Provide guidance on a potential new initiative by either:
  - a. Choosing a specific initiative from the draft FEP Appendix to prioritize, and ask the EWG to draft a workplan and roles and responsibilities for the Council to consider in September; or
  - b. Choosing to combine elements of various draft FEP Appendix initiatives and ask the EWG to draft a description, workplan and roles and responsibilities for the Council to consider in September;
3. Provide guidance and begin getting CCI-recommended workload items that do not fit well into an FEP initiative on the agendas of FMP-specific advisory bodies to ensure that climate information is used more broadly throughout FMP and advisory body discussions. As mentioned above, CCCT recommendation 2a ([CCCT Report 1, Agenda Item H.2.a, September 2021](#)) requires particular attention.

**Table 1**

CCCT report recommendation	Category of Action	Priority (Based on advisory body feedback from Sept 2021)	Details
<p><b>1.a.i</b> Report specifying processes to address incorporating climate variability and change data and information into our stock assessments, ecosystem assessments, scientific advice, and decision-making, including expected shifts in stock abundance and distribution, and ecosystem conditions, over the next 5-20 years.</p> <p><b>1.a.ii</b> Use NOAA’s climate vulnerability assessments to prioritize stocks for climate MSEs intended to develop climate-ready harvest control rules and other management measures.</p>	<p>Ongoing and Potential future FEP initiative</p>	<p>High</p>	<p>See Ch 5 of revised FEP and the following draft potential FEP initiatives proposed by EWG in its March 2022 advance briefing book report for this agenda item: draft Initiatives 2.1, 2.2, 2.3, 2.4, 2.6, and 2.7.</p> <p>The 2022 Pacific Hake assessment included qualitative discussion of oceanographic conditions influencing incoming recruitment. The CCIEA team also introduced an expanded Ecosystem Considerations section into the 2019 sablefish stock assessment.</p> <p>Recommendation 1.a.i supported by EWG, SSC, CPSAS, CPSMT, and SAS. Recommendation 1.a.ii supported by CPSMT with concerns from EWG, SSC.</p>
<p><b>1.a.iii</b> Bring FMP-specific ecosystem reporting into the Council process at times when it is most needed and useful, supplementing the annual ecosystem status report (ESR) and harvest decisions that are under development.</p>	<p>Potential future FEP initiative</p>	<p>High</p>	<p>Could be addressed by two draft FEP initiatives proposed by EWG in March 2022: 2.1, <i>Ecosystem and Climate Information for Species, Fisheries, and FMPs</i>, and 2.6, <i>Supporting Fishery and Fishing Community Resilience</i>.</p> <p>Recommendation supported by EWG &amp; SSC with concerns from CPSMT.</p>

<b>CCCT report recommendation</b>	<b>Category of Action</b>	<b>Priority (Based on advisory body feedback from Sept 2021)</b>	<b>Details</b>
<p><b>1.a.iv</b> CCIEA team includes an appendix in the annual ESR that provides information specific to climate change, takes into account the CCI scenarios, and develops climate early warning indicators.</p>	Other Council-relevant activities (ESR)	Medium	The 2022 ESR includes a pilot Climate Change Appendix and the CCIEA team is soliciting input on how to build it out. Recommendation supported by EWG and CPSMT.
<p><b>1.b</b> Task advisory bodies to explore the use of citizen science and Traditional Ecological Knowledge, through community-based, and collaborative efforts in data collection for tracking climate change.</p>	Other Council-relevant activities	Low	As mentioned in the <a href="#">September 2021 EWG Supplemental Report</a> , collaborative research with the fishing industry and the integration of TEK would need different pathways for entering the Council process. Current advancements of the inclusion of information from collaborative research can be seen in the albacore diet study data that were incorporated in this year's ESR.
<p><b>2.a.i</b> Define flexibility and adaptability in the context of shifting West Coast stocks and identify appropriate considerations, based on scenario planning results and informed by a report from The Nature Conservancy.</p>	Potential future FEP initiative + Other Council-relevant activities	High	Partially addressed by the draft FEP initiative 2.6, EWG in March 2022, <i>Supporting Fishery and Fishing Community Resilience</i> . Strong support from CPSMT, CPSAS, HC provided this work is prioritized by the Council.

<b>CCCT report recommendation</b>	<b>Category of Action</b>	<b>Priority (Based on advisory body feedback from Sept 2021)</b>	<b>Details</b>
<p><b>2.a.ii</b></p> <p>All FMP-specific advisory subpanels and management teams report back to the Council on:</p> <ol style="list-style-type: none"> <li>1. Barriers in the management of their fisheries to addressing the effects of ecological or management surprises and shifting stocks through in-season management actions, and on measures the Council could take to increase management nimbleness pre-season and in-season, while supporting long-term stock and ecosystem integrity;</li> <li>2. Priorities and processes for review of exempted fishing permit applications and recommendations about how such permits could be deployed to advance climate ready fisheries; and</li> <li>3. Opportunities for and challenges to embedding climate variability and change into our assessments, decision tables, and scientific advice for fishery management unit species, with advice and input from the SSC.</li> </ol>	<p>Potential future FEP initiative + Other Council-relevant activities</p>	<p>High</p>	<p>At least two draft FEP initiatives proposed by EWG in March 2022 partially address 2.a.ii.1 and 2.a.ii.3: draft initiatives 2.1, <i>Ecosystem and Climate Information for Species, Fisheries, and FMPs</i>, and 2.6, <i>Supporting Fishery and Fishing Community Resilience</i>.</p>

CCCT report recommendation	Category of Action	Priority (Based on advisory body feedback from Sept 2021)	Details
<p><b>2.b</b> Future workshop involving members of the Council family that engage with regional fishery management organizations and other international forums that have management responsibility for West Coast fish stocks.</p>	Other Council-relevant activities	High	EWG, CPSMT, and HMSMT offered strong support for this recommendation. Also in line with <a href="#">public comment letter</a> recommendation to “Increase communication and coordination efforts with adjacent jurisdictions to plan for transboundary stock issues.”
<p><b>2.c</b> EWG includes statement in the Council’s Guidance Document on Offshore Non-Fishing Activities on the role of greenhouse gas emissions in climate change and related implications for West Coast fisheries</p>	Other Council-relevant activities (FEP Stand Alone Document, MPC/HC Policy Guidance Documents)	High	The EWG included greenhouse gas emissions in the list of non-fishing human activities that affect Council-managed resources found in EWG Report 1 for agenda item C.2.a, March 2022. The Council can complete this CCCT task by ensuring that its future marine planning policy documents address greenhouse gas emissions.
<p><b>2.d</b> Annual updates on actions taken by other U.S. fishery management councils to better prepare fisheries for climate change.</p>	Other Council-relevant activities	Medium	Support from EWG and CPSMT on informational report or agenda item, based on Council Coordination Committee meeting activities. For this CCCT recommendation to be implemented, the Council would need to prioritize time for this action in either its March or September meetings.

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<b>2.e</b> Permanent Council webpage for climate-related work and resources to assist in educating and engaging the public.	Other Council-relevant activities	High	Support from EWG and CPSMT. Could be implemented by PFMC staff at the direction of the Council.
<b>2.f</b> EWG references the final Scenario Planning Report(s) in the FEP as an example of potential impacts of climate change.	Other Council-relevant activities (FEP)	N/A	Completed, FEP Section 5.2
<b>3.a</b> NMFS reports on the West Coast fisheries' disaster determinations made in response to events that could be characterized as climate variability or change since 2010.	Other Council-relevant activities	High	Support from EWG and CPSAS. For this CCCT recommendation to be implemented, the Council would need to ask for the report from NMFS and set aside time to receive the report at a March or September meeting.
<b>3.b</b> NOAA Fisheries reports on coordination among its hatchery, habitat, and hydropower policies to buffer Pacific salmon stocks against climate change effects.	Ongoing (Salmon FMP)	Medium	The Council would need to ask for the report from NMFS and set aside time to receive the report at a meeting with salmon agenda items. Support from EWG, HC, CPSMT
<b>3.c</b> NOAA Fisheries evaluates the Council's scenario planning process and outcomes.	Other Council-relevant activities	Low	No support from advisory bodies