

## ECOSYSTEM WORKGROUP SUPPLEMENTAL REPORT ON THE CLIMATE AND COMMUNITIES INITIATIVE UPDATE

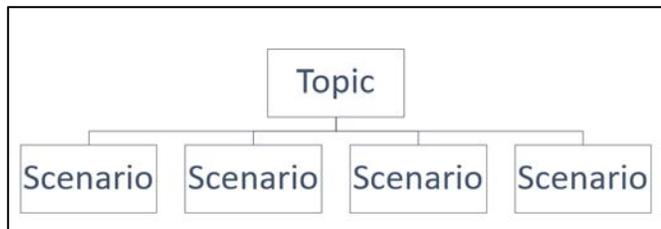
The Ecosystem Workgroup (EWG) submitted an advance briefing book report with its thoughts on the Climate and Communities Initiative, including potential scenario topics that focused largely on salmon and groundfish. We met via webinar with the Highly Migratory Species (HMS) Management Team on February 22, 2019, and with the Coastal Pelagic Species (CPS) Management Team and Advisory Subpanel on March 1, 2019, and held further discussions on this issue at our March 6-7, 2019 meeting. We thank the HMS and CPS management teams and advisory panel for taking the time to accommodate pre-Council discussions of the initiative. In this supplemental report, we discuss a potential process and schedule for scenario planning, existing fishery management measures in the HMS and CPS fishery management plans (FMPs) that may help mitigate the effects of climate variability and change on those fisheries, and recommendations for Council action at this March 2019 meeting.

### *Process and Schedule for Developing the Climate and Communities Initiative*

The EWG discussed a schedule and process for scenario planning that would allow the Council to schedule workshops in support of the process during the autumn/winter months, when more Council process participants may be available. That schedule would also provide sufficient time for the EWG to be fully prepared for those workshops. The EWG recommends the following draft schedule, which builds on the November 2018 suggestions of the Ad Hoc Climate Scenario Investigations Workgroup,<sup>1</sup> and which takes into account conversations with management teams held over winter 2018/19:

#### March 2019 PFMC meeting:

1. Council identifies one topic for further exploration and development by a core team. The core team would be composed of the EWG plus additional people with topic-specific technical expertise.



2. Council to provide feedback on proposed timeline and workload.
3. Council identifies types of expertise needed to supplement the EWG on core team. For example, if the Council chooses a scenario focused on groundfish, the Council might recommend adding groundfish biologists to scenario development participants. The work of the core team would primarily occur between March and September 2019. The Council may also wish to comment on whether professional facilitation might be useful to this part of the process.

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<sup>1</sup>[https://www.pcouncil.org/wp-content/uploads/2018/10/H1a\\_Supp\\_CSI\\_Rpt1\\_ScenarioPlanningFramework\\_NOV2018BB.pdf](https://www.pcouncil.org/wp-content/uploads/2018/10/H1a_Supp_CSI_Rpt1_ScenarioPlanningFramework_NOV2018BB.pdf)

4. Council provides guidance on identification of stakeholder participation for later stages of the process (September-December 2019).

Spring-Summer 2019:

1. Council staff and EWG to identify, based on Council guidance, personnel to supplement EWG in Core Team.
2. Identify topic background information needed for scenario planning.
3. Core Team to meet in person before July to review background information and develop draft scenarios under Council-identified topic. Identify drivers of change, being certain to include fish abundance and distribution.
4. For August briefing book deadline, prepare report to Council that includes materials in support of scenario planning that could be used in Fall/Winter stakeholder discussions.
5. Hold webinar prior to the September Council meeting to brief interested management teams and advisory bodies on scenario planning materials and process.

September 2019 PFMC meeting:

1. Core team to update Council on progress to date in scenario planning.
2. Council to review process and schedule for September 2019 - March 2020 period.

Fall-Winter 2019-2020:

1. Core Team shares advance scenario planning materials with stakeholder workshop participants and the public.
2. Core Team and Council staff conduct stakeholder scenario planning workshop, preferably held in December 2019 or January 2020.
3. Core Team reports results of workshop by February briefing book deadline.

March 2020 PFMC meeting:

1. Core Team reports results of workshop to Council at March 2020 meeting.
2. Council to review progress to date and assess next steps.

Draft scenario planning schedule (same as above, but in table format)

	March 2019	Spring - Summer	Sept 2019	Fall - Winter	March 2020
Council makes recommendations on core team and process and selects a topic					
Council leadership, staff and core team ID personnel to supplement the EWG on the Core Team					
Core team ID necessary background information and experts					
Core team meets to review background material and ID drivers of change					
Core team to host webinar to inform MTs and ABs on materials and process					
Council to review materials and process and schedule for Sept - March					
Core team shares workshop materials with participants and the public					
Core team to host workshop					
Core team reports on workshop to Council					

***Existing Fishery Management Measures that May Mitigate for the Effects of Climate Change on Fish Stocks and Fisheries***

The EWG reported on its conversations with the Salmon Technical Team and the Groundfish Management Team in our advance briefing book report for this agenda item. The collective suite of management measures from the Council’s four FMPs that may help mitigate for the effects of climate variability and change on fish stocks and fisheries will be useful to future work on this initiative, to updating the FEP, and to considering how management measures in one FMP may be used across FMPs.

Highly Migratory Species Fishery Management Plan. For our February 22, 2019, meeting with the HMS Management Team, we discussed:

- How can existing policies in the HMS FMP address climate change impacts?
- What FMP tools or management measures would be most useful for adapting to climate-induced changes in HMS fisheries?
- What are the most important climate drivers affecting West Coast HMS populations?
- If a climate scenario focuses on just one HMS species/stock, which one should it be?

Because HMS are wide-ranging, far beyond the West Coast EEZ, management of HMS is heavily influenced by regional fishery management organizations (RFMOs) and other international bodies. Most fisheries for HMS on the West Coast operate without catch quotas and without in-season management. For most HMS, stock assessments are conducted by the International Scientific Committee for tunas and tuna-like species. Other Councils also manage fisheries targeting some of the HMS species in the Pacific Council's HMS FMP.

HMS management is complex, due to several management entities and international fisheries being involved for each species. The HMS FMP is flexible and provides opportunity to tailor management actions to the level of management need. Management processes are not swift and in-season action is generally not feasible unless pre-arranged as an option in a prior management action. Some West Coast HMS management measures for tunas are implemented under the Tuna Conventions Act rather than Magnuson-Stevens Act.

Management by RFMOs is generally an annual process. The Council has a biennial management process that begins in June and ends in March and HMS management years are April 1- March 31. Topics for biennial management by the Council generally have come from four perspectives: a need for recreational fishery management; fishery regulation changes to reduce bycatch; required Council response to address a designated overfished or overfishing status for a species; and authorization of new gears or fisheries.

Fisheries databases for FMP HMS include landings through state fish ticket systems, and fishing activities reported in Federal and state logbooks for commercial, recreational and charter fisheries. Dockside sampling programs for some HMS provide information on the size composition of fish in the landings.

Environmental conditions, especially temperature and coastal upwelling, influence the distribution and success of HMS fisheries and also their interactions with many species of sea turtles, marine mammals and other fishes. Bycatch concerns for most of these species are a significant factor in the management of some HMS fisheries. Observers are often required for HMS fisheries as part of the Council's efforts to monitor bycatch and develop measures to reduce it. Fishery closures to protect leatherback and loggerhead sea turtles are based on their distributions observed in fishery catches, and therefore, are largely influenced by environmental conditions. For example, time-area closures are implemented for loggerhead sea turtles during El Niño years. In addition, essential fish habitat (EFH) for HMS is temperature-based, meaning that habitat areas for particular species are linked to pelagic zones that stay within certain temperature ranges and are not necessarily geographically fixed.

Coastal Pelagic Species Fishery Management Plan. For our March 1, 2019, meeting with the CPS Management Team and Advisory Panel, the EWG asked participants similar questions to those we discussed with the other management and technical teams. For the CPS management process, we focused in on:

- What in your FMP helps the management team deal with climate change?
- What changes or additions to the FMP would be helpful to deal with climate change?
- What CPS scenarios do you foresee with climate change? and if there is more time elaborate on these topics and whatever else people want to discuss.

The CPS FMP has a variety of measures, both technical and management based, that are intended to help with the inherent variability of CPS populations, and which may also help deal with the challenges of climate change. For example the intent of the existing environmental parameter in the Pacific sardine harvest control rules is to explicitly adapt harvest levels in response to environmental variability. Additionally, EFH for CPS is temperature-based. The east-west geographic boundary of EFH for CPS is defined to be all marine and estuarine waters from the shoreline along the coasts of California, Oregon, and Washington offshore to the limits of the EEZ and above the thermocline where sea surface temperatures range between 10°C to 26°C. The southern boundary is the U.S.-Mexico maritime boundary. The northern boundary is more dynamic, and is defined as the position of the 10°C isotherm, which varies seasonally and annually.

Beyond the technical aspects described above, the CPS FMP has other management measures or tools that are intended to help with the variability in these stocks. For example the limited entry permit required to fish for CPS finfish south of Point Arena, California is a multi-species permit to allow fishermen the flexibility to move among species based on availability. Additionally, the framework approach to management in the CPS FMP was intended to allow changes and modifications to management procedures to be made in a timely and efficient manner without need to amend the FMP. The FMP establishes two framework procedures (points of concern and socioeconomic) through which the Council is able to recommend establishment and adjustment of management measures.

It was noted, however, that with regards to the CPS limited entry permit, that north of Point Arena there are individual state permits for some of the CPS and that individuals that fish for CPS in the Pacific Northwest don't necessarily fish for multiple CPS and instead rely on other species or fish in other areas during non-CPS fishing seasons.

### ***Summary of EWG Recommendations***

- Council chooses one topic for evaluation under scenario planning. We recognize that some topics are more complex than others, and that the Council may choose some amalgamation of topics presented by advisory bodies and the public. However, we note that this scenario planning process will be the first time that a fishery management council has attempted scenario planning. To improve the likelihood of success, we do not recommend that the Council choose the 2-3 topics suggested by the Climate Scenarios Investigations Workgroup in November 2018 unless they can be integrated/combined into a single process. If this process proves successful, the Council may wish to use scenario planning on additional topics going forward.
- Council review and comment on process and schedule for scenario planning.
- Council provide broad guidance on additional expertise that may be needed for the Core Team, based on their selection of topic.
- Council review and comment on existing management measures that may mitigate for the effects of climate variability and change on fish stocks and fisheries and provide guidance on whether the completed review fulfills the Council's intent.