

## GROUND FISH MANAGEMENT TEAM ON CLIMATE AND COMMUNITIES INITIATIVE UPDATE

The Groundfish Management Team (GMT) reviewed the briefing book materials and met with the Ecosystem Workgroup (EWG) during our January work session<sup>1</sup> to discuss the Fishery Ecosystem Plan (FEP) Climate and Communities Initiative.

The GMT commends the EWG on the work accomplished on this initiative, particularly considering the challenges presented by the partial government shutdown. The information on the Groundfish Fishery Management Plan outlined in the EWG report ([Agenda Item E.2.a, EWG Report 1, March 2019](#)) reflects our discussion in January and provides a good overview of the groundfish management process and what management measures are available to be flexible to changing environmental conditions. Furthermore, the report highlights an important management consideration: the impact on groundfish fisheries of fishermen from non-groundfish fisheries shifting to groundfish fishery effort in response to environmental changes. The GMT believes this type of effort shift is extremely important to consider when selecting scenario topics.

The GMT also reviewed the scenario planning topics in the EWG report and think that they offer a comprehensive range for the Pacific Fishery Management Council (Council) to consider. **We recommend the Council consider the Regional Mosaic scenario as a starting point.** To assist the EWG in their discussions, we also focused our discussion on steps that might inform the selection of topics based on information that might already be available or in progress. We think the selection of topics within the Regional Mosaic scenario would benefit from some interaction with the Northwest and Southwest Fisheries Science Centers (Science Centers), where a considerable amount of work is being directed at modeling predicted ocean conditions in the California Current Ecosystem in the next ten to twenty years.

Specifically, the GMT requests the Council have the EWG look into the research that is being conducted as part of the Western Regional Action Plan (WRAP). The WRAP is part of the broader NOAA Fisheries Climate Science Strategy and outlines strategies aimed to understand the effects and potential management responses of climate change on ecosystems and communities. The WRAP Implementation Team (WRAPIT), which consists of scientists from the Science Centers, is working on developing two case studies that the GMT believes are relevant to the EWG's scenario planning efforts. The first case study will focus on salmon from the Columbia River and Puget Sound and will use fairly sophisticated ecosystems models such as Ecotran or Atlantis to predict salmon dynamics under different climate scenarios. This case study will thus be highly relevant to EWG scenario planning topics 1 and 3. The second WRAPIT case study will focus on predicting how the behavior and availability of coastal pelagic forage species such as sardine and anchovy will be affected by climate change. This research, therefore, dovetails perfectly with the EWG's scenario plan 7. A stated goal of the WRAPIT is to help management, and informing the

---

<sup>1</sup> Due to the Federal Government shutdown, National Marine Fisheries Service staff were not able to participate in the work session for either the GMT or the EWG.

development of the EWG scenario planning could be an excellent implementation of this goal. Regardless of what topic is selected, **the GMT recommends that the Council's choice of which scenario plan to explore be made in light of the research conducted by the WRAP Implementation Team, and that the EWG work directly with the WRAPIT when building the case study.**

PFMC

03/07/19 \*