

ECOSYSTEM WORKGROUP *SUPPLEMENTAL* REPORT ON FISHERY ECOSYSTEM  
PLAN INITIATIVE 2: COORDINATED ECOSYSTEM INDICATOR REVIEW FOR THE  
ANNUAL CALIFORNIA CURRENT ECOSYSTEM STATUS REPORT

The Ecosystem Workgroup continues to support the use of the California Current Ecosystem Status Report (Report) as an informational report, rather than as a report intended to provide specific quantitative information directed at particular management decisions. The informational quality of the Report is consistent with how ecosystem status reports have been treated in other areas of the country, such as for the North Pacific and Gulf of Mexico Fishery Management Councils. We also see the Report as a living document, meaning that we anticipate regular improvements to the Report, to account for changes to the Council's information needs and available scientific information. The Ecosystem Workgroup also recognizes that there may be particular Council decisions that could be better supported by ecosystem information that might be more specific or detailed than information developed for an annual information report.

Beyond the Report, ecosystem indicators could be used in many types of analyses that support Council decision-making. Many analyses – from stock assessments to five-year reviews of essential fish habitat (EFH) and catch share programs – could benefit from the use of indicators and other analyses of ecosystem information. We recommend the Council and its advisors take a two-step approach to considering how indicators might connect to particular decisions, or goals and objectives, or how they might be used to assess the potential effects of proposed Council actions. It is not reasonable to expect that all of the indicators in the Report can be fine-tuned at the same time, nor can all linkages to management decisions be identified at the same time. We also expect that fine-tuning the indicators will continue in an iterative process over time. To both fine-tune the Report's indicators on a reasonable schedule and to better connect indicators to other Council decisions, we recommend proceeding with this Fishery Ecosystem Plan (FEP) initiative through a two-step process: (1) a short-term review of the indicators in the present Report for any needed revisions or supplements; and (2) an annual science-and-policy process to develop new indicators or analyses by focusing on particular questions in particular years.

*Short-Term Process for Report Review:* The Ecosystem Workgroup understands that the Council may next consider this initiative in June or September 2016. Prior to that next meeting, the Ecosystem Workgroup recommends that the Council's advisory bodies review the 2016 ecosystem status report, Agenda Item D.2.a, Ecosystem Workgroup Report, and if possible, the recorded webinars provided as background material for this initiative (<http://www.pcouncil.org/ecosystem-based-management/coordinated-ecosystem-indicator-review-initiative/>). We recommend that advisory bodies consider whether the Report provides ecosystem information to help meet the goals, objectives, and key decisions under their fishery management plans. We also specifically ask:

- Salmon and groundfish advisory bodies -- does this year's report provide information that helps you address upcoming decisions related to your species? Are there upcoming salmon or groundfish decisions that could benefit from this report's information, or that could benefit from some additional ecosystem information?

- Highly Migratory Species (HMS) and Coastal Pelagic Species (CPS) advisory bodies -- should the Integrated Ecosystem Assessment (IEA) scientists work with these particular advisory bodies this year to develop appropriate indicators? We understand that the HMS management agenda is particularly full this year, which might suggest a stronger focus on developing CPS indicators this year, with HMS indicators developed in a future year.
- What does the Habitat Committee have to say about the indicators they've seen, and how might those potential indicators support their work and the Council's work on habitat issues? Are there issues that the Habitat Committee would like to see addressed in future reports, and if so, can those be developed on a timeline that would be useful to future Council decisions? For example, are there essential fish habitat update processes that could benefit from adding habitat indicators to the Report?
- Scientific and Statistical Committee (SSC) – Are the ecosystem status reports helping us address questions raised in the Research and Data Needs document? Would the SSC be willing to host periodic reviews of the science supporting the indicators, such as the review held in December 2014? Would the SSC support the inclusion of a “Research Recommendations” section in the Report or its supplemental materials, per the Ecosystem Workgroup’s suggestion in Agenda Item D.1.a, Supplemental Ecosystem Workgroup Report.

*Focal Topics for Future Ecosystem Analyses:* At its September 2015 meeting, the Council asked that the Science Centers look into incorporating ecosystem information into the sablefish stock assessment as a pilot project that might help support future efforts to bring that sort of information into other stock assessments. In this year’s Salmon Technical Team Preseason Report 1, they expressed concerns that some of their abundance forecasts may prove to be optimistic, based on the apparent continuation of unproductive ocean conditions illustrated in the ecosystem status report. These examples of using ecosystem indicators and data to inform particular Council decisions, like the decision to use sea surface temperature in the sardine control rules, have evolved in the Council process over time.

We suggest that the Council and IEA team consider an annual process to improve or supplement specific sections of the Report and analyses for decision-making beyond the Report. We see this process as coupled with SSC review of the scientific information underpinning revisions to the Report or analyses. The Council, its advisory bodies, and the IEA team could together choose a new focal topic each year, depending on the Council’s upcoming decision-making needs, and data and staff availability. For example, if the Council decides to pursue the ecosystem initiative on climate shift and change, the focal topic might include revisions to the Report’s physical oceanographic indicators that address the climate initiative’s priorities. Upcoming Council decisions that could benefit from integration with the Report and improvements to the Report might include, but are not limited to:

- 2016 – Council is due to review and update CPS EFH designation, which is generally temperature-related, rather than at fixed locations. If the IEA team were to focus on developing ecosystem information to support CPS habitat description and designation, that might also generate improvements to the ecosystem status report’s CPS indicators.

- 2016 – The IEA team is developing a dynamic ocean management model to forecast spatial distribution of swordfish, sea turtles, and other highly migratory and protected species (EcoCast). Could this concept inform Council decisions on HMS exempted fishing permits or for other Council decision-making needs?
- 2016-2017 – Council to begin 5-year review of groundfish trawl rationalization program: could the IEA team focus on improvements to the Human Activities and Human Dimensions sections of the ecosystem status report in ways that support this review? For example, are the community vulnerability analyses adequate to inform the program review? Does the Council need other ecosystem analyses outside of the ecosystem status report to aid that review? Are there other social science information needs related to the rationalization program that could also help the Council develop its groundfish specifications and management measures?
- 2017 – The Report does not now include much information on recreational fisheries. During a year like 2017, when the Council may not have a major obligatory focal topic, the IEA Team could work with the Council and its advisory bodies to develop a more rigorous approach to incorporating the importance of recreational fisheries into indicators in the Report.
- 2018 – Council to update salmon EFH: could the IEA team focus on improvements to habitat indicators in order to better support the salmon EFH review? Does the report provide enough information about freshwater salmon habitat to serve as a starting point for salmon EFH review? Is that information necessary in the ecosystem status report, or could it be provided elsewhere?
- 2018 – Council to begin review of FEP: could the IEA team develop risk analyses or management strategy evaluations to help update Chapters 4 and 5 of the FEP, which consider the interacting effects of fishing and non-fishing activities on target and non-target species, habitat, and fishing communities.

If the Council likes the idea of using this focal topic process to emphasize different priorities over time for both improving future ecosystem status reports and inputs to Council decision-making, we would report back at the Council's next discussion of this issue with suggestions on prioritizing focal topics.

PFMC  
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