

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON THE MITCHELL ACT
HATCHERY DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

The Council requested that the Economics Subcommittee of the Scientific and Statistical Committee (SSC) review the “Draft Environmental Impact Statement (DEIS) to Inform Columbia River Basin Hatchery Operations and the Funding of Mitchell Act Hatchery Programs” for the purpose of responding to two questions:

- Is the methodology describing economic impacts complete and proper, including the use of consistent metrics?
- Are there relevant sources of information omitted from socioeconomic analysis?

Due to the late release of this document, there was insufficient time to set up a Subcommittee meeting prior to this Council meeting. The Chair of the Economics Subcommittee prepared a response to the questions. However, given the size of the DEIS and the complexity of the issues, the SSC did not have adequate time to review the DEIS or the Chair’s response, which is attached to this statement for Council consideration (Appendix A).

Appendix A to Agenda Item F.4.b, Supplemental SSC Report on the Mitchell Act Hatchery Draft Environmental Impact Statement (DEIS)

The following comments are offered by the Chair of the SSC Economics Subcommittee regarding two questions posed by the Council regarding the “Draft Environmental Impact Statement to Inform Columbia River Basin Hatchery Operations and the Funding of Mitchell Act Hatchery Programs”:

- Is the methodology describing economic impacts complete and proper, including the use of consistent metrics?
- Are there relevant sources of information omitted from socioeconomic analysis?

The economic analysis in the DEIS includes estimates of regional economic impacts (income and jobs) associated with hatchery operations and commercial and recreational fisheries under each alternative. The DEIS also provides estimates of major costs and benefits associated with each alternative – “costs” meaning the costs associated with hatchery operations and “benefits” measured by the net economic value of commercial and recreational fisheries. Economic impacts and economic costs and benefits are both standard and reasonable ways of comparing the DEIS alternatives.

Comments regarding estimated costs of hatchery program, best management practices (BMPs) and new weir construction, and associated effects on income and jobs are as follows:

- The general approach used to estimate hatchery program costs is reasonable, given available data. Methods used to estimate economic impacts (income and jobs) are also reasonable.
- Further clarification is needed regarding the scope of the BMPs included in alternatives 2-5 and whether all of the BMPs included in those alternatives are also included in the cost estimates. Items such as updating water intake screens, water supply alarms, back-up power generators, National Pollutant Discharge Elimination System (NPDES)-compliant water treatment systems, and fixing water intake structures appear to be included among the BMPs. However, the role of fish passage is less clear. For instance, the DEIS notes that “Several implementation measures would be incorporated under one or more of the alternatives’ implementation scenarios...” and identifies “Update hatchery facilities to allow all salmon and steelhead of all ages to bypass or pass through hatchery-related structures” as one such measure (p 4-17). On the other hand, the Mitchell Act Fish Screens and Fishways Program – which is subject to a separate Congressional appropriation from the Mitchell Act Artificial Production Program – is identified in the DEIS as one of the activities “not considered to be within a reasonable range of funding potential or operational opportunities and that are not, therefore, envisioned within the alternatives in this DEIS” (p 1-13). Appendix J also appears to suggest that fish passage costs are not included in the DEIS – but for a different reason: “because it was determined that they would vary greatly depending on the specific site constraints, total flow requirements, facility size and location and related unforeseeable implementation issues” (DEIS Appendix J, p 8).

- In addition to clarifying which BMPs are included in the DEIS, methods used to derive cost estimates for those BMPs need to be more clearly documented. For instance, if fish passage is included, how were fish passage costs estimated? For BMPs for which the DEIS provides a range of per-unit cost estimates (e.g., \$200K-\$500K for updating water intake screen, \$30K-\$50K for back-up power generator, \$100K-\$1M for NPDES-compliant water treatment system, \$50K-\$1M for fixing water intake structure), which point estimates within these ranges were used to inform the cost estimates contained in the DEIS and why?
- Information regarding the derivation of total cost for new weirs (e.g., cost per weir) appears to be lacking in the DEIS.
- As acknowledged in the DEIS, costs associated with staffing BMPs (other than security staff) and staffing weirs were not estimated. Omission of these costs causes some under-estimation of job and income impacts for alternatives 2-5 relative to alternative 1. However, these omissions are not likely to be consequential relative to the magnitude of other costs included in the DEIS.

Comments regarding the analysis of commercial and recreational fishery effects are as follows. These comments pertain to the economic implications of the harvest projections provided in the DEIS. They do not pertain to the harvest projections themselves, which were derived from non-economic models and are therefore outside the scope of the economic questions posed by the Council to the SSC.

- The analysis of commercial fishery effects focuses on harvest, and the exvessel value, net economic value, and economic impacts (jobs and income) associated with that harvest. The analysis of recreational fishery effects also focuses on harvest, and the number of angler trips, trip expenditures, net economic value, and economic impacts (jobs and income) associated with that harvest. These are all reasonable parameters to use in analyzing economic effects.
- According to Appendix J of the DEIS, “The Research Group Mitchell Act DEIS Appendix Table B-2” provides the basis for almost all of the fishery effects (except harvest). Appendix I of the DEIS (“Draft Socioeconomics Resource Report Submitted by The Research Group to NMFS 2008”) is authored by The Research Group but does not contain a Table B-2. Additional documentation regarding Table B-2 and how it was derived is needed to evaluate the basis of the fisheries analyses.

In summary: Two methodologies are used in the DEIS to describe economic effects of the alternatives: regional economic impact analysis (jobs and income) and cost-benefit analysis (hatchery costs and net economic value to fisheries). Both are appropriate metrics for evaluating the alternatives. The general approach used to estimate hatchery program costs is reasonable, given available data. Methods used to estimate economic impacts (income and jobs) associated with hatchery operations are also reasonable. However, information (data sources, documentation of methods) is incomplete in the following areas: (1) exactly which BMPs are

included under alternatives 2-5, (2) methodologies used to estimate BMP costs, (3) methodology used to estimate cost of new weirs, and (4) data sources and methods used to evaluate many of the fishery effects. With regard to (4), the DEIS cites a Table B-2 (produced by The Research Group) as the basis for much of the fisheries analysis. However, review of the fisheries analysis was not possible, as Table B-2 is not contained in the DEIS.

PFMC
11/03/10