

SALMON TECHNICAL TEAM REPORT ON THE LOWER COLUMBIA RIVER NATURAL COHO HARVEST MATRIX

The Salmon Technical Team (STT) reviewed Agenda Item D.2.a, Review of Allowable Fishery Impacts to Lower Columbia River Natural Coho, and participated in a joint webinar with the Model Evaluation Workgroup (MEW) on September 9, 2014 where the work of the Lower Columbia Natural Coho Workgroup was discussed. This statement's comments are confined to the contents of Agenda Item D.2.a and not to technical details of the risk analysis. The risk analysis model was presented in October 2013 at the Methodology Review (though not fully attended by the STT or the Salmon Subcommittee of the Scientific and Statistical Committee [SSC] owing to the federal government furlough) and was reviewed by the full SSC at the November 2013 and April 2014 Council meetings.

There are several instances in the report where figures, tables, and text are not consistent with each other. For example, in Section 4.1 the text states that the high marine survival category (>0.4 percent) has not been achieved. However, Figure 10 has six values that exceed 0.3 percent, including four in the high category, exceeding 0.4 percent. It is now understood that the instances of high marine survival were achieved prior to 1974, and the data considered for this part of the analysis excludes data prior to 1974 (the data range in the Figure 10 caption was mislabeled). A second example of a text/figure mismatch concerns Figure 11, which depicts the stock-recruitment relationships for the Clackamas and Sandy Rivers. This figure contains many more years of data than the truncated (1993-2009) dataset that was used to estimate the parameters used in the risk analysis. It is our understanding that these and other mismatches will be corrected in the final report.

The first sentence of Section 5.2.1 states that "Risks are relatively insensitive to fishing within the 10 to 30 percent range of exploitation under consideration for LCN coho for all but the smaller, less productive populations evaluated." While this may be valid when evaluating median risk levels (Figure 16), this is not the case for the Sandy River, which shows a rapid acceleration in risk with increasing exploitation rates below 30 percent. This is noteworthy because the Sandy population is one of the larger populations in the Evolutionarily Significant Unit.

Very low or critical parental seeding levels are projected to never occur under the current matrix. Furthermore, Table 7 mentions several valid reasons for potentially dropping parental seeding level from the control rule. However, an unprecedented stock collapse may occur in the future, and having some provision for extremely low seeding levels could serve as a backstop to authorizing excessive fishing on a very depressed natural population. For the set of control rules presented in Agenda Item D.2.a and Supplemental Attachment 2, most do not include parental seeding levels as part of the matrix. The STT recognizes the value of including parental seeding levels during periods of poor productivity for a risk-averse approach, but acknowledges that the relationship between spawners and recruitment is weak. Consideration should be given to providing a range of alternatives for public review that includes control rules with seeding levels as well as those based on only marine survival.