

Salmon Methodology Review

Washington Department of Fish and Wildlife has stated that it is their intent to put more mark-selective fisheries on the water. As prudent managers, we need to finish the discussion on what constitutes low intensity or low levels of mark-selective fisheries that the SSC and STT have alluded to in their reports at the November 2008 Council meeting.

- What levels of exploitation does the SSC's "provisional" low intensity threshold for marked fish translate into for the associated populations of unmarked fish?
- Where are we relative to this threshold for the coho and Chinook mark-selective fisheries that are already on the water?

The Tribes are very concerned as to whether the FRAM model calculates the information necessary to monitor the impact or intensity levels of mark-selective fisheries. Our models are constructed to monitor impacts to natural fish (unmarked) stocks by using CWT hatchery stocks (marked) as surrogates for the natural stocks. This system was founded upon the assumptions that fishing mortality levels are the same for natural stocks as for hatchery stocks and that a consistent ratio is maintained between marked and unmarked fish of the same stock; but as mark selective fisheries increase these assumptions break down. Fishery impacts to natural stocks become based upon unobservable release mortality while the ratios of marked to unmarked fish diverge as selective fisheries increase.

The SSC has said that under low intensity mark selective fisheries the modeling errors introduced could be tolerated. The SSC's threshold for an acceptable level of mark selective fisheries was expressed as the exploitation rates exerted by mark-selective fisheries on marked fish stocks.

The STT and SSC need to be tasked with providing the Council with their recommendations on what metric should be utilized to monitor the impact or intensity levels of mark-selective fisheries.

If these recommendations are for a metric currently not provided to the Council within STT reports of modeling output, then the appropriate calculations need to be made along with modifications of reports to include these metrics. The Tribes feel the monitoring of these impacts and intensity levels should also incorporate data collected in the field. Completion of this work is essential, if the Council is to continue to fulfill its obligation to constrain fishery impacts to sustainable levels on stocks of concern.