

Nez Perce

TRIBAL EXECUTIVE COMMITTEE

P.O. BOX 305 • LAPWAI, IDAHO 83540 • (208) 843-2253

January 17, 2006

Mr. Don Kowal
Executive Secretary,
Pacific Salmon Commission
600-1155 Robson Street
Vancouver, BC V6E 1B5

RE: Report of the Expert Panel on the future of the Coded Wire
Tag Recovery Program for Pacific Salmon.

Dear Mr. Kowal:

On behalf of the Nez Perce Tribe, I want to thank the members of the Expert Panel for their report. Our Tribe support the Report's Peer Reviewed conclusions and recommendations regarding the future of the coded wire (CWT) tag recovery program for pacific salmon.

We recommend that the Pacific Salmon Commission, along with the participating management agencies of the Pacific Salmon Treaty (PST) process, develop an implementation plan by the end of this current meeting cycle for the Expert Panel Report's Peer Reviewed recommendations, especially the creation of a funding strategy for the grand experiment. We view this implementation plan as a critical step in protecting and conserving our shared salmon resource. It will help ensure the protection of the CWT recovery program as an effective and efficient monitoring and evaluation tool for harvest management programs coastwide, and it is a crucial step in protecting the hundreds of millions of dollars invested in salmon recovery.

The need for this Expert Panel Report regarding the CWT recovery program arose from the unilateral implementation of a mass marking and mark selective fishing program for hatchery produced Chinook and Coho salmon. These programs have since been federalized through a legislative rider on federal appropriations bills, without benefit of Congressional hearings or research into the real costs of mass marking and mark selective fishing. The unilateral implementation of a mass marking and mark selective fishing program for hatchery Chinook and Coho salmon puts salmon restoration programs and monetary investments in these programs at risk. Indian Tribes, the State of Alaska, and Canada have made

their views known on this issue for several years.

The PST Memorandum of Understanding (MOU) requires the United States and Canada to, among other things, "maintain a coded wire tag and recapture program designed to provide statistically reliable data for stock assessment and fishery evaluation". The Pacific Salmon Commission (PSC), the body responsible for implementing the PST, has recognized that selective fisheries for marked hatchery Chinook and Coho salmon can impact the coastwide CWT program. The Nez Perce Tribe, several states along with other federal agencies have invested an extensive amount of money and effort into the various components of the CWT program. It is evident that, despite some shortcomings of the system, the current system is the only available means of monitoring and evaluating the harvest management annexes of the PST. It is also obvious that the unilateral implementation of mass marking and mark selective fishing programs undermines the continued viability of this management tool.

The recognition of the inherent and costly problems of utilizing the adipose fin clip as a visual mark for mark selective fishing for hatchery produced salmon is a concern that has not just been recently identified; technical concerns and issues regarding the impact of clipping the adipose fin as a visual marker for mark selective fishing were identified as a critical issue nearly fifteen years ago:

The Chinook Technical Committee (CTC) discussed the proposal and is strongly opposed to the use of adipose clips to mass mark hatchery fish. This practice would render the CWT program nearly useless as a management tool. (CTC 1991)

Since then, we have learned that the costs and problems associated with the unilateral implementation of mass marking and mark selective fishing, especially for Chinook salmon stocks, are worse than those predicted by the CTC in 1991.

COMMENTS REGARDING SPECIFIC FINDINGS AND RECOMMENDATIONS

The Nez Perce Tribe agree that, as stated in the report, the only tools currently available for estimating age and fishery specific exploitation rates on individual stocks are through the use of CWTs. As stated clearly in Finding 1: "There is no obvious viable short term alternative to the CWT system that could provide that data required for cohort analysis and implementation of PST management regimes for Chinook and Coho salmon".

Regarding problems with the existing tag recovery programs, we support most of the Expert Panel's findings. In addition, with regard to Finding 5, the Nez Perce Tribe is only one of the parties involved in the PSC process that have verified the assumptions of using a hatchery indicator tag program (Priest

Rapids Hatchery) to represent a natural stock component (Upriver Bright, URB Chinook). All of the parties now have a time series of replicate tag groups from the natural component of Hanford Reach fall Chinook. The results indicate that the hatchery and natural groups have similar patterns of exploitation.

Regarding the implementation of mark selective fisheries on Chinook, the Nez Perce Tribe are not optimistic about the implementation of mark selective fisheries as a tool to protect stocks of concern. The Expert Panel's Report appears to support these concerns. There are a number of unknowns involved with mark selective fisheries. However optimistic the proponents of these harvest management tools may be on these unknowns, we remain unconvinced of the practical implementation of these types of fisheries. I want to emphasize that our Tribe have long used selective fisheries, such as time and area restrictions, gear restrictions and voluntary fishery closures as conservation measures to protect weak stocks and we will continue to use such effective tools. In contrast, we view the proposed mark selective fisheries simply as a tool to target hatchery produced fish, and therefore support status quo hatchery production practices, not conservation.

The primary issue of concern is maintaining the viability of the CWT program for its multiple purposes, including conservation. Mark selective fisheries are likely to bias the exploitation rates that are derived from the CWT recoveries. Due to intensive efforts directed to marked stocks, the unmarked recoveries estimated in these models are inaccurate and biased low. In a workshop jointly held by the Washington Department of Fish & Wildlife (WDFW) and the Columbia River Tribes in October of 1999, it was pointed out:

"Base Period Exploitation Rates (BPER's) are estimated from CWT data collected under conditions where all legal fish brought to the vessel are assumed to be retained. A fish was encountered only once; when it was caught, it was removed from the population. Under marked selective fisheries, an unmarked fish is supposed to be released. Some of the unmarked fish will die, others survive and will become susceptible to recapture again. When discrete equations are used to model impacts of mark selective fisheries on unmarked fish, this potential for multiple recapture during a model time period is ignored. Drop off and release mortality are underestimated and exploitation rates are biased low as a result. The likelihood of recapture will increase the longer the time period represented in discrete models (the time strata commonly modeled is monthly for Coho, quarterly or yearly for Chinook). The higher the exploitation rate, the greater the bias."

The Selective Fishery Evaluation Committee's Analytical Group

(SFCEAWG), established by the PSC, has investigated several methods (SFEC 2002) to address these biases and develop estimates of harvest impacts that are comparable to the CWT system. Although a couple of theoretical approaches have been outlined, in reality these systems may not prove to be practical (JCDAW 2003). This has been reiterated in the report of the expert panel in Findings 7, 8 and 10, where practical limitations of the Double Index Tag (DIT) program are discussed.

An issue that remains unresolved by the SFEC is correcting for multiple encounter bias. Simulations performed by the Columbia River Inter-Tribal Fish Commission (CRITFC) staff and others (Lawson and Sampson 1996, Zhou 2002), show that there are a higher incidence of unmarked mortalities than the management models predict. These estimates are directly related to the duration of the marked selective fisheries. In addition, the impacts increase non-linearly when unmarked stocks are at critically low abundances (an issue that is pertinent to some of the Snake River stocks).

While a number of technologies are being developed as potential replacements for the CWT system, it is premature to assume that the coastwide sampling system for these technologies can be implemented in the same manner as for the CWT system. While Findings 18 and 19 suggest that the new technologies show potential in identifying stocks, we believe substantial research needs to be conducted before we proceed down that route. It is unclear from Findings 12 through 16 that technologies such as allozymes, micro-satellite markers or SNP's in Genetic Stock Identification (GSI) techniques have numerous logistical limitations and cannot entirely replace the CWT system.

In addition as pointed out in Finding 12: "Although such combination of technologies may be theoretically possible, their combined use could have substantial increased costs and would require a degree of interagency coordination and collaboration that exceeds that which was necessary to develop the CWT system". The practical limitations imposed by the costs and coordination between agencies implementing these new technologies may be extremely difficult to overcome and we think we should be extremely cautious before disregarding the CWT system that is currently in place.

Our Tribe believes that the region must carefully consider how the GSI technology will fit into current management issues. At the very least, the PSC should plan to work on GSI technologies in very close coordination with our current CWT system. In particular, we are not sure how Recommendations 12, 13 and 14 would be implemented. The first step is to work out issues of sampling, coordination and assignment errors in these GSI techniques as stated in Findings 12 through 16.

In addition, with regards to Recommendation 7 and Table 4, our Tribe is unclear as to what the appropriate methods for an intended mark selective fishery is supposed to convey, other than the need to develop more intensive sampling methodologies when mark selective fisheries are prosecuted by an agency. It is clear from Zhou (2002), JCDAW (2003) and Findings 7 through 10 that mark selective fisheries (MSF) will result in a loss in precision as far as exploitation rates are concerned, regardless of any method identified. Our Tribe continues to hope that the agencies involved will be cautious about implementing an untested method of fishing.

Thus we strongly agree with Recommendation 6: "To provide greater assurances that stock conservation objectives will be achieved, future fishery management regimes should compensate for increased uncertainty of fishery impacts on unmarked natural stocks due to degradation of the CWT system and non-landed mortality impacts related to MM and MSF's". The Nez Perce Tribe believe the MSF proposing agency that causes this increased uncertainty should bear the burden and incur the largest reduction in the overall exploitation rate in order to guarantee that the conservation objectives are met for that stock.

As far as direction the PSC should take regarding this report, we strongly support Recommendation 8: "The PSC should explore the interest of fishery agencies in participating in a Grand Experiment to improve the basis for harvest management decisions coastwide through an intensive program conducted over a short period of time". If interest is sufficient, the various PSC technical committees (Chinook, Coho and Selective Fishery Evaluation) could prepare the specifications of the experiment, including addressing the feasibility and the experimental design. Implementation and funding regarding this experiment could be made available through the Northern and Southern Funds as well as from external sources such as the National Science Foundation (NSF) or the National Research Council (NRC), and other private sources. Finally, if such an undertaking did proceed, oversight on analyzing these results should rest with those specific technical committees.

Finally, CRITFC staff and our Tribe is already working on issues related to Recommendation 4, which included making a presentation at the Western Division AFS meeting in San Diego, CA in 2003. We are also working with CRITFC staff on issues related to Recommendation 5.

In conclusion, we want to reiterate that experimental results on mark selective fishing on Chinook and Coho, to date, have given a very wide range of results. It is premature to assume that all the findings and recommendations will be addressed soon, and it is premature to assume that mark selective fisheries are indeed the appropriate management tool for

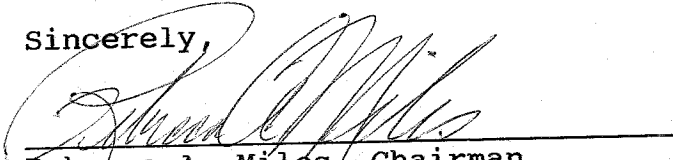
rebuilding depressed stocks. Again, it is important to remember that mark selective fisheries were proposed and are now being used not as a tool to conserve weak and rebuilding salmon stocks, but merely as a tool that would allow hatchery fish to be caught - and allow hatchery production programs to remain unchanged, even though an obvious need exists to change hatchery production programs in order to aid in the restoration and rebuilding of wild salmon stocks.

Mark Selective Fisheries should not be implemented in the future until all of the issues identified in the peer reviewed Expert Panel Report are resolved through the agreement of the Tribes, States and the Federal Fishery Agencies. Unfortunately we again sense that some parties are rushing into the utilization of mark selective fisheries without taking the time for serious consideration of the possible negative effects. More effort should be paid to the other components for recovery of depressed or endangered populations, namely through the use of supplementation programs, habitat conservation and restoration programs, and hydropower system and flood control modifications; these efforts which would address the underlying problems limiting salmon production and productivity in a much better way than mark selective fisheries.

The Nez Perce Tribe looks forward to working with you, the members of the PSC and with the other Tribes, States and Federal Fishery management agencies to develop an implementation plan for the Recommendations provided by the Expert Panel Report.

Thank you.

Sincerely,



Rebecca A. Miles, Chairman
Nez Perce Tribal Executive
Committee

Attachment

Attachment (Letter to Mr. Don Kowal)

"REFERENCES"

CCT. 1991. Letter from CTC Co-Chairs to the Chair and Vice Chair of the Pacific Salmon Commission regarding the de-sequestration of the adipose fin clip as a marker for the coded wire tag. See Pacific Salmon Commission's Report of the Expert Panel on the future on the Coded Wire Tag Recovery Program for Pacific Salmon. November 2005.

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Lawson, P. and Sampson, D. 1996. Gear-Related Mortality in selective fisheries for Ocean Salmon. North American Journal of Fisheries Management: 512-520

SFCE. 2002 Investigation of methods to estimate mortalities of unmarked salmon in mark selective fisheries through the use of double index tag groups. TCSFEC (02)-1. pp 87.

Zhou, 2002. Uncertainties in estimating fishing mortality in unmarked salmon in mark selective fisheries using double index tagging. North American Journal of Fisheries Management 22: 480-493.