

**JIMMYCOMELATEY CREEK-LOWER SEQUIM BAY ESTUARY
RESTORATION PROJECT**

ADDENDUM TO THE PHASE I MONITORING PLAN:

SUMMER CHUM MONITORING

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EXECUTIVE SUMMARY

This addendum to the existing Jimmycomelately Creek Realignment Monitoring Plan (Shreffler 2001) describes one additional performance criteria for evaluating the success of summer chum recovery elements of the Jimmycomelately Creek-Lower Sequim Bay Estuary Restoration Project.

The following additional performance criteria (#3) should be added to the two existing performance criteria in Section 3.3.4 Salmon Use:

3) After 10 years, summer chum abundance and productivity numbers for JCL should be on a clear trajectory toward meeting the PNPTC/WDFW planning targets of 520 spawners (productivity =1.0) and 330 spawners (productivity =1.6).

Rationale for Adding this Performance Criterion

At the time the Jimmycomelately Creek Realignment Monitoring Plan (Shreffler 2001) was completed, summer chum recovery targets for JCL had not been determined. It is now appropriate to use the JCL-specific escapement and productivity numbers listed below as “benchmarks” to evaluate the success of habitat restoration actions in recovering JCL summer chum. These target numbers are for “natural-origin-recruits in their native watersheds” and do not include hatchery supplementation. The interim targets listed here are expected to provide, on average, sufficient surplus for harvest. These targets are considered “interim,” because they will be revised as more information becomes available.

For summer chum salmon recovery in Jimmycomelately Creek, the Point No Point Treaty Council (PNPTC) and WDFW have prepared the following interim targets (May 2003):

JIMMYCOMELATELY SUMMER CHUM ESCAPEMENT PLANNING TARGETS IN COMPARISON WITH MEAN ESCAPEMENT OVER THE LAST FIFTEEN YEARS

Escapement Planning Targets with Productivity in Parentheses		Mean Escapement (1991-2002)
520 (1.0)	330 (1.6)	159*

Escapement is the spawning escapement, or the number of adults that escape fisheries; *Productivity* is a measure of survival, expressed here as recruits produced per spawner. *Recruits* are defined as the number of adult returns prior to fisheries interceptions.

*Note: Includes supplemental hatchery production

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There is a concern that these interim targets for Jimmycomelately Creek summer chum may represent a moderate risk of extinction using the methods of Allendorf et. al (1997), which specify that a population is at moderate risk of extinction if the total escapement population per generation is less than 2,500 or if the effective population size is less than 500. However, the Allendorf et. al assumptions were theoretical, and a population may be viable at sizes slightly below those the authors predicted. Additionally, these interim targets are based upon observed escapements during the 1970's and early 1980's. It is entirely possible that the population was already in decline by that time, as significant habitat alteration to the creek began in the late 1800's. Finally, it may be that the Jimmycomelately Creek stock is part of a larger population that included the Dungeness River and/or Discovery Bay stocks.

Literature Cited

- Allendorf, F.W., D. Bayles, D.L. Bottom, K.P. Currens, C.A Frissell, D. Hankin, J.A. Lichatowich, W. Nehlson, P.C. Trotter, and T.H. Williams. 1997. Prioritizing Pacific salmon stocks for conservation. *Conservation Biology*. 11:140-152.
- Point No Point Treaty Tribes and Washington Department of Fish and Wildlife. 2003. *Summer Chum Salmon Conservation Initiative: Supplemental Report No. 5, Interim Recovery Goals*. May 2003 (DRAFT).