

Presentation Title: Spring Chinook Salmon Supplementation in the Yakima River Basin – 25-year Summary

Abstract: After years of planning and design, the Levi George Spring Chinook Salmon Supplementation and Research Facility in Cle Elum, WA (CESRF) was constructed in 1996. This program is a supplementation effort targeting the upper Yakima River population and is designed to test whether artificial propagation can be used to increase natural production and harvest opportunities while limiting ecological and genetic impacts. It is an integrated hatchery program because only natural-origin brood-stock are used and returning hatchery-origin adults are allowed to spawn in the wild. The program employs “best practice” hatchery management principles including reduced pond densities, strict disease management protocols, random brood-stock selection, and factorial mating to maximize effective population size. Fish are reared at the central facility, but released from three acclimation sites located near the central facility at: Easton approximately 25km upstream of the central facility, Clark Flat about 25km downstream of the central facility, and Jack Creek about 12km upstream from the Teanaway River’s confluence with the Yakima River. The CESRF collected its first spring Chinook brood-stock in 1997, released its first fish in 1999, and age-4 adults have been returning since 2001. The first generation of offspring of CESRF and wild fish spawning in the wild returned as adults in 2005. The program also includes a small segregated component as a hatchery control, and uses the adjacent, un-supplemented Naches River population as an environmental and wild control system. This talk summarizes results from 25 years of supplementation.