

**Title:** “Fish Health of Wild and Hatchery Smolts Observed in the Yakima River”

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A review of diagnostic and monitoring activities performed by the Olympia Fish Health Center (OFHC) and WDFW will be presented. Comparisons and contrasts will be explored on testing results of out-migrating smolts at Roza Dam and at the Chandler Trap.

The investigators have consistently tested spawning adults at the CESRF for reportable pathogens and especially focused on *Renibacterium salmoninarum* levels of the various populations using Enzyme-linked Immunoassay (ELISA) and a risk assessment developed by OFHC. This qualitative risk assessment is used to determine relative risk of adult females transferring the pathogen (and Bacterial Kidney Disease) to resultant progeny. Further testing is done on yearlings prior to release of smolts at the acclimation sites. Test results of brood year 2002 smolts (release year 2004) indicate an extremely low level of *Renibacterium salmoninarum* which consistently follows at testing after releases. Further sampling taken at Roza Dam compared pathogen profiles between hatchery and wild smolts.

These tests indicate that the hatchery reared smolts from this supplementation effort have a lower level of the pathogen than wild smolts which probably indicates that the supplementation efforts are not causing harmful disease impacts to wild populations.

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