

2006 Yakima River Coho Re-Introduction Feasibility Study

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Smolts were released volitionally on April 3, 2006. Approximately 724,000 coho smolts were released from the four acclimation sites Boone and Holmes in the Upper Yakima River and Lost Creek and Stiles in the Naches River. Approximately, 20,000 coho were pit tagged to monitor survival. The 2006 acclimation year also marked the return of an in basin vs. out of basin experimental design. In addition to smolt releases, summer parr were released into acclimation sites to assess over winter survival.

Overall, survival was excellent. Predation at Boone Pond was extremely high for the 2nd year. This caused survival estimates to plummet. Boone pond survival was only 04%. Survival estimates were done using pond detectors at Holmes, Stiles, and Lost Creek. The combined survival from Lost Creek for Eagle Creek and Yakima Stocks was estimated to be 64% (EC 62% and YN 68%). Stiles pond was very good as well with a 38% survival from Pond to McNary Dam (EC 38% and YN 39%) Holmes Pond in the Upper Yakima River had a combined 22% survival (EC 18% and YN 25%). The total estimated passage out of the YakimaBasin was 240,000 hatchery coho. Parr survival has increased significantly from the original releases detected in 2005. Lost Creek had the largest increase from 6% in 2005 to 28% in 2006. Of the original 1,025 put into the pond 248 were detected at the pond outlet and 81% of those survived to McNary Dam. The Hanson ponds and direct river release showed only modest decreases from 5.4 % and 3.7% in 2005 to 1.76% and 3% respectively. This decrease was most likely due to some environmental condition.

The 2006 Yakima River Coho escapement was 4,299 adults, an increase from 2,850 coho in 2005. This included an estimated 1,562 natural origin adults. The smolt to adult (SAR) rates for the Hatchery Origin Returns (HOR) was 1.3% and the Natural Origin Returns (NOR) was 5.3%. The Hatchery origin SAR was abit smaller than 2005 but the natural origin coho increased from 2.6% in 2005.

The Naches River was again a significant producer of coho redds (44) and the Upper Yakima River continued to climb from 3 in 2003, 33 in 2004 to 57 in 2005 to an estimated 76 in 2006. This included over 50 redds in the Holmes Cottonwood Gallery. In addition, Cowiche Creek had nearly 30 redds found by WDFW surveyors.