**Yakima River adult steelhead life history characteristics**

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As part of the Mid Columbia DPS, summer-run steelhead in the Yakima River were listed as threatened under the Endangered Species Act in 1999. NOAA's current viability assessments and recent stock status reviews conclude that none of the four Yakima steelhead populations currently meet the standards of viability. Throughout these review processes, critical data gaps and uncertainties have been identified for several of the VSP metrics across all four populations. A three year radio telemetry project was implemented in 2012 to address the short term and long term VSP data needs for an improved understanding of Yakima River Steelhead population dynamics and life history characteristics. Enumeration of adult steelhead at Prosser Dam (lower River) provide adult escapement for the run at large (entire Yakima MPG) but no reliable spawner abundance estimates exist at the population scale. The objectives of the study are to provide three years of direct spawner escapement estimates for each population, test and validate long term methods for generating annual spawner abundances for years beyond the telemetry study, address the spatial distribution uncertainties for both the Naches and Upper Yakima steelhead populations, and collect as much pertinent and valuable life history information as possible. Here we present preliminary findings for population abundance estimates, survival, run timing, spawn timing, and newly acquired spawning information for several Yakima River mainstem and tributary locations.