

**Title:**

The Effect of Flow Alteration on the Naches River *Oncorhynchus mykiss*.

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**Summary of Presentation:**

The US Bureau of Reclamation recently purchased a water right in the Naches River, WA. The USBR will use this water to maintain discharges in the "Wapatox reach" at approximately 300 cfs greater than discharges observed in recent years. In this presentation we will describe our research design including the population estimate techniques to be used, Multispectral Imaging (MIS) techniques, and the Geographical Information System to be constructed. In addition to the research design presentation, we will show some baseline data that was collected in 12/02. These data on *Oncorhynchus mykiss* densities are for the treatment (Wapatox) reach and the reference (immediately downstream of the Wapatox reach). We will show that the density of *O. mykiss* in the treatment reach is lower than the density in the reference reach. In addition, the densities of *O. mykiss* were highest in slow habitats with more cover. Finally, invertebrate dry mass obtained in dusk drift samples was much higher in secondary channels compared to mainstem habitats.