BUILDING A LEGACY: WHITE CREEK LARGE WOODY DEBRIS PROJECT

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ABSTRACT: White Creek, a 3rd order tributary of the Klickitat River in south-central Washington State, provides critical spawning and rearing habitat for ESA-listed Middle Columbia River steelhead. The White Creek watershed is 138 square miles in area with an average elevation between 2500 and 3300 feet. Average annual precipitation is 20-29 inches, with roughly half falling as snow. Current stream habitat conditions in White Creek reflect past riparian timber harvest, road construction, and livestock grazing throughout the watershed. Stream reaches show signs of bed armoring and have a simplified morphology with low pool frequencies, rectangular, canal-like cross sections, and an absence of large woody debris (LWD).

The White Creek Large Woody Debris Project addresses limiting habitat features identified for this top geographic priority reach by the Klickitat Subbasin Plan and Klickitat Lead Entity Salmon Recovery Strategy. Project actions aim to restore channel complexity by constructing multiple large woody debris jams along roughly 4 miles of White and Brush creeks. These treatments will enhance bed structure, contribute to pool formation (rearing and holding habitat) and increase sediment sorting (spawning habitat) for steelhead. The placed Ponderosa pine and Douglas-fir trees were a mix of logs and rootwads. 363 trees were placed via 169 individual heavy lifts with a Boeing Chinook helicopter over two days (14 hours flight time) in October 2017.

The presentation will provide an overview of the project background, implementation, monitoring and lessons learned. The activities described were funded by the Bonneville Power Administration's (BPA) Yakima-Klickitat Fisheries Project (YKFP) with in-kind donations of wood provided by the Yakama Nation.