

NATIVE SPECIES HABITAT RESTORATION IN THE UPPER KLAMATH BASIN, OREGON^{AFS}

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Aquatic ecosystems in the Upper Klamath Basin have been significantly altered by historical and contemporary land use practices. Modified watershed hydrology, riparian communities, channel morphology, and aquatic habitat conditions have profoundly impacted the native fish community in the Upper Klamath Basin, including bull trout, Lost River and shortnose suckers, and Klamath redband trout. Preliminary efforts to restore riparian and stream habitats in the Sprague River watershed near Beatty, Oregon, offer promising opportunities to rehabilitate considerably degraded aquatic environments. Target project streams including multiple spring creeks and the mainstem Sprague and Sycan rivers, were prioritized in the *Master Plan for the Restoration of the Sycan and Sprague Rivers near Beatty, Oregon*, a guidance document for focusing restoration efforts in the middle Sprague River watershed. River Design Group is collaborating with local agencies and landowners to identify and achieve multiple land management and endangered species recovery goals through the application of passive and active restoration techniques. Restoration projects completed in 2004 included one spring creek and two off-channel pond complexes that provide important spawning and rearing habitat for the focus species. Techniques included channel reconstruction and passive techniques including artificial beaver dam construction for channel grade control. Final restoration design plans were completed in 2004 for a

2-mi section of the main Sprague River, which is scheduled for construction in 2005. Once completed, the reconstructed streams and off-channel habitats are expected to provide cold water refugia and improved spawning, rearing, and migratory corridor conditions for the focus sucker species, Klamath redband trout, and bull trout.