



**Photo 1: Looking downstream (June 2005), after decades of uncontrolled livestock use. Trampled banks created a over-widened channel with little to no sinuosity or channel complexity. At this point there was no documented use of native salmonids within the spring creek.**



**Photo 2: Looking downstream (July 2009) at the first phase of construction. Limited by HPA permit restrictions, all restoration activities were completed by hand. Though primitive looking, the increased channel complexity (added wood, riffle and pool habitat) brought impressive fish results. Years of double digit redd counts (for both spring chinook and summer steelhead) as well as overwinter rearing of their offspring.**

**With years of well documented fish response, permitting agencies relaxed their restrictions on "heavy handed" restoration techniques and allowed a more aggressive channel reconstruction design. These restoration techniques would fix some of the hydraulic problems not fixable under previous permit restrictions.**



**Photo 3: (August 2011) Looking downstream at different phases of construction.**



**Photo 4: (September 2011) Looking downstream following construction,. Note constructed pools and riffles within previous channel prism. Also note placement of native wetland sod, large woody debris, and containerized plants.**



**Photo 5: conducting topographic surveys with a total station.**



**Photo 6: Conducting defishing activities prior to construction.**



**Photo 7: Channel excavation and woody debris placement.**



**Photo 8: Use of all-terrain "slinger" to rapidly place fill to reconstruct streambanks.**



**Photo 9: Unloading custom-grown, native wetland sod for installation.**



**Photo 10: Planting one of 50,000 custom grown aquatic sedges (sedges propagated from site seed source).**



**Photo 11: Use of all-terrain "slinger" to place spawning gravel in constructed riffles.**



**Photo 12: Raking gravel to design elevations. Note placed wetland sod for instant bank stabilization, containerized plugs grown from Hancock Springs seed source.**



**Photo 13: Placing spanners with modified excavator boom.**



**Photo 14: Removing temporary fish exclusion weir that was installed prior to construction. Four Endangered spring Chinook immediately swam upstream into the newly restored reach.**



**Photo 14: Restored pool habitat following construction. Note abundance of wood placed below water surface. Chinook salmon were seen using this pool within 24 hours following construction.**



**Photo 15: Looking at middle reach of reconstructed channel. Note all new wetland sod, plugs, and narrow pool- riffle channel with backwater habitats.**



**Photo 16: Chinook using newly constructed pool, days after it was constructed.**

