

Channel Restoration in Moose Creek, Alaska

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Moose Creek is located near the town of Sutton, Alaska. The creek was re-routed at several locations in the early 1900's to facilitate construction of a railroad line for transporting coal. Channel alignment changes were made resulting in significant loss of in-stream aquatic habitat and floodplain connectivity. One of the most significant changes was that channel re-alignment caused the creek to scour a 10-foot high barrier waterfall near river mile 3. Salmon populations that were once abundant enough to feed the many mining camps and local people rapidly declined, however, remnant populations of Chinook, coho and chum salmon continued to exist below the falls. The Chickaloon Village Traditional Council lead the effort to reconstruct a natural river channel bypassing the waterfall, with restoration completed in 2005. The new channel was 1,850 linear feet long, and formed to reference conditions. Boulders, cross-vanes and log vanes were included in the construction to direct the thalweg, create pools, and floodplain connectivity was restored. Within days of project completion, Chinook salmon were passing the project area. With Phase I complete and with additional future phases, it is expected that salmon populations will significantly increase.

Note: This is an oral presentation and poster abstract.

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