

2006 Fisheries Restoration Project Summary – Lolo NF

State: Montana
National Forest/Ranger District: Lolo National Forest, Missoula Ranger District
Project Name: Rock Creek Woody Debris Jams

Project Purpose / Objectives:

The purpose of this project was to improve westslope cutthroat and bull trout habitat in Rock Creek by adding 10 large woody debris structures (clusters of dead trees in the stream) to the creek between Harry's Flat Campground and Hogback Cabin. In 2004, beetle outbreaks in the Rock Creek drainage caused hundreds of Douglas fir trees to die along the stream. Approximately 200 large (18 to 30-inch diameter) trees in campgrounds and designated dispersed camping sites were killed, and these were hazardous to campers. They had to be removed to make camping in these areas safe. Through this project, we used money generated from the sale of about $\frac{3}{4}$ of the trees in the camping areas to pay for equipment and operators to put $\frac{1}{4}$ of the trees in the stream. In all, approximately 50 of these large trees were put in Rock Creek, with their roots and limbs attached, to form woody debris jams (consisting of 4-6 trees per debris jam). These woody debris jams will provide important shade, hiding cover, and structure to the stream to benefit bull trout, westslope cutthroat trout, and other fish species in Rock Creek. Large woody debris jams are a critical habitat component that is limited due to the presence of the Rock Creek road along one side of the stream.



Excavator pushing tree over to place in creek.

Work Performed:

Work performed in this project included pushing trees with two large excavators, carrying the trees, suspended on both ends, to the stream, and carefully interlocking the trees with each other and live, standing trees on the streambank to provide stability during higher flows. All ground disturbance was rehabilitated, exposed soil areas were seeded in the campgrounds, and barriers were re-installed to prevent off-road travel.



Typical large woody debris structure

Expected Benefits:

This project will benefit westslope cutthroat and bull trout by adding high quality, complex habitat to the stream. Over time, we expect the trees that we put in the stream to move and re-adjust in response to flow patterns and additional wood floating down the stream. Some of the constructed debris jams will likely get bigger, while others will shift and may move downstream, where they will create new habitat. Overall, the project has incorporated much needed wood to Rock Creek – as stream that is limited in the number of large trees that naturally fall in because of the existing road.

Partners: Our partners are a critical part of the Lolo National Forest Fisheries Program. They help in various aspects of projects through contributed money, in-kind services, volunteer work during project implementation, monitoring, and public involvement. Without our partner relationships, many projects would not be accomplished. This project involved in-kind support from the Westslope Chapter of Trout Unlimited, as well as extensive involvement from local user groups in the conceptual design of the project. Thanks to these partners for their continued support!