

Shovel Creek Riparian Fence Project Final Report

Cooperator: **PacifiCorp**
Cooperative Agreement: **14-48-11333-8-J238**
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Abstract

The Shovel Creek Riparian Fence Project includes the design and construction of a livestock exclusion fence along both sides of Shovel Creek. Fences extend the existing riparian fencing at the mouth of the creek and tie into terrain features that form natural barriers to livestock movement. Fences were constructed during the spring and summer of 1999.

Introduction

The goal of this project is to protect and improve riparian vegetation and water quality in lower Shovel Creek basin through construction of livestock exclusion fencing. Shovel Creek is important fish and wildlife habitat and fencing will allow control of livestock grazing in the lower 2 miles of the creek. Expected long-term benefits include decreased erosion and sedimentation, increased riparian vegetation, lower stream temperatures and additional instream cover for fish.

The objective was to design and construct cattle exclusion fences along both sides of Shovel Creek. Fences are tied into terrain features that form natural barriers to livestock movement.

Study Area

Shovel Creek is an important tributary to the Klamath River, located approximately 2.5 miles upstream of Copco Lake in Siskiyou County, California (T. 48N, R. 3W, Sections 34 and 35). Negro Creek, a major tributary, flows into Shovel Creek approximately 0.7 miles upstream from the mouth. Shovel Creek begins in a steep canyon that later broadens as it passes through an irrigated meadow/pasture in the lower mile. Vegetation in the basin consists of mixed conifer, oak woodland, oak/mixed conifer/wedgeleaf ceanothus, wet/irrigated meadow, and riparian vegetation communities. The primary land use is livestock grazing with some timber harvest occurring on adjacent lands.

Fence Location: Fences were constructed on both the north and south sides of Shovel Creek on PacifiCorp property. The new fences tie into the existing pasture and riparian fences at the mouth of Shovel Creek. The fence on the south side of Shovel Creek runs along a moderate slope crossing Negro Creek. Due to steep and rocky slopes, a natural barrier is formed and negates the need to fence a 1,500-foot section southeast of Negro Creek. The second fence is on the north side of the creek and runs along the base of the canyon.

Methods and Materials

Fence Description: Two fence segments that total approximately 1.36 miles in length were built (Figure 1). Fences are 4-strand wire fence consisting of 3 upper strands of barbed wire and one bottom strand of smooth wire; 6-ft steel T-posts; corners consisting of rock crib or wood posts; 20-ft spacing between T-posts with a wire dancer inserted midway between T-posts; spacing between wires of 16, 10, 10, and 16 inches from top to bottom. Two wire gates were installed where the fences crossed existing roads.

Construction: Fences were constructed in 2 segments. Several potential contractors were contacted for fence construction which was initially scheduled to begin in the winter. CF&G was contacted but did not have a fencing crew that was available for the winter and travel distances made prison crew labor inefficient for this particular job. A local rancher was contracted to construct the fence.

Results and Discussion

Fences on both sides were completed by August 13, 1999. Although construction was scheduled to begin during the late winter, it was delayed due to poor site conditions (too wet) and because high flows prevented crossing the creek. Fence materials were moved onto the site by mid-April. The south segment was started in June but completion was delayed until August due to scheduling conflicts with the contractor's workforce. Other than scheduling delays, there were no problems with the fence construction.

No livestock were observed in the newly fenced riparian area during August of 1999. This area will be monitored (opportunistically) in the future to determine if livestock are finding a way into this basin. If this occurs, additional gap fencing may be constructed where needed.

Summary and Conclusions

The new riparian fences extend the existing riparian fence and allow control of livestock grazing in the lower 2 miles of Shovel Creek. The fenced area includes irrigated meadow and riparian vegetation communities formerly used for grazing. There are no plans to graze this area in the future unless some type of limited duration high intensity cattle grazing (flash grazing) will be helpful as a vegetation management tool. By excluding cattle from this area, there should be a reduction of livestock-related effects on water quality and riparian vegetation should be able to grow more rapidly, benefiting both fish and wildlife.