Document ID #P124929

1992-026-01

RIPARIAN FENCING AND WATER DEVELOPMENT PROJECTS

CONTRACT #40845

COMPLETION REPORT

Report Covers: December, 2008 – November 2011

United States Forest Service
Wallowa-Whitman National Forest
La Grande Ranger District
La Grande, Oregon

SUBMITTED BY: ARIC JOHNSON
RANGE MANAGEMENT SPECIALIST

January 18, 2012

Overview
This project included planning, design and implementation of riparian protection projects located on the La Grande Ranger District (LGRD) of the Wallowa-Whitman Nation Forest (WWNF). These actions individually and collectively address specific limiting factors for spring Chinook salmon in Catherine Creek and the Upper Grande Ronde watersheds. As such they provided direct and indirect benefits to improving survival of spring Chinook salmon.

The projects completed with this contract occurred on ten livestock grazing allotments administered by the LGRD. Grazing within the allotments is managed through the use of allotment management plans (AMPs) and term grazing permits. The AMPs, permits and specific Section 7 consultations identify strategies and responsibilities for permittes to follow and meet in the management of resources and ESA species within each allotment. Livestock are managed to protect fish bearing streams and the associated habitat through several methods including timing of use, herding, salt placement, off site water developments and fencing.

Purpose
This project was designed to improve livestock distribution away from perennial streams by providing alternative sources of water for livestock and through direct protection of streams though the construction of riparian exclosure or riparian management pastures.

Objectives
These projects helped to maintain and improve the high quality habitat and water quality that is present through further reduction of livestock use within the stream corridor. Preventing changes to this condition or allowing specific areas to accelerate recovery to meet this condition were made possible through implementation of these projects.

Partnerships
This project was a collaborative partnership between the WWNF, Grande Ronde Model Watershed (GRMW), Bonneville Power Administration (BPA) and numerous permittees on the LGRD.

Project Designs
The project included three categories of protection; off site water developments, riparian fencing and large wood material (LWM) placement. Off site water developments included spring development, pond/reservoir construction and one well with solar pump to a trough. Riparian fencing included direct corridor exclosure fencing of smaller riparian areas, indirect riparian pasture fencing and strategically placed drift fencing. LWM placement was completed in conjunction with riparian fencing and done with equipment and by hand.

<u>OFF SITE WATER DEVELOPMENTS</u>

Spring Developments

There were 17 spring developments installed on eight allotments. Each spring development included the placement of a collection box, plumbing the collected water to

a trough, placement of a trough and installation of an overflow back to the natural drainage. An exclosure fence was constructed around each seep to protect to the wetland associated with the seep and the associated plumbing.

Portugese Spring on the Starkey Allotment.

Exclosure fence example

Reservoirs

Six reservoirs were constructed to retain springtime runoff water in locations where available water had been lacking. The new reservoirs will allow for better distribution in areas farther from perennial streams. Each reservoir was constructed to include an overflow located on undisturbed soil. This will prevent overtopping of the dams during high water years and possible dam failure. Final reservoirs should hold up to 150,000 gallons of water for wildlife and livestock. All disturbed areas were seeded with native

seed and mulched with certified weed free straw to prevent soil erosion and introduction of invasive species.

Completed reservoir on the Starkey Allotment.

Reservoir post seeding and mulching on the Starkey Allotment.

Reservoir with intercepted spring supply on Sheep Ranch Allotment.

Well with Solar Pump

A 133 foot deep well was drilled on the Whitehorse Allotment to allow for placement of a solar powered pump to supply a stock trough. This system will replace a nearby trough located within the riparian area of Winter Canyon Creek. This trough was seasonal and was often dry in the later summer months.

Well Drilling on the Whitehorse Allotment.

FENCING

Fencing was constructed at eight locations to provide protection to streambanks and riparian vegetation by controlling livestock access to perennial streams. These areas were identified through past monitoring and observations as difficult to manage

locations where exclusion or drift fencing would be the most effective means to protect the resources.

Buck and Pole Fencing on the Catherine Creek Allotment.

Typical Let Down Fence

LARGE WOOD MATERIAL

Placement of LWM was completed on three sites to compliment exclosure fencing. Large wood provides streambank and small shrub protection from the effects of livestock grazing. Reducing streambank trampling and shrub utilization helps maintain water quality and reduce stream temperatures.

Typical Large Wood Material placement

MONITORING

Utilization/Implementation Monitoring

Implementation monitoring is used to determine compliance with Forest Plan and site specific resource management standards for each allotment. Monitoring is conducted on each allotment as often as possible, usually at least every other year. Some monitoring is completed each year as consultation mitigation. Utilization monitoring conducted on allotments where projects occurred did not show any areas of excess use.

Photo Points

Photo points are being used to compare changes over time near each project site in the areas benefiting from the improvement.

Effectiveness Monitoring

Effectiveness monitoring conducted over a larger span of time will determine if the improvements that have applied are able to help meet the resource objectives identified for the site. Effectiveness monitoring for this project will be completed in-kind with each allotments long term riparian monitoring. If there is no long term site available, observation of use by livestock at each improvement site and photopoints in the nearby riparian areas will be used to measure improvement.