## **EXP BIOP Dark Canyon Culvert Replacement Project**

Project No. 1992-026-01

Contract: 52986

**Completion Report** 

Period Covered: June 1, 2011-February 28, 2013

Completed by: Joe Platz

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

La Grande, OR February 1, 2013

BEFORE

Looking downstream at culvert





## **Dark Canyon Culvert Project**

This project replaced an undersized, juvenile steelhead passage barrier with a properly sized open arch culvert. This action re-opened 1.5 miles of juvenile steelhead rearing habitat.

Specific actions accomplished were:

Removed existing culvert.

Constructed a new open arch culvert with concrete footings and appropriate streambed substrate.

Rehabilitated and defined a stream side dispersed recreation site using 25 boulders and several logs.

Rehabilitated the site by planting riparian grass seed, mulching, and planting riparian shrub seedlings.

Established four channel cross section sites for monitoring channel dynamics over time.

Constructed Antler Springs exclosure fence (0.26 miles).

## Expected benefits are:

Improved passage for juvenile steelhead by eliminating the velocity barrier and achieving stream velocities that allow tor passage.

Improved natural flow pattern of the stream channel through the culvert.

Reduced risk of culvert failure by installing a culvert that will pass a higher flow volume.

Improved riparian/wetland communities through mulching, seeding, and planting.

Decreased dispersed recreation impacts



Relocating juvenile steelhead from project site



**Total cost: \$213,000** (BPA funds: \$123,000; USFS funds: \$90,000)



Looking upstream at culvert outlet



**AFTER** 

Riparian seedlings protected by Vexar tubes

Looking upstream at edge of dispersed campsite





Antler Springs exclosure fence



