UPPER FLY CREEK RESTORATION 2022

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Project #: 1992-026-01

Habitat Completion Report

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United States Forest Service
Wallowa-Whitman National Forest

LaGrande Ranger District
LaGrande, OR

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UPPER FLY RESTORATION PROJECT

Location

This project involves implementing restoration in Upper Fly Creek to improve habitat for listed spring/summer chinook and summer steelhead. The project is located in T 5S, R 35R, S 8, 17, 20, 27, 28, 29. It is located in the Lower Fly Creek Subwatershed (170601040108).

Introduction

Historic management that included beaver trapping, roading, timber harvest (including splash dams), livestock grazing and an altered fire regime have degraded the Middle Fly Creek watershed's ecological form and function. The loss of functional stream habitat adversely effects the survival and rearing of native salmonids, other fish, and wildlife species

Middle Fly Creek is currently apart of the McCarty Sheep Allotment. Fly Creek is only used for watering and not used for any significant grazing. In the late 1980s/early 1990s, sill logs were added into the stream at specific locations. In 2009, large wood was added to the stream to enhance pool development and was effective in many parts of the project area. However, the 2019 peak flow event reduced their effectiveness. A streambottom road was recontoured and planted. Prior to the project, the stream channel was simplified with low levels of large wood, course substrate, and lack of quality pool habitat. Floodplain inundation and function was limited.

Objectives

1: Activate Side Channel Scrolls

Encourage and create perennial side channels through channel spanning log jam construction.

2: Restore Hydrologic Function

Increase hydration of a laterally confined channel to improve groundwater retention through channel spanning log jam construction.

3: Improve Fish Habitat

Restore habitat complexity.

Project Accomplishments

Large Wood Placement:

The project constructed debris jams and habitat structures at 68 sites over two years within the upper 2.0 miles of Fly Creek (RM 7.0 – RM 9.0). This included approximately 1500 pieces of large wood (1300 trees) and 3,400 yards of racking material. All of the wood were placed with excavators/log loaders. There were 1-3 pieces of large wood dug into the stream bank at each structure site. In addition, 2 – 5 pieces of large wood were pinned at each site.

- The 68 debris jams will mimiced the Type A Full Spanning Log Jam (Lower Fly Creek Restoration Project, 2020), which includes 2 large trees with rootwads (> 20" dbh) & 50' long), 4 medium trees with rootwads (14" – 20" dbh & 50' long), 6 small trees/logs (10" – 14" dbh & 30' – 50' long), 2 whole trees, and 5: 10 yard loads of racking material. These structures were designed for floodplain inundation and habitat complexity.

- There were an additional 150 whole trees and 398 logs placed within the stream and floodplain to provide habitat complexity, fish cover, and floodplain roughness.

- Total of 1500 large wood pieces were placed in 2022 and 2023.

Road Recontour:

Approximately 1 mile of road was fully recontoured within the project area. The road was ripped prior to the recontour to break up compaction. Approximately 2/3 mile of the road recontour project consisted of a streambottom road adjacent to Fly Creek.

Planting:

Planted 15,500 seedlings in upper Fly Creek. These were all planted by hand and consisted of 13,000 deciduous seedlings and 2500 conifers.

Seeding

A native grass seed mix was seeded on all of the disturbed areas. A large portion of the area was also mulched.

Placement of Wood into Fly Creek

Pre Wood Placement on Fly Creek

Pre Wood Placement on Fly Creek

Post Implementation on Fly Creek

Fly Creek Structure

Fly Creek Streambottom Road Recontour

Road Recontour on Access Road to Fly Creek

Planted Seedling