

Final Completion Summary

This project treated 276 acres of Brush Management and 195 acres of Forest Stand Improvement in the Butte Creek Watershed of Wheeler County, Oregon. The implementation of this project restored the rangeland and forestland to a healthy state to allow mature trees and native vegetation to thrive. Additionally, success of this project will reduce competition for water and nutrients, fuel loads that risk catastrophic wildfire, and the vulnerability for disease and pest infestation while improving water quality and quantity within the watershed. Partners for this project included Oregon Watershed Enhance Board, Natural Resource Conservation Service, Wheeler Soil and Water Conservation District, and the landowner.

Background

Fire suppression has enabled Western juniper to occupy sites where the species historically was not present. Under natural fire regime, juniper is limited to rocky terrain where the herbaceous understory would not be able to carry a fire. However, due to the expansion and invasion, this has allowed juniper to directly compete with native upland plant communities for limited resources. Additionally, historic logging practices have resulted in forest stands being overstocked, stressed, and presenting excessive fuel loads. The reduction of post logging maintenance, such as thinning, has led to crowded, overstocked patches that are currently present on the landscape. Fire suppression has further exacerbated the resource concern and allowed for the expansion of Western juniper throughout the mixed conifer forest.

Work Done

There was a total of 276 acres of northern aspect Western juniper cut and piled. OWEB funded 144 acres of Brush Management and 132 acres of Brush Management was funded by a partnering agency, Natural Resource Conservation Service. In addition, 195 acres of Forest Stand Improvement treatment reduced the overstock Ponderosa pine from 387 trees/acres to 207 trees/acre by targeting 1-9" DBH trees. All Western juniper was eradicated from the Forest Stand Improvement units. Western juniper removal and precommercial thinning was all completed mechanically using excavators to pull and pile or a feller buncher. These restoration actions resulted in the preservation of bunchgrass communities allowing them to perform the vital function of capturing, storing, and returning water to the hydrologic system of the Butte Creek Watershed. The Forest Stand Improvement also included the reduction of latter fuels and loads to mitigate potential catastrophic wildfire. This prevents the detrimental effects of agriculture production, terrestrial wildlife, and sediment loading that causes water quality issues that can harm stream systems, especially systems that are listed for anadromous species.

Changes from Proposed

There were no modifications or changes made during the course of the restoration project.

Public Awareness or Education

This project will be featured in displays at the 2024 Wheeler County Fair and Rodeo as well as the

SWCD's Annual Meeting. Elements of this project have also been featured in the Wheeler SWCD's 2023 Annual Report and various newsletters. In addition, this project will be showcased in a legislative tour scheduled for October 2024 to show how the restoration efforts restored watershed function, and ultimately placed the forested rangelands back on trajectory towards a healthy ecosystem and help sustain working lands to be more resilient to future climate change.

Lessons Learned

Timing of year is crucial for project implementation. The implementation window for upland conservation practices is restricted to spring and late fall. The extreme summer heat prevents machine work due to wildfire risk, while winter weather makes the project site inaccessible and low temperatures shuts down machinery. By recognizing the critical implementation windows, we can best ensure there is enough time to complete project components. Photo point establishment during the right season is also crucial in order to represent the restoration actions appropriately. Capacity and proposal timelines are typically the reasons photos may be taken in winter (with snow on the ground) or the heat of summer (showing dormant/dead vegetation). Even though the project is still representable with these photo points included, the project could have been better represented with more consideration of timing of pre-project photos.

Recommendations

As mentioned in the Lessons Learned, the recommendations are to consider project implementation to allow for weather contingencies and photo collection timing to ensure proper representation of project success.

Aquatic Habitat

The Wheeler Soil and Water Conservation District staff has read and is within compliance of the Oregon Aquatic Habitat Restoration and Enhancement Guide. All necessary permits were obtained prior to implementation. This project complies with the Oregon Aquatic Habitat Restoration and Enhancement Guide by removing/controlling competition for natural resources which in return will improve upland landscapes.

Special Conditions

Special Conditions for this project are fulfilled within the uploads section and through submissions to OWEB's Mid-Columbia Regional Program Representative.

Funding Sources

Source	Identifier	Cash	InKind Type	Inkind
Landowner		\$0.00	Labor	\$24,251.00
Natural Resource Conservation Service		\$88,559.00		\$0.00
OWEB	222-6019-22248	\$123,511.00		\$0.00

Totals

OWEB Amount	Non OWEB Cash	Inkind Total	Non OWEB Amount	OWEB Match	Total Project Cost
\$123,511.00	\$88,559.00	\$24,251.00	\$112,810.00	91.0%	\$236,321.00

Uploaded Files

Image Type	File Name	Description
Final Payment Checklist	Final Payment Check List_222-6019-22248.pdf	Final Payment Request Checklist
Grazing Management Plan	Grazing Management Plan COMP.pdf	Grazing Management Plan
Juniper Management Plan	LTJMP.pdf	Long Term Juniper Management Plan
Map	Photo Point Map.pdf	Photo Point Map
Photo Point	14(A).JPG	Overview of Western juniper removed through OWEB funds. OWEB unit bordered NRCS juniper unit to fully treat encroachment and reestablish the rangeland back to its historic state.
Photo Point	14(B).JPG	Overview of Western juniper to be removed through OWEB. Showing typical canopy cover restricting snow precipitation from entering ground.

Photo Point	13(A).JPG	Overview of precommercial unit treated with OWEB funds.
Photo Point	13(B).JPG	Overview of precommercial unit to be treated with OWEB funds.
Photo Point	12(A).JPG	OWEB juniper unit treated mechanically.
Photo Point	12(B).JPG	OWEB juniper unit to be treated with mechanical treatment.
Photo Point	11(A).JPG	Overview of NRCS juniper cut and OWEB precommercial thinning unit treated mechanically.
Photo Point	11(B).JPG	Overview of Western juniper to be removed along NRCS juniper cut.
Photo Point	10(A).JPG	OWEB funds used to pre-commercially thin Ponderosa pine and eradicate Western juniper.
Photo Point	10(B).JPG	View of Western juniper encroachment and overstocked Ponderosa pine to be treated through OWEB funds.
Photo Point	9(A).JPG	Landscape view of OWEB precommercial unit thinned.
Photo Point	9(B).JPG	Landscape view of OWEB precommercial unit to be treated. All Western juniper will be eradicated.
Photo Point	8(A).JPG	View of OWEB precommercial unit thinned. All Western juniper was eradicated.
Photo Point	8(B).JPG	View of OWEB precommercial thinning unit to be treated.
Photo Point	7(A).JPG	NRCSs thinning unit. Project removed smaller DBH Ponderosa pine and eradicated all Western juniper.

Photo Point	7(B).JPG	NRCS precommercial unit to be treating overstocked Ponderosa pine and Western juniper encroachment.
Photo Point	6(A).JPG	View of NRCS unit treated with precommercial thinning.
Photo Point	6(B).JPG	View of NRCS precommercial thinning unit.
Photo Point	5(A).JPG	Overview of NRCS unit treated with precommercial thinning.
Photo Point	5(B).JPG	Overview of NRCS precommercial unit. All Western juniper will be eradicated.
Photo Point	4(A).JPG	Landscape view of Western juniper removed throughout meadow.
Photo Point	4(B).JPG	Landscape view of Western juniper to be removed throughout meadow.
Photo Point	3 (A).JPG	View of Phase I Western juniper removed from pasture.
Photo Point	3(B).JPG	View of Phase I Western juniper to be removed.
Photo Point	2(A).JPG	Overview of Phase I and II Western juniper removed from field with mechanical treatment.
Photo Point	2(B).JPG	Overview of Phase I and II Western juniper to be mechanically removed.
Photo Point	1(A).JPG	Landscape view of Western juniper removed from pasture allowing native bunchgrass communities to reestablish and thrive.
Photo Point	1(B).JPG	Landscape view of juniper to be treated in pasture.
Photo (other)	222-6019-22248_Post Implementation Photos.pdf	Post-Project Photos
Photo (other)	222-6019-22248_PreProjectPhotos.pdf	Pre-Project Photos

First Payment Checklist	First_Payment_CkList_222-6019-22248.pdf	First Payment Request Checklist
Exhibit B	22248_Conditions.pdf	