

Final Completion Summary

This project is located in Southeast Wheeler County, in the Bridge Creek watershed which drains into the John Day River. The combination of invasive species encroachment in the riparian area, loss of native vegetation, juniper/ponderosa pine encroachment into historic grasslands, past land use practices, and fire suppression have created a decline in quality upland habitat and reduced water quantity and quality in the headwaters of the Bridge Creek basin. This project funded the removal of 332 acres of juniper, a pre-commercial thin of 55 acres of Ponderosa Pine forest, and reseeded 43 acres of mechanically disturbed areas during the juniper removal process. This was part of a landscape scale restoration effort where the continued application of restoration practices resulted in an additional 85 acres of juniper mechanically cut and piled, 85 acres of Forest Stand Improvement (pre-commercial thinning), 7,760 feet of open irrigation ditch converted to buried pipeline, three spring sources developed with a total of 8,890 feet of livestock pipeline, two solar powered pumping plants, two buried cisterns, and seven livestock watering facilities.

Background

Range health is one of the biggest issues facing landowners within Wheeler County. The encroachment of juniper and other invasive species combined with past land management and heavy fire suppression have greatly affected the present native rangeland plant community. Years of cattle pressure have damaged the native riparian vegetation communities and allowed for active erosion. Much of Bridge Creek's riparian areas have juniper within the floodplain. The native bunch grass and sagebrush communities in the uplands have been severely encroached by western juniper. The native herbaceous cover is currently in decline, but still remains intact. Without brush management practices these native communities will be replaced by invasive annuals. Juniper encroachment has reduced the health and vigor of the herbaceous understory which provides the key watershed function of capturing, storing, and safely releasing water into Bridge Creek. Historic fire suppression has allowed juniper encroachment which has robbed moisture and sunlight from native grass species. Continuing with the rig top to ridge top restoration, this project proposes to non-commercially thin 55 acres of overstocked ponderosa pine on a neighboring property. This portion of forest stand improvement is critical to completing a fire break at the top of this project boundary and could prevent a catastrophic wildfire.

Work Done

440 acres of North aspect Western Juniper were cut and piled using funding provided by a partnering agency, the Confederate Tribes of Warm Springs. Utilizing funding from the Oregon Watershed Enhancement Board 322 juniper acres were hand fell with chainsaws and piled with an excavator where slope percentages allowed. 163 total acres of broadcast range seeding were completed within these acres covering areas of disturbance. Approximately 43 acres of seeding has been applied to the OWEB funded portion of the juniper removal and the landowner plans to proceed in cleaning the remaining juniper carcasses from all of the slopes by loping, hand piling, and burning. All of the 55 acres of pre-

commercial pine thinning were completed through a combination of hand falling and "pluck and piled" with an excavator. All juniper trees were also removed from the 55 acres of thinning. These actions have resulted in the preservation of the bunchgrass communities allowing them to perform the vital watershed function of capturing, storing, and safely releasing water into the hydrologic system of the Bridge Creek watershed. The pre-commercial thinning has reduced fuel loads to mitigate potential catastrophic wildfire and resulting detrimental effects to terrestrial wildlife and severe sediment loading that can harm resident and anadromous fish species. The broadcast range seeding was focused on disturbed sites within juniper removal areas to minimize invasive species expansion. The current bunchgrass and herbaceous understory health, even with juniper encroachment, indicates that the sites are still being grazed properly.

Changes from Proposed

A juniper removal location change was requested by the landowner who stated that many of the selected acres had been projected onto steep, rocky, shallow, and unproductive soils. Wheeler SWCD field crews confirmed this, and requested the change with the OWEB regional project manager. Several time extensions were also granted to this project in order to completely fulfill project obligations however, in the end the landowner was not able to fully complete the OWEB funded portions of the juniper removal. Additionally, the majority of the juniper removal was located on terrain that is too steep to pile and jackpot burn at a later date.

Enrollment of the riparian areas into the USDA/Farm Service Agency's Conservation Reserve Enhancement Program (CREP) was also tabled until it is certain the landowner will be able to fulfill the contract obligations.

Public Awareness or Education

There was no active public awareness involved with this project beyond aspects of the partner funded juniper reduction, which were featured in displays set up at a Wheeler SWCD annual meeting and again at the Wheeler County Fair and Rodeo display booth. A large portion of this project is adjacent to Hwy 26 and anecdotally became a topic of discussion with the residents in the town of Mitchell.

Lessons Learned

The most valuable lesson learned from this project, is to be careful not to over whelm or over burden a landowner with project work. One landowner that was a part of this project was actively involved with several other conservation projects simultaneously with 3 different agencies. At one point, they held 4 different NRCS EQIP contracts at the same time this OWEB/CTWS project was active. This resulted in the juggling of multiple deadlines, extensions, and operational priorities. In the end, it proved to be too much to handle, and while a large majority of the juniper did get cut down, there is still a lot of work to be done in order to clean the hillsides of juniper carcasses.

Additionally, care should be taken when selecting priority slopes for juniper reduction. A GIS error resulted in the layout of the cut encompassing southern aspect slopes. A careful "boots on the ground" analysis should be considered when selecting large units to be cut. Even though the majority of unit was

looked at in the field, a portion of unproductive ground was included in the layout.

Recommendations

One recommendation that I would make stemming from lessons learned working through this project, would be to work closely with landowners to encourage them to seek contractors to assist in project work. Many producers want to take on project work themselves, which is great. However, working with them to develop specific and realistic timelines for completing project components along side of day-to-day operations would be a good way to gauge their capacity towards completing the project, or demonstrate they need for hiring contractors.

Aquatic Habitat

Wheeler SWCD has read the Oregon Aquatic Habitat Restoration and Enhancement Guide and all applicable project aspects are in compliance with the document.

Special Conditions

No changes to the grazing management plans are necessary at this time. The juniper maintenance schedule is also still a realistic and effective method of controlling the reestablishment of juniper seedlings.

All other special conditions to the grant agreement are met under the uploads section.

Funding Sources

Source	Identifier	Cash	InKind Type	Inkind
Confed Tribes Warm Springs (CTWS)	CTWS	\$96,800.00		\$0.00
Landowner	In-kind	\$0.00	Labor	\$2,055.00
OWEB	215-6052-11760	\$112,146.87		\$0.00

Totals

OWEB Amount	Non OWEB Cash	Inkind Total	Non OWEB Amount	OWEB Match	Total Project Cost
\$112,146.87	\$96,800.00	\$2,055.00	\$98,855.00	88.0%	\$211,001.87

Uploaded Files

Image Type	File Name	Description
Photo Point	P8232376.JPG	Landscape view of juniper to be treated.
Photo Point	PC025755.JPG	Landscape view of juniper treatment.
Photo Point	P8232377.JPG	Showing juniper removal site and typical understory.
Photo Point	PC025790.JPG	Overview of juniper removal and typical understory.
Photo Point	P9192480.JPG	Overview of juniper removal site with healthy bunchgrass communities.
Photo Point	PC025993.JPG	Showing juniper treatment perimeter.
Photo Point	P9192487.JPG	View of juniper to be removed from northern slope.
Photo Point	PC025841.JPG	View of juniper treatment along northern slope.
Photo Point	P9192485.JPG	Landscape view of juniper to be removed from draw.
Photo Point	PC025876.JPG	Showing juniper removal on both sides of the draw.
Photo Point	P9192484.JPG	Overview of juniper treatment site.
Photo Point	PC025894.JPG	Landscape view of juniper treatment along northern aspect.
Photo Point	P9192482.JPG	Showing juniper removal site with typical understory of shrubs and bunchgrass.
Photo Point	PC025924.JPG	Overview of juniper removal and showing typical shrub understory.
Photo Point	P9192481.JPG	View of juniper removal site.
Photo Point	PC025930.JPG	View of juniper treatment with healthy grass and shrub communities.

Photo Point	Timber_Thin_Before.jpg	Overview of forest stand to be improved through thinning.
Photo Point	IMG_2407(10).jpg	Overview of forest thinning and pest management.
Photo Point	P4041816.JPG	Showing forest stand to be treated by thinning.
Photo Point	IMG_2409(1).jpg	View of forest thinning along roadway.
Photo Point	P5050175.JPG	Overview of riparian area along Keys Creek.
Photo Point	IMG_2209(2).jpg	Overview of riparian area along Keys Creek.
Photo Point	P5050177.JPG	Landscape view of Keys Creek.
Photo Point	IMG_2236(2).jpg	Landscape view of Keys Creek.
Photo Point	P5050178.JPG	View of Keys Creek with healthy woody species.
Photo Point	IMG_2255(2).jpg	View of Keys Creek and healthy woody species.
Photo Point	P5050180.JPG	Showing floodplain connectivity and woody species throughout riparian area.
Photo Point	IMG_2247.JPG	Showing floodplain connectivity and woody species.
Photo Point	PC025732.JPG	Overview of seeded area.
Photo Point	PC025739.JPG	Overview of range seeded area.
Map	Final Project Components.pdf	Final Project Components