

Final Completion Summary

The project is located on Bridge Creek at the confluence of Bridge Creek and Bear Creek. This is one of only two private in-holdings in the predominantly publicly owned lower reaches of Bridge Creek. The area of interest contains 1.24 miles of Bridge Creek and 0.19 miles of Bear Creek. The other phases of the Bridge-Bear project were very successful. The Vertical Posts Structures (VPSs) performed well and showed good agreement with the HEC-RAS simulations. Even with this improvement there was still much work to do in order to improve floodplain connectivity and fish habitat. Bear Creek in particular needed additional improvement to establish floodplain connectivity. There was also still a Russian Olive presence which was still above what can be addressed with standard maintenance. Phase #4 addressed a mile of the Bridge Creek corridor above and below the confluence with Bear Creek and focused on the very lower downstream end of Bear Creek. The project will repaired two of the previously installed VPSs and installed 21 additional VPSs. The new VPSs built on the success of the existing VPSs and LWD was installed to assist in activation of the floodplain. Pieces of large wood were installed at 16 different locations to provide fish habitat. These pieces of large wood are significantly larger than previous phases and extend into the stream channel to promote habit complexity.

Background

Much of the lower reaches of Bridge Creek are incised with little or no floodplain access and simplified habitat complexity. There is also a lack of large wood to contribute to the instream habitat complexity. The previously installed VPSs have trapped debris and sediment and have caused base water levels to increase significantly. Bear Creek has been known to go subsurface for much of the summer months within the ~quarter mile reach directly upstream of its confluence with Bridge Creek. The substrate in this section is predominantly cobble with much of the smaller size class of sediment being transported through and into Bridge Creek. This discontinuity also represents a passage barrier to fish in both directions. The goal of this project was to increase habitat complexity, and flow connectivity of Bridge Creek and Bear Creek. Additionally this project finished the final phase of Russian olive removal. With the completion of this project, it is hoped that natural processes will serve to raise the water table and eventually lead to flow connectivity between Bear Creek and Bridge Creek during low flow periods.

Work Done

This project was located on Bridge Creek at the confluence of Bridge Creek and Bear Creek. This is one of only two private in-holdings in the predominantly publicly owned lower reaches of Bridge Creek. The total area of interest contains just over 1 mile of Bridge Creek and 0.19 miles of Bear Creek. According to Oregon Department of Fish and Wildlife (ODFW), the Bridge Creek Watershed is one of the largest steelhead producing sub-basins in the Lower John Day River. The installation of the VPS and LWD were aimed at restoring connectivity of Bear Creek and Bridge Creek in order to provide access to additional cold water refugia for salmonids in the system later in the year.

By removing the invasive species of Russian Olive, these reaches are allowing for the expansion native

plant communities, and the overall ecosystem function of the riparian area will improve. This will benefit the steelhead and Chinook salmon by providing improved shading, food source, and habitat complexity. The instream work implemented through this project will provide protective habitat and stream complexity that will improve salmonid production.

Changes from Proposed

One project change occurred during the implementation of this project. It was originally the hopes of the Wheeler SWCD to partner with the Confederate Tribes of the Warm Springs to address the issue of the remaining Russian Olive presence. CTWS had partnered in the past phases of the project dedicating themselves to the removal and herbicide treatment of the Russian Olive but with a tightened budget and reduction of field crews, CTWS was a not able to provide partnership. While this resulted in only one round of treatment taking place, and the need to hire a private contractor to perform the service, infestation levels have now been reduced down to reasonable management level.

Public Awareness or Education

While no outreach activities are associated with this project, past phases of the project have been featured in displays at the District's annual meeting and at display booths at the Wheeler County Fair & Rodeo.

Lessons Learned

Since typical OWEB grant cycles do not align well with the Confederate Tribes of Warm Springs' development of their statement of work for the year, it is important to have regular conversations with CTWS staff about partnering on future restoration projects early in the conception stages of the projects so that their implementation funding can be secured and applied as secured match with the submission of a restoration proposal to OWEB.

Aquatic Habitat

Wheeler SWCD has read, and all project components are within compliance of the Oregon Aquatic Habitat Restoration and Enhancement Guide.

Special Conditions

Special Conditions for this project are met under the uploads portion of this reporting system.

Funding Sources

Source	Identifier	Cash	InKind Type	Inkind
Landowner		\$20,400.00		\$0.00
OWEB	218-6032-16061	\$59,877.60		\$0.00

Totals

OWEB Amount	Non OWEB Cash	Inkind Total	Non OWEB Amount	OWEB Match	Total Project Cost
\$59,877.60	\$20,400.00	\$0.00	\$20,400.00	34.0%	\$80,277.60

Uploaded Files

Image Type	File Name	Description
Photo Point	P7308260.jpg	Photo point #9. Showing LWD placement.
Photo Point	PA284968.JPG	Photo point #9. Close up of large woody debris.
Photo Point	P7308304.jpg	Photo point #29. Overview of LWD.
Photo Point	PA295212.JPG	Photo point #29. View of LWD.
Photo Point	P7308244.jpg	Photo point #2. Proposed location LWD placement along bank.
Photo Point	PA284847.JPG	Photo point #2. Showing LWD placement along bank.
Photo Point	P7308285.jpg	Photo point #22. Landscape view of proposed BDA locations.
Photo Point	PA295347.JPG	Photo point #22. Landscape view of installed BDAs.
Photo Point	P5110258.JPG	Photo point #26. Showing approximate BDA location, LWD placement, and Russian Olive treatment.
Photo Point	PA295314.JPG	Photo point #26. Landscape view showing BDA installs, LWD placement, and Russian Olive treatment.
Photo Point	P7308303.jpg	Photo point #28. View of riparian area and proposed BDA location.

Photo Point	PA295236.JPG	Photo point #28. Overview of BDA structure and riparian area.
Photo Point	P7308251.jpg	Photo point #5. Proposed BDA locations.
Photo Point	PA284880.JPG	Photo point #5. Overview of BDA structures.
Photo Point	P7308253.jpg	Photo point #7. View of BDA structure to be installed.
Photo Point	PA284929.JPG	Photo point #7. View of BDA structure and riparian species.
Photo Point	P7308276.jpg	Photo point #17. View of BDA structures to be installed.
Photo Point	PA285102.JPG	Photo point #17. Overview of BDA structures.
Map	OWEB_ProjectElement_Maps.pdf	Map of Final Project Elements
Photo (other)	BB4_218-6032_Befor-After-Map.pdf	Before/After Photo Reports and Map
Federal Lobbying Certificate	Fed Lobbying Cert..pdf	Federal Lobbying Certificate
Exhibit B	218-6032 EXHIBIT B Final.pdf	