



Forest FEATURES



WALLOWA-WHITMAN NATIONAL FOREST

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Beaver Dams Restore Riparian Areas

Many streams and rivers in eastern Oregon have been heavily impacted by activities such as mining, grazing, logging, road building, farming, and urbanization. However, in the southern portion of the Wallowa-Whitman National Forest near Whitney Valley the Whitman Ranger District, in partnership with the Powder Basin Watershed Council, Oregon Department of Fish and Wildlife, Oregon Watershed Enhancement Board (OWEB), and Whitman College in Walla Walla, Washington are working to reverse decades of impact by restoring beaver habitat in several tributary streams of the North Fork Burnt River. The project involves removing encroaching conifer trees, planting willows, fencing the aspen to protect the shoots from elk and livestock browse, and monitoring changes.

The goal of this project is to have beavers establish a core zone of stable beaver dam complexes that will allow them to expand their water storage and modification influences outwards into other tributaries. The project objectives include increasing the amount of surface and ground water stored in the watershed, trapping sediment, stabilizing eroding stream banks, decreasing stream temperatures, expanding the width and complexity of the riparian habitat, improving fish and wildlife habitat and creating increased habitat diversity and complexity in the watershed.

“Beavers have a knack for environmental restoration,” says Suzanne Fouty, District Hydrologist for the Whitman Ranger District, “As they build their dams in streams they transform those systems from single thread channels with narrow riparian zones to complex systems with wide riparian zones. Beaver dams enhance watershed conditions by raising the water table in the valley floor leading to more forage, diversified and improved wildlife and fisheries habitat, and improved flood control. The result is that stream/riparian systems, and the communities that depend on healthy systems, are less sensitive to climate variability and climate change. Beaver dams and the vegetative changes that accompany them also result in carbon sinks as ponds and dams trap organic material and vegetation types shift from dryland species with shallow or few roots, to deeply and abundantly rooted vegetation types such as sedges, willows, and cottonwoods.”

Fouty expects to see aspen respond within a year as a result of the removal of conifers and ungulate browse pressure. “It’s exciting to be part of a project that has multiple partners, can begin to yield results within a couple of years, is cost effective and produces multiple environmental and economic benefits,” says Fouty. The expansion of beaver populations is a critical step in the efforts to restore streams while continuing to utilize the land. “Ranching, logging, mining, recreation, roads and beavers are not mutually exclusive but changes do need to occur in how people do those things if conflicts are to be minimized and benefits maximized,” explains Fouty. And conflicts do arise, primarily when beavers clog irrigation canals, block culverts, or cut down favorite trees. Solutions include road culvert protection and culvert protective fences. More information can be found at beaversolutions.com.



This photo was taken at Upper Gimlet Creek and shows an aspen enclosure as well one of the riparian restoration areas. Special thanks to Suzanne Fouty for her work on this project and her help with putting this feature together. Final edits by: Matthew Burks, Public Affairs, Wallowa-Whitman National Forest.