



Transforming Watersheds

Upper Alpowa Creek - Garfield County

The Place

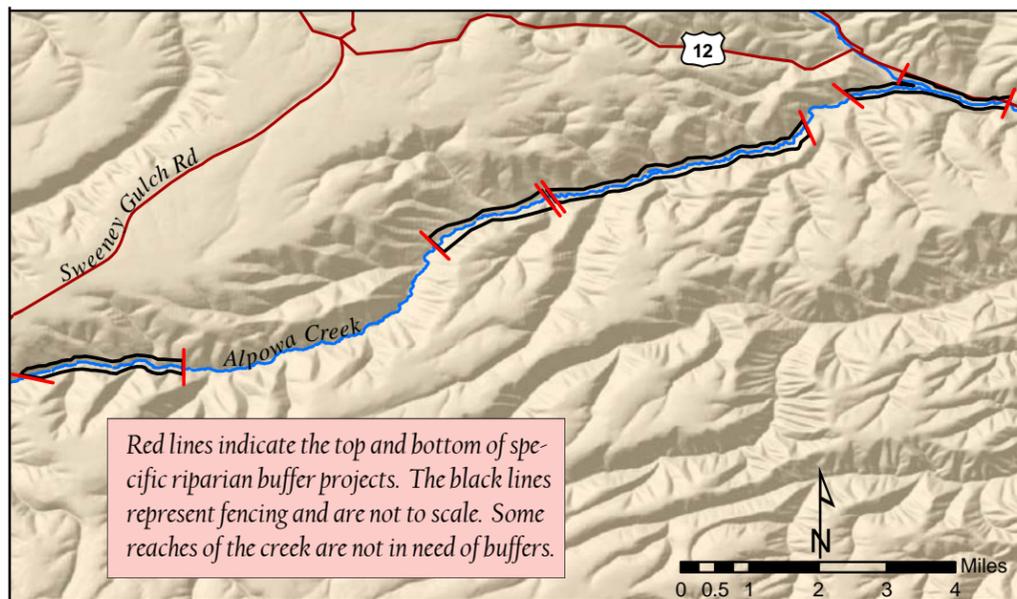
Alpowa Creek originates from several springs amid the forested foothills of the Blue Mountains in southeast Washington. It quickly gathers strength as it tumbles through a beautiful desert canyon, eventually reaching the Snake River less than 10 miles west of Clarkston. For generations, this canyon has been used to range and feed livestock. Also within the Alpowa watershed, wheat and barley are produced and shipped by barge down the Snake River to markets in Portland and beyond. The creek provides significant habitat for Snake River Steelhead trout, a sea-going salmonid that is included on the federal list of endangered species.

The Effort

Before work began to improve water quality in Alpowa Creek, livestock had uncontrolled access to much of the creek and were fed along its banks. A large portion of the stream (riparian) corridor was in poor condition, and the stream was consistently violating state water quality standards. Starting in 2001, a tremendous effort by the landowners, the Pomeroy Conservation District (PCD), and the local Natural Resource Conservation Service (NRCS) office resulted in more than 10 miles of riparian buffers in the upper watershed. The creek was fenced to protect it from livestock, and off-stream water sources were developed. Thousands of native trees and shrubs were planted within the stream corridor to help stabilize banks and shade the stream, thus reducing erosion and keeping the water cooler during the hot summer months.



Winter Feeding -- Alpowa Creek 2001



Riparian buffers installed on Alpowa Creek

The Results

The commitment to clean water by landowners on Alpowa Creek is quickly paying dividends. Native vegetation is returning to the riparian area, and water quality monitoring data indicate the stream is now meeting state water quality standards most months. In addition, many landowners have been pleasantly surprised with the on-the-ground results. While they point out water quality and fish habitat projects create some new management challenges, they also have observed some exciting economic benefits to their operations. By providing off-stream water in strategic locations, livestock are now better dispersed throughout their range. This has resulted in healthier grasses and improved forage. In turn, animals are typically more robust and healthy, and the amount of supplemental feed needed during the year is reduced.

The Future

The PCD will continue to monitor water quality in Alpowa Creek. The monitoring helps demonstrate that implementing these projects is improving water quality. Monitoring also helps identify where additional efforts may be needed. Some work remains to be completed in the watershed. Landowners will now focus project implementation in the small tributaries to Alpowa creek, where livestock still have uncontrolled access. There is also some evidence of failing septic systems that need to be addressed.



Alpowa Creek 2001 (before)

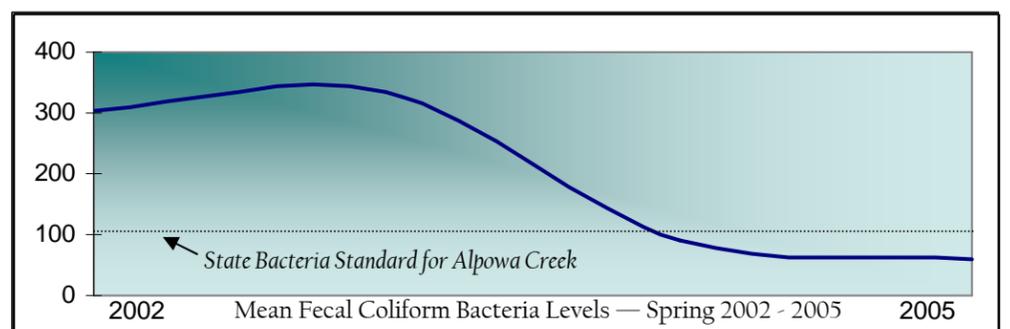


Alpowa Creek 2004 (after)

Riparian Buffers & Water Quality

Much of the work to improve water quality involves creating riparian buffers using a variety of funding sources. Riparian buffers are zones of protective native vegetation along streams that provide many important functions. Riparian buffers work to:

- Slow bank erosion by holding soil in place during periods of high water.
- Reduce flood damage and sedimentation by slowing runoff and capturing the sediment that would otherwise be carried downstream.
- Help keep water cool in the summer by shading the stream and protecting fish habitat.
- Improve water quality by reducing sediment, nutrients, pesticides, pathogens, and other pollutants from reaching the stream.
- Create fish and wildlife habitat. A healthy riparian area improves habitat for fish and provides the space, food, water, and cover needed by wildlife.
- Enhance summer stream flow by improving water infiltration and storage.



The People

Landowners installing riparian buffers —
D. Ledgerwood & Sons, S. & S. Ledgerwood, G. Gilbert.

Technical and financial assistance provided by —
PCD staff (Duane Bartels, Marie Gormsen); NRCS, Pomeroy (Rick Stauty, Carol Wildman, Jim Shawley); SE District Engineer Lance Horning; Farm Service Agency, Garfield County.

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For additional information, please contact Chad Atkins at the Dept. of Ecology 509-329-3499 or Duane Bartels at the PCD 509-843-1998.

If you need this information in an alternate format, contact us at 509-349-3455. If you are a person with a speech or hearing impairment, call 711 or 800-833-6388 for TTY.

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