FACT SHEET
SUMMARY

AUGUST 2013

HUGHES CREEK

Hazardous Fuels Reduction & Restoration Project

Funders & Partners

- Formation Capital
- National Forest Foundation
- Brainerd Foundation
- Salmon-Challis National Forest
- Trout Conservancy of Montana
- Salmon Valley Stewardship
- WildWest Institute
- Lowell & Mary Cerise

In August 2006, the Lemhi County Forest Restoration Group (LCRFG) selected the Hughes Creek area as their first collaborative community wildfire protection and forest restoration project. Working with the Salmon Challis National Forest, they helped design a 13,000-acre hazardous fuels reduction project, and reached out to private landowners to engage in complementary forest restoration activities. Implementation of fuels treatments and restoration work started in spring of 2009.

Pre-project photo: Channelized stream in Hughes Creek.

Why Hughes Creek?

Hughes Creek is a tributary of the North Fork of the Salmon River. The lower, privately owned, reaches of Hughes Creek were heavily impacted by historic placer mining, resulting in large piles of cobble tailings in the floodplain and along the creek's banks, causing a channelized stream that is unable to move within the floodplain. Hughes Creek also lacks large woody debris and quality pool structure important for healthy fish habitat. Three threatened or endangered fish reside in Hughes Creek: Chinook salmon, steelhead, and bull trout. The creek is considered critical habitat for all three species, as well.

Tailings piles from historic placer mining activities.

In-Stream Restoration Project

In 2009, Salmon Valley Stewardship (SVS) contacted Lowell and Mary Cerise, owners of a 30-acre pasture bordering lower Hughes Creek, about the possibility of improving stream habitat. SVS partnered with the Trout Conservancy of Montana to incorporate a similar project design that the Trout Conservancy had used successfully in Montana. SVS hired a summer intern, Jo Myers, to work with the Cerises to design the project and submit a permit application to the Corps of Engineers and the Idaho Department of Water Resources. In the final design, whole tree debris jams were installed to promote pool development and improve gravel structure within the stream. Specially trained draft horses were used to place these log jams in the creek. The logs were harvested from adjacent private property. (Cont. on page 2)

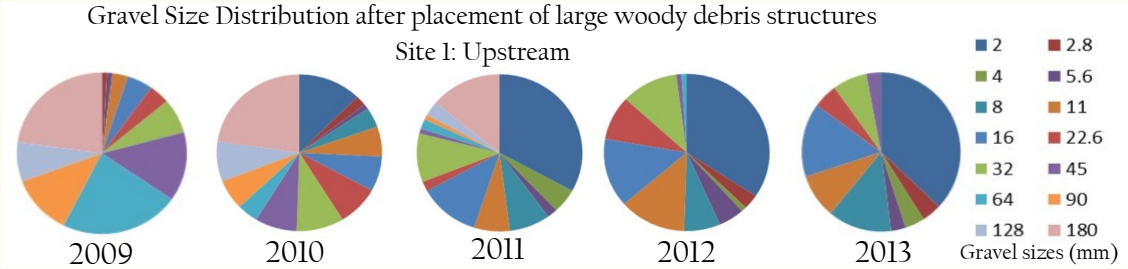
Project Objectives:

- Increase abundance and quality of pools for fishes
- Increase deposition of spawning gravels and riparian fines
- Increase overall habitat complexity

Hughes Creek Restoration

In-Stream Restoration Project (continued from page 1)

The large woody debris structures placed within the channel improve water quality and gravel structure by filtering fine sediments and increasing pool structure, while also providing refuge for fish. In four years, this stream restoration project has shown marked improvement in natural stream conditions and processes to the Hughes Creek channel and floodplain.



Pie charts show accumulation of smaller gravel sizes directly upstream of one of the structures.

"No matter how many people have pitched in to make this project happen, none of this would be possible if Lowell and Mary Cerise hadn't stepped forward and offered us a place to do this work.

As landowners, they call the shots, and they enthusiastically support the goals of improving stream conditions and fish habitat."

-Gina Knudson

Salmon Valley Stewardship Director

Monitoring

Annual monitoring of the stream restoration project provides an assessment of how well project objectives are met over time. Monitoring includes conducting gravel counts, pool inventories and large woody debris counts within the project reach. Volunteers from the forestry collaborative and local students have helped with monitoring efforts. In 2011, the Salmon Challis National Forest hired the Youth Employment Program to sample fish presence. Results confirmed that Chinook salmon and steelhead are moving back into the project area.

Hazardous Fuels Reduction

Fuels Reduction

The Hughes Creek Hazardous Fuels Reduction Project began in 2009. It included thinning and prescribed burning to reduce hazardous fuels and increase community protection from wildfires. More than 13,000 acres of Salmon-Challis National Forest land in the Hughes Creek watershed are included in the project area. Trees thinned for fuels reduction on the Cerise property were used to create the large woody debris structures in Hughes Creek.

Complementary Private Land Projects

The LCFRG reached out to adjacent private landowners to encourage complementary fuels reduction and restoration activities. Lemhi County administered grant funding provided through Idaho Department of Lands to initiate cost share programs for landowners willing to implement restoration treatments on their property.

Economic Opportunities


Photo by Mark S. Garland

Dave Sturman, a horse logger contractor from Montana, and his specially trained team of Belgian draft horses were crucial in completing this stream restoration project. They used cable, block and tackle to move the trees placed in the five log jam structures in the stream. A two day workshop was offered to those interested in draft horse logging, while Sturman and his horses were creating the structures. Federal agency officials in Montana and Idaho indicate horse logging services would be advantageous due to the horses' extremely low impact on sensitive areas, such as riparian areas. This workshop offered the benefit of informing local contractors of the potential economic opportunity stream restoration projects might offer.

"People enjoy watching the horses and the teamster at work, but it's far more than an aesthetic pleasure, they truly do the best job for the least expense, both in terms of dollars and environmental impact."

- Mark Garland

Wildlife Photographer

Hughes Creek Restoration

Before

After

Before

Channelized stream,

Larger gravel size

After

Increased Habitat complexity:

Pools, shade, increased spawning gravel

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www.salmonvalley.org

Future Monitoring

SVS agreed to coordinate volunteers to monitor the effectiveness of the stream restoration project for five years. 2013 marks the fourth year of monitoring. However, we remain committed to the project and look forward to working with landowners in the future on additional restoration projects.

Special Thanks

We want to thank Mary and Lowell Cerise for making this project possible. Thank you to Jo Christensen, John Zelazny, Dave Sturman, and all of our wonderful volunteers for sharing their knowledge, time, and dedication.