

Kerber Creek Quarterly

NEXT MEETING:
Thursday
March 19 2009
6pm
Location TBA

Winter 2009 Volume 1, Issue 1

Partners



Colorado Department
of Public Health
and Environment

The Project

In 1880, rich silver and gold veins were found in the Kerber Creek district, and the ensuing mining boom led to the foundation of the towns Bonanza, Kerber City, Sedgwick, Exchequer, and Parkville, of which only Bonanza survives today. In those first few years population estimates range from 500 to 1500; Bonanza alone is said to have had seven dance halls and thirty-six saloons. The excitement over the Kerber Creek mining district dissipated as quickly as it had come, with the population shrinking to around 100 as miners realized that accessible, high grade ore was not as easy to come by as the name 'Bonanza' might suggest.

Like many western mining towns, Bonanza had a series of booms and busts, the final and largest of which came in the 1920s with the reopening and Eastern investment in the Cocomongo, Bonanza, and Rawley Mines. The bulk of that work finished in the 1930s, with a fire nearly decimating Bonanza in 1937. Large scale mining has not returned to the area, although there are those who believe that there are still fortunes awaiting those who look in the right spot.

Unfortunately, the mines left a larger legacy than the rich history of the mining towns. As early as the mid 1880s, there are records of ranchers downstream becoming adversely affected by the mining operations. Not only could they see the water quality in Kerber creek declining, but mine tailings were being deposited downstream every time a tailings dam ruptured. Today there are over 60 acres of tailings deposited downstream of the large mining sites.

Reclamation work finally began in the 1990s. At that time, Kerber Creek was orange with acid mine drainage and devoid of life. The American Smelting & Refining Company (ASARCO) partnered with the Bureau of Land Management (BLM), the Forest Service (FS), the Colorado Department of Public Health and the Environment, and landowners to clean



up some of the most polluted areas by the Rawley mine site and downstream.

Further cleanup efforts were initiated in 2005 by the BLM and FS and continue today. Most of the work is being done with the consent of landowners on private land under legislation called the Wyden amendment, which allows the BLM to work on private lands for the benefit of public lands or human health and the environment. The Natural Resources Conservation Service, Trout Unlimited, the Fish and Wildlife Service, the Western Hardrock Watershed Team, and the Colorado Department of Public Health and Environment have joined forces with the BLM, FS, and the landowners, who form the Bonanza Stakeholders Group.

Three primary methods are being used to improve the condition of Kerber Creek. Tailings piles are undergoing the process of phytostabilization, which involves immobilizing metals by incorporating lime, organic material, fertilizer and appropriate vegetation. This also creates extra grazing land for livestock and improves wildlife habitat. In addition, the stream bank and channel are being stabilized to improve stream functionality and increase wildlife habitat. Additional fish habitats are being created by placing boulders within the creek. Work is scheduled to continue through 2012.

-Maggie Barnes
OSM/VISTA Volunteer
San Luis Valley Public Lands Center
Saguache Field Office

Trout Unlimited Receives \$413,000

Elizabeth Russell with Trout Unlimited and Steve Sanchez with the BLM began writing a grant proposal in 2007 for an EPA Clean Water Act Section 319 Grant administered by CDPHE. These grants are meant to aid projects specifically dealing with non-point source pollution, such as pollution from abandoned mine waste.

The initial grant proposal was submitted in January 2008. After a lot of patience and multiple revisions, CDPHE made the decision to fully fund the Kerber Creek proposal for \$413,000.

There is still work to be done before funds will be released to the project. The

main hurdle is creating a Sampling and Analysis Plan; Elizabeth and Steve are working hard to write a plan which is cost effective and satisfies EPA and state requirements.

The 319 funds will be used for a variety of purposes over a three year period. The majority of the funds will be used to phytostabilize tailings piles. The grant will also fund stream bank stabilization, installing fish habitat structures, and monitoring biological and physical changes in the creek and riparian area. A watershed plan will also be created.

-Maggie Barnes
OSM/VISTA Volunteer

NRCS Awards over \$350,000 to Project

In 2008, the Bonanza Stakeholders Group and partners submitted a proposal for funding through USDA's Wildlife Habitat Incentives Program, requesting \$215,271 of federal funds to assist in restoration efforts within the Kerber Creek corridor. By late March of 2008, the Kerber Creek project was selected as one of the top ranking in the State of Colorado and awarded \$353,214 dollars; which was 46% of the State's allocation.

This funding opportunity has been one of many partnerships developed in an effort to restore Kerber Creek. The WHIP funds were planned to provide restoration from 2008 to 2009, at which point we anticipated other funding sources to be available through partnerships such as the EPA's 319 grant administered through Trout Unlimited.

With tremendous support from the BLM and other partners, the Natural Resources Conservation Service provided stakeholders with restoration plans and

engineering designs covering over 900 acres of the Kerber Creek watershed. To date, WHIP funds helped to restore 3,200 Linear Feet of stream and to treat 12.5 acres of tailing piles. This is a decent accomplishment considering the WHIP contracts were just written last June; many thanks to all the landowners, contractors, NRCS staff, and partners that have provided their expertise and time.

The 2009 season for WHIP implementation is expected to be a busy one, since the goal is to implement the remaining \$250 thousand dollars of contracted work items. Starting in March, NRCS will be contacting WHIP participants in an effort to finalize designs and plans, and to start working towards a fun and productive upcoming season!

-Chanda Pettie
NRCS Wildlife Biologist

OSM/VISTA Volunteer

The Western Hardrock Watershed Team has partnered with the Kerber Creek Restoration Project. The WHWT is an initiative of the Office of Surface Mining and the Americorps VISTA program. They help connect full time volunteers to watershed groups.

The Kerber Creek Restoration Project is slated to have an OSM/VISTA Volunteer for three years, November 2008 to October 2011. Each volunteer position lasts for one year, which means the project will likely have three volunteers. The position is based out of the Public Lands Center in Saguache.

The mission of the OSM/VISTA Volunteer is to increase the functional capacity of the watershed group. This includes facilitating communication between stakeholders and participating organizations, increasing media coverage, grant writing, encouraging educational programs in the watershed, looking for possibilities for local economic growth, and celebrating local history – as well as doing anything else the project may need.

For more information, the WHWT website is www.hardrockteam.org. You may also contact the current volunteer directly:

Maggie Barnes
46525 State Highway 114
Saguache, CO 81149
719-655-6133
Margaret_Barnes@blm.gov

As the current OSM/VISTA Volunteer, I'd like to say that I'm excited to be with the Kerber Creek Restoration Project. I'd love to hear from you - don't hesitate to call me with any question or concern. 2009 is going to be a great year!

-Maggie Barnes
OSM/VISTA Volunteer

ACRONYMS

BLM: Bureau of Land Management	NRCS: Natural Resources Conservation Service
CDOW: Colorado Division of Wildlife	OSM: Office of Surface Mining
CDPHE: Colorado Department of Public Health and Environment	TU: Trout Unlimited
EPA: Environmental Protection Agency	VISTA: Volunteers In Service To America
FS: Forest Service	WHIP: Wildlife Habitat Incentives Program
	WHWT: Western Hardrock Watershed Team

Shocking ... fish in Kerber Creek!

In 2007 & early 2008, I read several reports stating that fish had returned to Kerber Creek following the voluntary clean-up efforts in the upper watershed many years ago. However, there were no data to support those statements. The only biological data that I was able to find was from 28 year ago, a 1980 Colorado Division of Wildlife (CDOW) sampling effort. They sampled 3 sites along Kerber Creek and only the uppermost site (below the confluence with Mosquito Creek & upstream of mining impacts) had fish – 117 brook trout. The other 2 sites, one about ½ mile upstream of Rawley Gulch/downstream of the Cocomongo Mine, and the other downstream of the bridge near Soda Springs, contained no fish.

28 years later, as part of the Bonanza Stakeholders Group efforts in 2008, the US Fish and Wildlife Service sampled for fish at 5 sites along Kerber Creek... and they all had some fish. Sampling fish is an interesting thing... the method we use is called electrofishing. Basically, you put electricity in the water to stun the fish so you can easily capture them (don't try this at home – it does take specialized equipment!). Then we measure their length and weigh them

before returning them to the stream. There were 5 long-nosed dace at our furthest downstream stream site (Hutchinson property). The next site (across from Soda Springs & one of the CDOW sites) had 3 brook trout. Our third site (near KC01 – Ashley property) had 2 brook trout. The fourth site (downstream of the confluence with Brewery Creek) had 10 brook trout. And the uppermost site (near CDOW's) had 42 brook trout. Some data analyses still need to be conducted and we will be doing more sampling in the future as projects are completed. Next time we sample, I'll be looking for volunteers.

In addition, aquatic invertebrates (aka fish food) were also sampled at these sites. Once all those data are back, we'll let you know what we found.

While the numbers of fish are not high, it is very encouraging that we do have fish in Kerber Creek. And we think that those numbers will only increase as the phytostabilization, in-stream, and riparian habitat projects are implemented.

-Laura Archuleta
US Fish and Wildlife Service



Long-Nosed Dace



Measuring a Brook Trout

Announcements

Attention all businesses! A Kerber Creek brochure is in the works to appear in regional BLM/FS lobbies before the summer tourist season. It will say a little about Kerber Creek history and reclamation, but its main point will be to highlight area businesses! If you have rooms for rent, a bed and breakfast, an art studio, or anything else you would like to advertise in the brochure, please send Maggie that information by Friday, March 13th. All businesses included will have a chance to view, comment on, and approve the brochure prior to publication.

Do you like kids? I've started a discussion with the San Luis Valley Environmental Conservation and Education Council to bring a few K-12 field trips up to the public lands by the Bonanza area so that classes can learn about mining history and watershed functions. Classes could also benefit by

looking at some current reclamation work. If you would be willing to let a class look at work being done on your land (or even come out and talk to them about it!) please let Maggie know.

Mark your calendars! The next stakeholder meeting will be **Thursday, March 19** at 6pm. Topics to be discussed include: Watershed plan, 2009 Volunteer Days, Kerber Creek field trips, Preview of the Kerber Brochure, New partnerships, and more! Location TBA.

Have something to say? Send in submissions by Friday, April 3rd, for publication in the next Kerber Creek Quarterly. Types of submissions desired include, but are not limited to: pictures, histories (memories, family stories, etc.), work completed/planned on your land, op/ed, humor, and poetry. Contact Maggie for more information. Maggie reserves the right to edit submissions.

Volunteer work:

The Collegiate Peaks Anglers chapter of Trout Unlimited has scheduled a volunteer weekend on June 27-28, mainly for activities such as planting willows and sedges along unstable stream bank areas. This will give us an incredible in-kind donation of labor, as well as freeing up funds that may have been used on contractors to expand our project area. Want to give an easy **in-kind donation**? Help us out with food and drinks for volunteers! Contact Maggie if you would like to help out.

The Southwest Conservation Corps may come to Kerber with an 8-10 member crew for 2-4 weeks this summer. This is contract work, but it costs much less than professional contractors. They would be doing basic labor such as planting seeds, willows, and sedges, as well as possibly taking down old/hazardous fences and building new ones.

2008 Accomplishments

2008 has been a very exciting year for the Kerber Creek Restoration Project. The greatly increased project funding and new volunteer position have been mentioned in this newsletter. On top of that, a great deal of work was completed on the creek.

The BLM relocated three tailings piles with high metals concentrations into nearby repositories. They phyto-stabilized five other tailings piles in place for a

total of eight reclaimed tailings piles on nine acres of land and three finished repositories.

In addition, construction was done on a large tailings pile near the Cocomongo mine site to reduce the amount of water flowing through it, which in turn should reduce the metals content of Kerber Creek.

NRCS was also hard at work with several

landowners, phytostabilizing twelve acres in place as well as stabilizing stream banks and installing several fish habitat structures.

2008 was a great success due to the collaboration of the Bonanza Stakeholders group with the BLM and NRCS. Thanks for all your hard work!

-Maggie Barnes
OSM/VISTA Volunteer

What is phytostabilization?

Phytostabilization is the process we are using on Kerber Creek to clean up tailings piles. First lime is mixed deeply into the tailings to immobilize the metals, then a growing medium such as soil, fertilizer, and manure is mixed in. Several months later, the area is seeded and mulched. This prevents the metals from leeching into the creek, creates more grazing/foraging land, and just plain looks nicer.

Looking Back

"The Kerber Creek District of the present is entirely tied up with the past and although the glory of the past is gone and its impact partly erased by the ravages of time, memory never dies through tales well told, and a day rich in human lore and individual character lives forever. Those of us who are descended from this old stock can appreciate the wilderness beauty that these old eyes first beheld as they traveled the trails through the mountain land.

"Some of the former beauty has forever been destroyed. The breaking of the tailings dams and subsequent floods

have covered parts of the meadows that were once veritable gardens of green beauty lush with native grasses. Doctor Kortright told me that at the time he first set eyes on the canyon it reminded him of unspoiled land in Alaska, and he said that the wild life was almost as abundant. This was in 1899. Think what it must have been in the early '60's or '70's!

"Though some of the meadows are not so lush as they once were, the land still holds much beauty for those who know it. The majesty of Antoro has not lessened, nor the dignity of old Hayden

diminished. Flagstaff, Sheep and Round Mountains loan their grandeur to the public eye, and the perfume of high altitude moss forget-me-nots floats upon the air. The canyons and the gulches still grow the same wild flowers as the earth waits patiently for the healing that time must one day give the scars inflicted by man in their mad rush to find riches."

-Helen A. Kempner
San Luis Valley Historian
Volume III Issue 2
Spring 1971

Call for NRCS Earth Team Volunteers

"The Earth Team provides volunteer leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment".

The collective talents and energies of private individuals and groups are critical in the conservation of our natural resources. Since 1981, the Natural Resources Conservation Service (NRCS) has provided an opportunity for volunteers to organize as the "Earth Team". As an Earth Team volunteer, you will be working side by side with the USDA Natural Resources Conservation

Service's corps of professional conservationists. While you are not considered a federal employee, you are offered protection under the Workers' Compensation Program and Tort Claims Act, and NRCS can pay for incidental expenses you may incur as you give your generous contribution of time and talents. You may also be issued tools, equipment, vehicles, or other government property needed to perform your job duties. Earth Team volunteers will receive credit for their work on any future NRCS employment application if it represents qualifying experience for the

position for which they are applying for, and you have the same training opportunities as a Federal employee.

As an earth Team volunteer, we hope you will enjoy sharing your skills, learning new ones, meeting new people, and being part of a dedicated, national conservation effort.

Please contact Chanda Pettie for more information:

719-588-2923
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