



The Explorer

The Official Newsletter of the Lewis & Clark Conservation District

Volume 61, Issue 4

Autumn 2022

Beaver Creek Reborn

Jeff Ryan, LCCD Board Chair



My association with Beaver Creek started almost 50 years ago. I was working for Montana's first environmental consulting firm, ECON. ECON was started to primarily provide wildlife monitoring data for the area surrounding the proposed Colstrip mining area. However, as most consulting firms do, we had a number of other services we offered. One service was remote sensing using aerial photography. Back then the techniques were a bit archaic, but

Phase 1 Project Construction

served the purpose.

Today, with a push of a button, imagery is generated from a satellite. Our specialty was using a 35mm motordrive camera from low levels. We had built a camera mount that clamped to the open window door of a Cessna high-wing airplane. Since the camera was a motor drive the photos could be snapped remotely inside the airplane, but it wasn't the most user-friendly arrangement. With the window open, the wind, usually very cold, roared in the cockpit necessitating mostly hand signals with the pilot.



Phase 1 Project year 1

However, this arrangement would have been great compared to the technique we had to use to obtain imagery of the spawning areas in the Missouri River where Beaver Creek enters the river, not too far below Hauser Dam, which is located about 15 miles NE of Helena. FWP had contacted us to obtain aerial stereo photography of the spawning “redds”. There was a young graduate student, Ron Spoon (now the FWP Fisheries Biologist based in Townsend) doing thesis work on the spawning area and he wanted to better quantify the number and size of the critical areas. Ordinarily, this would have been an easy project. A simple pass of the airplane and the photos could be taken. In this case and at an elevation of less than 500 feet, it was not feasible to fly the Cessna down below the steep cliffs surrounding the area with Hauser Dam blocking one end. So, the decision was made to use a helicopter. The problem was we didn’t have a camera mount for a helicopter. The mount was to be a young dumb man (me) standing on the strut of the helicopter and taking the vertical photos. We had a long strap tethering me to the helicopter, but I would have fluttered like a bird on a string, had I slipped off the strut.

Well without any more details, the photos were successfully obtained, Ron Spoon was able to finish his thesis work and I lived through it to become a great grandpa.

Today, I am again involved with the Beaver Creek Area, but under much more favorable conditions. Beaver Creek is one of the major spawning tributaries to the Missouri River in the region and the state. Millions of dollars of revenue are generated in the Helena area related to this fishing activity. 1.2 miles of Beaver Creek is being restored to improve fish/wildlife habitat and water quality. Historically, this area had been intensively farmed, resulting in extensive stream degradation. The stream had downcut, abandoning its floodplain and generating tons of sediment. Obviously, this sediment adversely affected spawning in the stream and an extensive area at the creek mouth in the Missouri River. Decades ago, the property was acquired by the Forest Service and much of the farming activity was discontinued.

Unfortunately, the stream was not able to naturally reestablish a floodplain and degradation continued. To correct the stream problems, the Forest Service is taking the lead to restore natural stream conditions. To do this, most of the stream needs to be reconstructed up on its historic valley floodplain. This kind of stream restoration is very complicated and expensive. Numerous partners are involved with the project, Northwest Energy, FWP, Pat Barnes Trout Unlimited Chapter and our Lewis and Clark Conservation District.

Our Conservation District’s help has so far involved sponsoring a DNRC RRGL grant for \$125,000 and successfully testifying to a Legislative Committee to award the grant monies. Our next activity will be assisting with willow collection. Phase 2, the second half of the project, started in September and 30,000 willow cuttings will be needed. The restoration technique involves incorporating a lot of small wood (250 truckloads), consisting of juniper and lodgepole pine and willow cuttings, in the restored stream banks.

Since resources are already stretched to the limit to complete the project, **we are looking for volunteers to help collect the willow from the area surrounding the project. Mark your calendars for Saturday October 15.** That is the day we are planning for volunteers to collect willow. It’s a lot of work, but the kind of effort that makes for a great family outing, in a beautiful part of Montana. A project that generations to come will enjoy and be proud of.

If you can find the time to join us on October 15, **please join the group from 10 am to 2 pm at the Missouri River Fishing Access site** (do a google search) or contact Allison (Alli) Russel at the USFW at 406-495-3923, email allison.russell@usda.gov.

Lake Helena: One Season In

Connor Mertz, CD Resource Technician



It's been just over 6 months since Lewis & Clark Conservation District and landowners Ian Robertson and Gary Willems completed another restoration project on the north shore of Lake Helena. Looking for a solution to bank erosion caused by ice and wave action, the landowners reached out expressing interest in pursuing a project similar to the one completed by landowner Tim Olds and LCCD in 2021. In short, this work involves using

Before project, steep banks with shallow rooted vegetation

biodegradable materials and willow cuttings to restore bank stability and protect the shoreline from future erosion. In addition to

stopping costly land loss for the landowners, this technique is also cost effective compared to traditional means of stabilization (riprap) and improves wildlife habitat and water quality.

The real test of success for these projects is how they withstand the first few winters of ice-scour that caused the erosion issues in the first place. Bioengineered project designs like this one rely on vegetation root mass (in this case from willows) to “knit” the shoreline in place. In the first few years after completion, the most important part of the project is actually occurring below-ground out of sight in form of a dense root mass growing.

As with any project, LCCD is constantly experimenting with design and installation techniques to improve efficiency, lower costs, and increase the overall success. In this most recent project, we tested different watering systems, gravel additions, and design the hope to improve future projects. We are always learning! Several months after the project completion, the willows have begun to sprout

To date, the project appears to be off to a successful start. The landowners have reported abundant willow growth along all ~620 ft of the restored bank, indicating a good root mass developing below ground. Additionally, LCCD has already hosted multiple onsite tours with groups



Several months following construction, willows are sprouting

such as the Lewis & Clark Water Quality Protection District and the legislative Water Policy Interim Committee to demonstrate bioengineering techniques and educate partners on the types of work CDs undertake. Most recently KXLH news highlighted the project in a news piece ([LINK](#)) regarding the proposed house spending bill (HJ27) which would provide critical funding support to Conservation Districts across the state.

PARTNER NEWS

NRCS

NRCS Application Deadlines

- CSP-GCI batching deadline is October 14, 2022
- All other program deadlines are October 28, 2022

Forestry TIP Tours-If you're interested in what these projects look like, come join NRCS!

- Friday October 7th at 1pm.
Meet at the junction of Hwy 434 and Little Wolf Creek Rd.
Will depart from there by 1:15
- Friday October 28th at 1pm.
Meet at the Lincoln DNRC office. Will depart from there by 1:15



Wolf Creek Meeting location



Lincoln Meeting Location



The Sun River Watershed Group (SRWG) has had a busy summer, providing outreach and education opportunities to our local communities and preparing for on-the-ground project work in 2023.

Summer events kicked off in June with the Freezeout Lake spent ammo and trash pickup, a new event SRWG began in partnership with the Montana Wildlife Federation and FWP. In July, SRWG held the 24th Annual Weed Whacker Rodeo. New this year, FWP Bear Biologist Chad White gave a presentation about recreating and volunteering safely in grizzly country. White gave a tutorial on how to use deterrent (bear spray) properly and attendees got a chance to try it out using inert spray. Other events this summer included our second Rain Barrel Workshop in Great Falls, a summer board meeting and projects presentation in Augusta, and social events including Suds for the Sun pint night and BBQ at the Ballpark. Bookending SRWG's active summer was the Bashin' Trash River Cleanup in late August. SRWG partnered with Lewis & Clark CD, Cascade CD, local Trout Unlimited chapters, and multiple watershed groups to recruit volunteers to clean up the Missouri and Sun rivers, riverside trails, parks, and fishing access sites from Helena to Great Falls, at Fort Benton, and up to the Largent's Bend FAS on the Sun River.

This fall, SRWG's Big Sky Watershed Corps member, Jessica Ramirez, will wrap up another season of water quality monitoring, which occurs April – October. SRWG will also be participating in the United Way / Great Falls Chamber of Commerce Worlds of Wonder event. This is a mentoring workshop for 8th and 10th graders to help expose them to a world of professional opportunities and give them a hands-on experience to pique their interest in potential careers.



Finally, SRWG will hold the Fall Sun River Water Management Working Group and Board meetings on October 26 at the Fairfield Ambulance Training Center. The Water Management Working Group meets every fall to recap the irrigation season and to discuss forecasted weather, water needs, and plans of operation for the Sun River. This meeting begins at 10 am. Lunch is served at 12:30, with the SRWG board meeting beginning at 1 pm. The meeting will end with an update about current and planned project work. Both meetings are open to the public. SRWG is seeking community members to join our Board of Directors. If you are interested, please contact Tracy@sunriverwatershed.org or at (406) 214-2868. Prospective board members are strongly encouraged to attend the October meetings; board elections will occur at the January SRWG board meeting.

More information about SRWG is available at www.sunriverwatershed.org or follow us on Facebook.

Photo: Weed Whacker Rodeo volunteers practice proper use of bear deterrent spray.



MACD is happy to announce a new call for the Ranching for Rivers Cost-Share program. This is a voluntary cost-share program to assist landowners in protecting riparian health through improved ranching stewardship practices. Through the Montana Department of Environmental Quality,

and partnering with DNRC, Ranching for Rivers offers 50% cost-share for fencing material, off-site water infrastructure, and developing grazing management plans.

Funding is also available for Conservation Districts and Watershed Groups to provide technical assistance on ranch management projects to local landowners in their area.

Landowners, Conservation Districts, Counties, and Watershed Groups who are working within areas with a DEQ-approved Watershed Restoration Plan are encouraged to apply for program funding.

First Call Deadline is **January 30th, 2023**. Application materials and more information can be found at <https://macdnet.org/programs/ranching-for-rivers/>.

District Report--Chris Evans, District Administrator



Skyler Van Dyken

In the 3rd quarter, the CD filled the vacant CD Supervisor position in the Dearborn Area. Skyler Van Dyken joined the CD Board to finish out Ron Ingersoll's position and hopefully beyond. Skyler is a 5th generation resident of the area, and is working the family ranch. His grandfather, Gary Murphy, had been on the CD Board for over 30 years.

The third quarter of 2022 was a busy one with CD Staff spending a lot of time either in the field or doing education and outreach projects. In addition, anyone who has tried to come see us in the past month knows that the USDA Service Center is in the midst of a refurbishing project, with new flooring and painting happening, so CD staff has largely been working remotely.

We anticipate a budget and planning meeting will be held in December this year, for 2023 planning. 2023 is our 75th anniversary and we will be doing some special events and other activities through the year in honor of that.

The CD's Big Sky Watershed Corps Member, Jessica Ramirez, reflected on her Summer with the CD on the following pages.





Summer
with the
CD





2022 Summer Events

Helena CORE Summer
Walk Series Kickoff

Rain Barrel Workshop

Stream Studies Walk

Wonders of Wetlands
Walk

Bashin' Trash

Watershed Festival





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