



# The Explorer

*The Official Newsletter of the Lewis & Clark Conservation District*

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## Happy Trails to long-time CD Supervisor

By Chris Evans, LCCD Administrator



The Conservation District got a call early in September from the CD Supervisor for the area east of I-15, Steve Granzow, that he had decided to retire. Steve has served with Lewis and Clark Conservation District for many years, beginning as an Associate Supervisor in 1991, and was elected for a term starting in January 1999. He remained active on the CD board until September 2021.

Steve was very active with the CD, and had the area in the county with the most “big water” doing permit inspections on Canyon Ferry and Hauser Reservoirs,

along with all of the perennial streams in his area. The position of CD Supervisor encompasses quite a variety of activities, from personnel issues, to project planning and development, serving on county, state and regional committees and far more.

I remember at my 6-month evaluation, way back in October 1999, Steve giving me some of the best advice I’ve ever had – Learn to Say No. And he meant not just to outsiders, but to the CD board. He didn’t want me to over-commit myself and take on too much. It’s advice that I don’t always put into practice.

Steve was also active with the Montana Association of Conservation Districts, serving as a legislative committee chair and was referred to as “the Parliamentarian” when he served with MACD. Of all the people I’ve known over the years, he has the parliamentary procedure best figured out!

Steve will be missed at the Conservation District, and we are all grateful for his 30 years of service. Karl Christians was appointed to finish out Steve’s term

# Riparian Management Workshop – Augusta

*By Connor Mertz, LCCD Resource Technician*



On Tuesday, September 14<sup>th</sup>, 28 people gathered at the Augusta Community Center to attend a Riparian Grazing Workshop hosted by LCCD. The workshop featured guest speakers Dr. Clayton Marlow, a range scientist and professor at Montana State University, and Allen McNeal, a restoration consultant with 30 years of experience in stream restoration. Members of multiple CDs, NRCS staff, several consultants, and Augusta landowners showed up for the event. The morning keynote presentations were followed by a field visit at the Converse Ranch just south of town.

The workshop was geared towards providing Augusta landowners with resources on recovering and adapting after the severe flooding in 2018 and 2019. These flooding events caused major infrastructural and land damage across the Elk Creek Watershed as well as to the town of Augusta. The two speakers focused on the topics of stream health, monitoring techniques, and riparian grazing management to build resilience for future flooding and drought events.

The overarching theme of the workshop was the importance of preserving and protecting healthy riparian systems on working lands. Healthy riparian areas function as important pieces of land in terms of grazing production and are also critical for water quality, habitat, and protection from costly bank erosion and flood damage. When managed properly, cattle can be used as a tool to help recover and promote these areas. Dr. Marlow emphasized that the best management practices are driven by long-term monitoring in areas of concern. A monitoring plan should carefully consider what conditions need to be improved and be practical so it is actually done consistently. He also iterated that on a larger scale, improving the health of our stream and riparian systems depends on watershed level management approach – taking everything from forested headwaters to the lower river valleys into consideration.

Presentation slides can be found at the Lewis & Clark Conservation District [website](#). For more information about the workshop and speakers, contact Connor Mertz at [connor@lewisandclarkcd.org](mailto:connor@lewisandclarkcd.org) or 406.389.3886

## Working Lands Internship-by Caitlyn Wade

I am a Resource Conservation student at the University of Montana, who interned at LCCD Supervisor Karl Christians' ranch in East Helena several weeks back. I (and 3 other college students at other locations around the state) participated in The Working Lands Internship, organized by DNRC's Rangeland Resources Program Coordinator Stacey Barta.

The Working Lands Internship places college students studying Natural Resources on six working ranches for two weeks per location throughout the summer. Students learn, live, and work with the host ranch families. This internship gives students insight into what work is being done on the land with our state's natural resources daily. It is an opportunity for students who don't come from an agricultural background to learn what ranching in Montana is all about.

From Conservation District meetings and turning wheel lines, from trailing cattle to fighting fires, to haying and digging ditches, this internship provides a bridge between the current world of natural resources academia and ranchers who are passionate about the land, animals, and water and are actively working to care for it.

Each fall and winter, both host ranches and college students apply to take part in this internship the following summer. This internship is a phenomenal way for ranchers to share their generations and wealth of knowledge with people who want to learn and understand, which seems to be critically important to the future of ranching. In many places, it also highlights how ranching and conservation currently and continue to coexist! (Apparently, they aren't sworn enemies!) I cannot recommend this internship highly enough.

*Editor's Note:* To learn more about the Internship program or to apply, go to: <http://dnrc.mt.gov/divisions/cadd/rangeland-resource-program/montana-working-lands-internship-program>.

## District Report-by Chris Evans

In the third quarter of 2021, the Conservation District wrapped up a grant from the National Association of Conservation Districts, when Andrew Kretschmer moved to NRCS in the Helena Field Office as a full time Soil Conservationists.

Due to Covid issues, the CD cannot have our regular meetings in the USDA Service Center, so we've been working on a meeting location. In the summer months, we're out in the other parts of the county anyway, but the September and October meetings will be held at the Lewis & Clark County Fairgrounds Exhibition Building in the upstairs conference room. The November meeting may not happen. After that, we'll be in the Montana Room at the DNRC building at 1539 Eleventh Ave, Helena MT 59601, until June of 2022. Meetings are the 2<sup>nd</sup> Thursday of every month and, September through May take place at 1 pm. June is at 9:30 am in Augusta, July is at 8:30 am at the Dearborn Community Center on Hwy 434 and August is at 9:30 in Lincoln.

In August, the CD collaborated with the Sun River Watershed Group and the Cascade Conservation District on Bashin' Trash—a cleanup on the Missouri River. All the groups started from a different point and cleaned up a section of the river. It was a really big and successful undertaking that we plan to participate in again in 2022.

In September the CD hosted a Riparian Grazing Management seminar in Augusta. Dr. Clayton Marlow from MSU and Allen McNeal, McNeal Resources, presented on grazing for riparian



health and stream form and function. There were about 30 people in attendance and it was a great day!

Upcoming in the 4<sup>th</sup> quarter, watch for details on [CD Programs](#), including the Cost Share, Pollinator and Water Test Cost Share programs. MACD Area meetings and Convention happen in October and November and then we'll begin our 2022 planning and budgeting.

## **CD PROGRAMS**

### **Practices Cost Share Program**

This is a competitive program and will help a landowner fund a project related to improving natural resources, including riparian or cross-fencing, new culverts, off-stream livestock water development, weed control, etc. We will pay up to \$2500 for a \$5000 project (50/50). For more information and to find the application go to our website at <https://lewisandclarkcd.org/programs/cost-share-program/>. Projects must be implemented by December 31 of the year they're applied for. Deadline for the 2022 program is November 1. Applications can be mailed to LCCD, 790 Colleen Street, Helena MT 59601 or emailed to [chris@lewisandclarkcd.org](mailto:chris@lewisandclarkcd.org).

### **Water Test Cost Share Program**

The CD will reimburse landowners in Lewis and Clark County \$25 when they get their well water tested. Your first call should be to the Lewis and Clark County Water Quality Protection District at 406-457-8584 for recommendations on what tests would be best to run. They should also have test kits available from the Well-Educated program from MSU. Once you've gotten your results back, email a copy to us at [chris@lewisandclarkcd.org](mailto:chris@lewisandclarkcd.org) or mail to LCCD, 790 Colleen Street, Helena MT 59601.

### **Pollinator Initiative**

After a wildly successful year in 2021 getting seed out to landowners, the CD is regrouping to determine how to most effectively run this program in the future. If you are interested in planting a pollinator plot, please fill out the Seed Request Form at <https://lewisandclarkcd.org/programs/pollinator-initiative/> and get it back to us via email at [connor@lewisandclarkcd.org](mailto:connor@lewisandclarkcd.org) or mail to LCCD, 790 Colleen Street, Helena MT 59601.

### **Time for Trees???**

If you are a landowner in Lewis and Clark County and you'd like to order trees for a shelterbelt/windbreak or other conservation planting, now is the time to order! The staff at the Conservation District Office will assist you with species selection and a planting plan and will assist you in submitting your order to the Montana State Conservation Seedling Nursery in the Missoula area. To see the current inventory of stock, go to <http://dnrc.mt.gov/divisions/forestry/forestry-assistance/conservation-seedling-nursery> and click on Current Inventory/Price List. The Printable Order form is also available.

If you have a smaller order and would like to combine it with other orders, you can contact the Lewis and Clark County Extension office at 406-447-8350 to get their assistance. Trees are ordered in the fall and delivered in the spring!

Check out our website at [www.lewisandclarkcd.org](http://www.lewisandclarkcd.org). We're also on [Facebook](#), [Instagram](#) and [Twitter](#).  
If you prefer to get this newsletter via email, sign up at [www.lewisandclarkcd.org](http://www.lewisandclarkcd.org) or give us a call at 406-449-5000 x5.

## Jumping Creek Stream Restoration

A Review, Monitoring Synthesis, and Lessons Learned-from the US Forest Service

### Introduction



In the summer of 2015, an over widened and down-cut stream bank along Sheep Creek within the Jumping Creek campground was identified for restoration. The Sheep Creek watershed is listed with the state for sediment concerns and was identified under the Forest's Watershed

Restoration Action

### Pre-treatment section of stream bank identified for restoration

Plan for sediment reduction. The stretch of bank was along campsite #4 and was approximately 100 feet long, with the most eroded sections of bank cut 10-14 feet in beyond the typical stream width and 4-6 ft. down from the soil surface. Due to the proximity to the campsite, the restoration technique would need to be resilient to further disturbance from human traffic while maintaining natural stream structure and riparian characteristics.

The restoration method selected for the site was a bioengineering technique utilizing Douglas fir fascines and willow lays. The project objectives were to restore the stream to its natural dimensions, restore native riparian vegetation, stabilize the stream bank, and reduce sedimentation and erosion while maintaining an aesthetically pleasing environment due to its proximity to the campsite.

### Implementation

Work was planned to be accomplished as a field exercise for a bioengineering training and workshop hosted by Jo Christiansen, the North Zone Fisheries Biologist on the Bitterroot National Forest. Project implementation was analyzed and originally scheduled for late July to August, 2016 during low flows, but upon Jo's recommendation, was instead deferred to spring of 2017. The timing adjustment was to maximize reestablishment success by aligning harvesting and willow lay installation with natural periods of willow dormancy and reemergence. Willow cuttings were

harvested on March 20, 2017 and stored under snow at the campsite until the workshop. The workshop was held on April 3 and 4<sup>th</sup>, 2017, and included local forest watershed staff in addition to staff from neighboring forests and cooperating agencies.

Construction consisted of three soil lifts with willow lays embedded in native soil in between each layer. A Douglas fir fascine was installed below the first lift in order to protect against undercutting and erosion. The soil lift material was a coarse mixed aggregate, with small amounts of native surface material utilized between layers to provide fine sediments and inoculate with native microbiota. Hoses were laid between each soil lift to provide irrigation to the willows through the dry season until roots were fully established.

### **Implementation Aftermath**

Spring implementation was optimal for revegetation and root establishment success. However, it varied from the projected implementation timeframe that was analyzed; instead of occurring when soils would be dry, project installation occurred in the middle of spring break up. Soil surfaces were moist or saturated, and substantial foot and excavator traffic resulted in churned, rutted, and compacted soil.

In order to ameliorate the resultant conditions, the excavator was retained onsite and on April 5, 2017 soils were mulched with certified weed-free straw, scarified, seeded with native seed mix, and slashed with native conifer and willow slash materials and residues. Due to the high soil moisture and degree of compaction, we were uncertain if scarification would be effective at relieving compaction. In order to facilitate the break-up and decompaction of surface soils, straw mulch, slash, and discarded willow tip residues were laid on soil surfaces first, and incorporated into the soil during scarification. Further mulch and seed were laid when scarification was completed.

### **Project Outcomes**

Within the first growing season of restoration, results were mixed. With regular watering, willow growth and establishment were successful. However, while vegetation was reestablishing along the upper scarified bank, substantial areas of bare soil remained. Though the soil lift surface was mulched, it still lacked native topsoil, and the exposed gravelly surface supported little vegetation besides sparse weeds.

In the spring of 2018, a substantial rain event resulted in flooding and high flows across the forest. The site was visited on May 1, during the height of flows to assess site stability and flooding impacts, and again on July 17<sup>th</sup> to assess growth and recovery. May flows overtopped the willow lays on the downstream edge of the site, but surface roughness from vegetation prevented erosion and encouraged some minor sediment deposition on the soil lift surface. The site remained stable and withstood erosive forces only one year after implementation. Small amounts of native soil material had been relocated over the soil lift from overwinter small mammal activity. The substantial spring moisture supported strong regrowth, and the site had substantially increased ground cover in July.

During the July (2018) visit, a few isolated willow tips that had been incorporated into the soil during scarification were still viable and growing. While willow tip establishment had been hoped for, it was not expected. This encouraging sign indicates that despite their small size and haphazard redistribution, cut willow tips can be successfully utilized and reestablished in reclamation, and should not be disposed of.

When the site was visited again July 2, 2019, further revegetation had occurred. The Douglas fir fascine was substantially degraded with only residual woody debris visible beneath



the willows. Willows had exceeded 3 ft. in height. Ground cover on the scarified soil surface along the native bank had exceeded 70% vegetative cover, though much of this was from dandelions. Vegetation remained sparse on the aggregate soil lift surface, but was revegetating with native fescue, likely due to the drier conditions on the surface from reduced fine sediments. Willow tips that had established during scarification were not as robust as those within the stabilized bank itself, but were healthy and were approximately 2 ft. in height. The site appears to be stable and on a trajectory to approach native streambank conditions within another 5 – 10 years.

### **Site Recovery Photo Series**



**April 4, 2017**



**May 1, 2018**





August, 2021

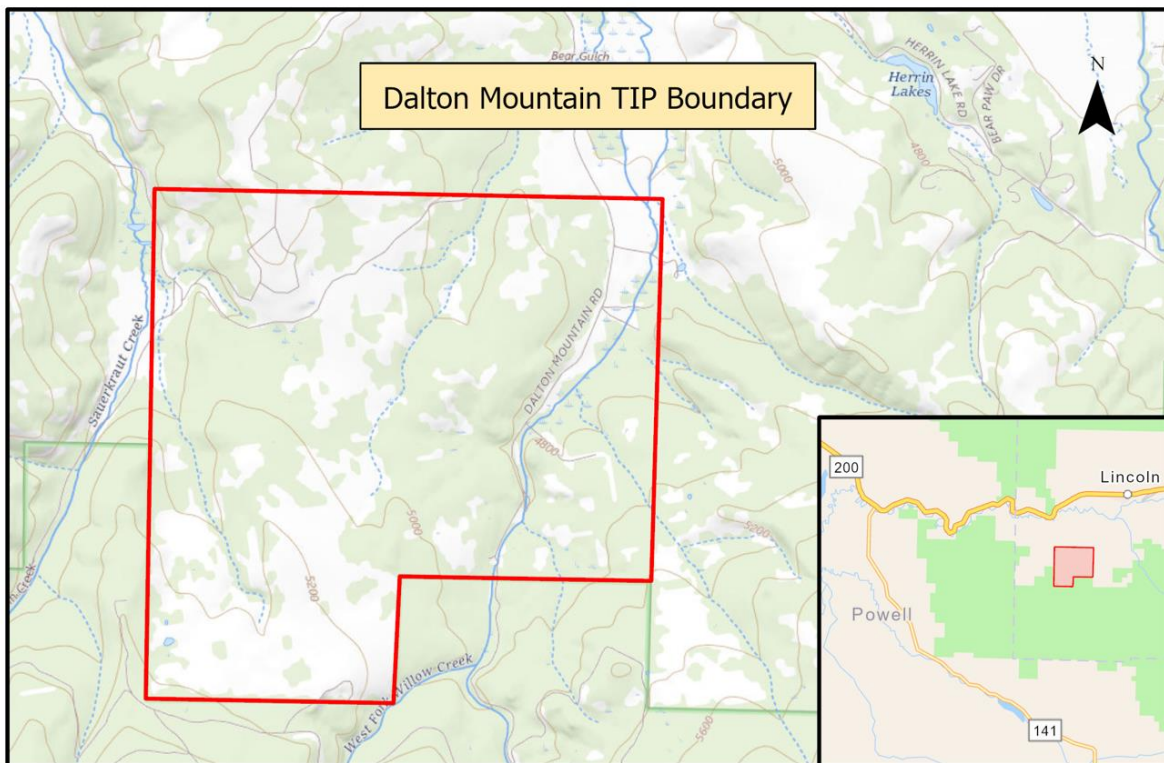
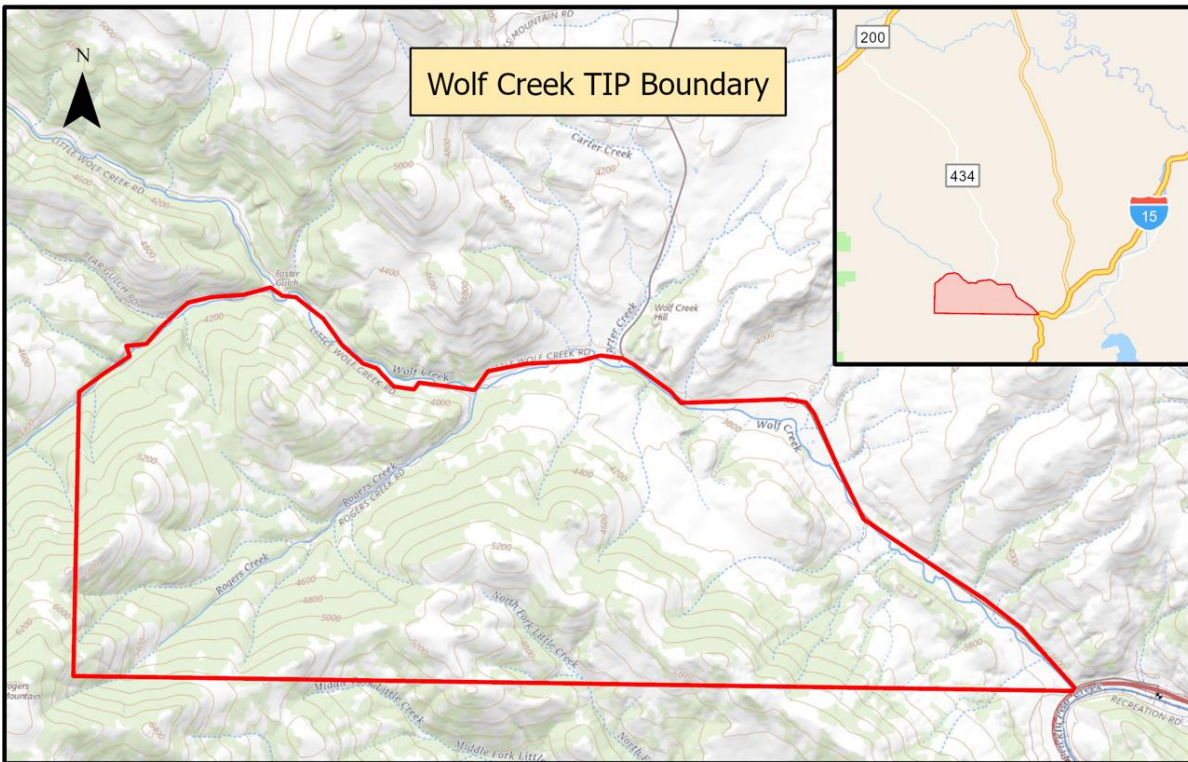
## **New NRCS Targeted Implementation Plans Announcement**

The Helena NRCS field office is excited to announce two new programs for private landowners in portions of Lewis and Clark County. Using the county-level long range plans and local interest, staff have developed two new Targeted Implementation Plans or TIP's. The two maps included in this article provide a general boundary for each project one of which is located in the Wolf Creek area, the other near Dalton Mountain Road. Staff at the Helena NRCS office are available to assist landowners identify if their properties are included.

While geographically separated the two TIP's which can be thought of as mini grants are both focused on addressing forest health, specifically mitigating impacts from forest pests, and increasing resiliency to wildfire. The projects utilize the national Environmental Quality Incentives Program, commonly referred to as EQIP to provide cost share and technical assistance to eligible private landowners. Eligible NRCS practices for cost share include the following: fuel break, woody residue treatment, tree and shrub pruning, forest stand improvement, and herbaceous weed treatment. More information on each of these can be found on the Montana NRCS website or by contacting the local office.

The official batching or application submission deadline has not yet been released but is expected to be announced between September 30<sup>th</sup> and the end of the 2021 calendar year. To reiterate, those dates are not the deadline, rather the timeframe in which the deadline is expected to be announced. Maps and additional details will be released and available online to coincide with the deadline announcement. If you or someone you know is interested participating in the program, please contact the local NRCS staff, individuals working on delivery include Rebecka (Becky) Ayre (project lead), Jason Saari, and Andrew Kretschmer. The office phone number is (406) 449-5000 extension #3, alternatively staff can be reached by email in the format [firstname.lastname@usda.gov](mailto:firstname.lastname@usda.gov)







## LEWIS & CLARK CONSERVATION DISTRICT

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