



# The Explorer

The Official Newsletter of the Lewis & Clark Conservation District

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Winter 2018

## The 2018 Winter Grazing Seminar

The Lewis & Clark CD is hosting the 2018 Winter Grazing Seminar. Addressing current issues from across the state, we anticipate a lively crowd and packed agenda.

Topics include:

- Grazing after Fire
- Conifer Encroachment in Upland and Riparian Areas
- Young People in Ag
- Grazing Leases
- Ranch Succession Planning
- Economics of Mineral Supplementation
- Monitoring and more

Please plan on joining us February 6 and 7, 2018 in Helena! For more information contact Chris Evans at 406-449-5000 ext. 112 or via email at [lccd@mt.net](mailto:lccd@mt.net). Early registration ends January 22, and Hotel Room block ends January 15. So HURRY!

## Sevenmile Creek Restoration Project - A Gift for the Holidays



Figure 1 Excavator Opening Floodplain

Jeff Ryan and Chris Evans, Lewis & Clark Conservation District  
Mike Sanctuary, Confluence Consulting

As part of their *Peaks to Creeks Initiative*, the Prickly Pear Land Trust (PPLT) acquired a 350-acre parcel along Sevenmile Creek and a 200-acre parcel along Tenmile Creek in early 2016. PPLT quickly identified an opportunity for restoration work along the stream, which had been impacted over several decades by heavy grazing, removal of streamside woody vegetation, and channel straightening. To determine the most appropriate restoration approach, PPLT hired Karin Boyd of Applied Geomorphology, Inc. to conduct a geomorphic assessment of the 2.2 miles of Sevenmile Creek within the parcel and develop a series of restoration alternatives. The results of this

assessment provided PPLT a phased approach to restoring riparian vegetation and floodplain connectivity while reducing fine sediment inputs to the channel. The restoration project is located approximately 1.5 miles northwest of Helena and parallels Birdseye road for about 1.5 miles until it crosses the road on the northwest end of the project. The lower reach terminates at Head Lane.

The property the restoration project is on has quite a history. It was originally military land associated with Fort Harrison. A couple of decades ago it was traded to a local developer for properties he had within the Fort Harrison training area. The developer then bulldozed out most of the willow along the creek which prompted the Lewis & Clark Conservation District (L&C CD) to successfully file a violation against him. The property was never developed into home sites but was heavily grazed for decades by cattle and bison. Recently the military acquired the property from a new landowner through a program they now have to try to limit development near their training area and then gave the property to PPLT.

Collectively, all these activities caused severe impacts to the stream. The loss of much of its streamside woody vegetation caused massive erosion and extreme down cutting of the stream (incision) that disconnected the stream from much of its floodplain. The stream has spent decades eroding banks trying to establish a new floodplain.



Figure 2 Bank work

PPLT teamed with Montana Aquatic Resource Services (MARS), a statewide provider of in-lieu fee stream and wetland mitigation credits to fund restoration actions on the upper two reaches of Sevenmile Creek. The restoration plan for Reach 1 and 2 of Sevenmile Creek included:

- Removal of 18 small rock barbs to renaturalize the channel's banks and allow it to freely migrate across its floodplain
- Creation of 0.4 acres of floodplain benches to improve connectivity between the creek and its floodplain
- Stabilization of 250 feet of severely eroding banks by constructing coir wrapped soil lifts and transplanting mature willow clusters
- Installing 1,350 willow sprigs along segments of the channel where woody vegetation was sparse
- Installing 160 nursery plants, including woods rose, snowberry, chokecherry, sitka alder, and bebb willow within the newly excavated floodplain benches
- Spreading woody debris across the new floodplain benches to increase roughness and create micro-habitat features
- Seeding floodplain benches with native wetland seed mixes
- Seeding upland areas disturbed during construction
- Establishing a deed restriction to permanently protect a riparian buffer along both sides of the channel
- Noxious weed management, including herbicide applications and biological control methods
- Installation of livestock fencing along the southeast corner of the parcel to allow for grazing away from the protected channel and riparian zone

These restoration actions are anticipated to generate sufficient mitigation credits to offset unavoidable stream impacts permitted by the Army Corps of Engineers in other parts of the

Missouri/Sun/Smith watershed. MARS will monitor the project for at least five years to determine whether the project meets a number of success criteria, which will trigger release of these credits by the Army Corps.



Figure 3 Roughened Channel

the floodplain in numerous locations and the addition of thousands of willow and other riparian plantings. The new floodplain incorporates considerable woody material and plantings to roughen it which contributes to sediment deposition and reduces erosive hydraulic energy during flood events. Eroding banks were also restored. Most of this work was accomplished in late November and early December.

The last phase of this restoration is currently in the permitting stage and will be very different from this design. Stream incision is much more severe than the two upper reaches just restored so most of this reach will involve construction of a new stream channel up in the valley adjacent to the existing degraded channel. If permitting can be completed, a construction window in early spring is anticipated. We will do a follow up story on this work and might even do a workshop on a portion of it that will allow participants a literal hands-on experience with this kind of project

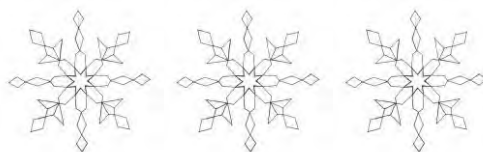
It will take a few years, but ultimately the riparian areas will flourish with new growth providing excellent wildlife habitat and the restored floodplain and stream channels will enhance fisheries. PPLT's intention to open this area to the public after restoration is complete will definitely be a "gift" to the citizens of Helena and Montana to enjoy.

PPLT retained Mike Sanctuary of Confluence Consulting to prepare final designs, submit regulatory permit applications, and oversee construction of the project. Confluence subcontracted StreamWorks, an excavation contractor specializing in stream and river projects to construct the project and install vegetation. The project was completed over the course of five weeks in November and December, 2017. Nate Kopp with PPLT coordinated the numerous volunteers to help cut approximately 1300 willows for the project.

The design on these two upper reaches is pretty basic and the kind the Conservation District encourages and readily permits under our 310 permitting program. It involves opening up



Figure 4 Willow Cutting Volunteers

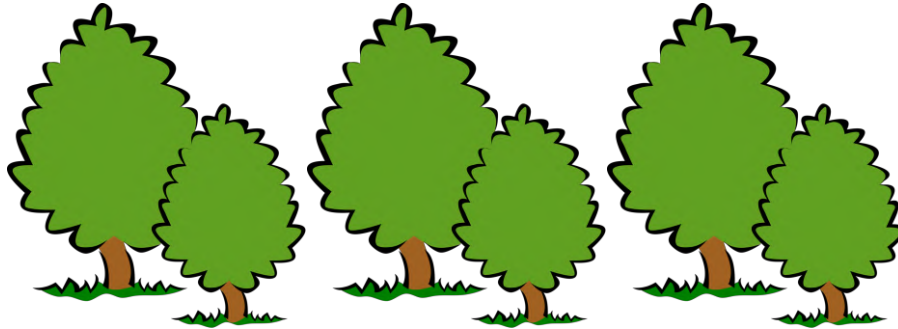


## PARTNER NEWS

### NRCS

The Natural Resource Conservation Service will have State Wide Special Initiative (SI) EQIP Sign up for Organics, High Tunnels, Sage Grouse Initiative, Conifer, SGI Grass to Crop, Pollinators, etc.

Sign-up deadline - Friday, Jan 19



### Get Your Conservation Seedling Order in soon!!!

Lewis and Clark County Extension

If you have a shelterbelt, wind break, reforestation, erosion control, living snow fence, stream bank stabilization, wildlife habitat or riparian planting project coming up this spring, now is the time to get your orders in for trees and shrubs from the Montana Conservation Seedling Nursery (MCSN) while supplies last. The MCSN produces tree and shrub seedlings for use in various conservation projects. Their goal is to produce and distribute, at a nominal cost, quality seedlings for non-ornamental conservation plantings in rural Montana.

Orders from landowners with 10 or more acres will be given priority before March 1st. Landowners with less than 10 acres (non-program) can place their orders anytime, but these orders will not be processed until March 1st, pending species availability. The minimum order is 250 seedlings for new plantings. When ordering solely 100 cu. in. seedlings, the minimum order is 48. Order deciduous trees and shrubs in lots of 50 and conifers and containerized stock in lots of 25. The 100 cubic inch container seedlings must be ordered in multiples of 8. MCSN's web site has species' descriptions to help in selecting the best species for your needs.

The MCSN has many tree and shrub species that are adapted to our environment. In fact, many of the species are grown from seeds that are harvested throughout Montana. You can order trees and shrubs on line <http://dnrc.mt.gov/divisions/forestry/forestry-assistance/conservation-seedling-nursery>. In order to get free shipping of your trees to your local Extension Office or Conservation District, place your orders before March 15<sup>th</sup>. The trees are delivered to the designated drop sight in April.

A conservation planting plan must be completed and approved prior to receiving the trees and shrubs. The planting plan form is available on their web site. Contact your local Extension Office or Conservation District for assistance in completing your conservation planting plan.

## Soil health workshops



The Soil and Water Conservation Districts of Montana are co-hosting Soil Health Workshops in the new year. For more information on these, contact Ann at 443-5711 or register at [www.swcdm.org/soil-health](http://www.swcdm.org/soil-health).

- January 16: Three Forks-The Gathering Place, with Brendan Rockey and Steve Kenyon
- January 17: Great Falls-Holiday Inn with Brendan Rockey and Wendy Taheri
- January 18: Billings-Big Horn Resort with Brendan Rockey and Steve Kenyon
- January 19: Miles City-Sleep Inn with Steve Kenyon and Wendy Taheri
- January 19: Sidney-Richland Co. Fairgrounds with Brendan Rocky and Derek Axten

Workshops start at 9 a.m. and end mid-afternoon.

## Conservation District Report

2017 was a very busy year for the Conservation District. Opting to forgo the Conservation District Report in our Quarterly Newsletter in favor of our Stewardship Series means making up for that in this issue.

The CD processed thirty-four 310 permit applications in 2017, along with six complaints and six emergencies. We've been working with Cascade Conservation District on a complaint that the work happened in Lewis & Clark, but the violation occurred in Cascade County. Ongoing problems in the County in regard to 310 permitting include the Stickney Creek Drainage, and response to both floods and drought depending on the time of year.

The CD board continues working with the various partner entities, including watershed groups, the County Weed District and Extension Office, neighboring Conservation Districts and both NRCS and DNRC.

The Conservation District continues their very popular Weed Cost Share Program in 2018. We also have a practices Cost Share Program which has not been used as of yet. We also participate in a number of projects which the Board designates funding toward.

Every year, the CD helps to put on the East Valley Middle School Flood Awareness Day and we plan to participate in that again in May. In addition, we are hosting the Winter Grazing Seminar and we plan to reprise the Day on the Range that we did in the Dearborn in 2017.



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