

# High Country Conservation



2019

LARAMIE RIVERS CONSERVATION DISTRICT

Winter/Spring Edition



## MARK YOUR CALENDARS

### The 11th Laramie Conservation Expo is almost here!

Join us on April 13th at the Albany County Fairgrounds for our expo that is now held every other year. The event is aimed at providing our community with information on conservation in our homes, businesses, and personal lives.

We expect over 60 exhibitors representing business, government, the non-profit sector, and the seasoned home practitioner. The products and information range from local food production, alternative energy, and conservation construction methods to wildlife management, small acreage landownership, and natural resources conservation, plus a whole lot more!

Wyoming Conservation Corps enjoyed teaching all about how rivers work using the very popular Stream Table.

There is no charge for exhibitors or the public, and food will be available for purchase. As in the past, the expo will not follow a set schedule – except for the presentations – allowing the public to experience the booths and visit with exhibitors at their own pace. If you would like a booth or more information, please contact Laura at 307-233-3269 or [laura.mcginley@lrcd.net](mailto:laura.mcginley@lrcd.net). A few highlights from the 2017 Expo:

UW Extension Entomologist, Scott Schell displayed insects and had microscopes for close up looks of some species.



The Wyoming Worm Wrangler, Erica Rogers, demonstrated vermicomposting, using earthworms to convert organic waste into fertilizer.



Indian Paintbrush Elementary School students raised funds for their garden club with handmade items and fun games made by students and teachers.



Throughout the day, 1 hour presentations and Q&A allowed attendees to learn about topics like pollinators, alternative energy, low-water landscaping, and agricultural subjects.



## Rangeland Livestock Watering Needs ~ By Martin Curry

Here in Albany County, we graze our rangelands mainly during the summer growing season. Livestock are distributed throughout ranches that are comprised of large pastures, often exceeding 2,500 acres. In these large pasture systems, most often there is very limited surface water available for livestock use. This has made providing quality water for livestock one of the most important practices employed by ranchers in Albany County.

For those who are thinking about installing a new watering tank/system to a pasture, there are a few things to consider. In what areas of the pasture does under grazing occur? What is the distance to the nearest watering source from these areas? What is the terrain of the surrounding area? Is it possible to add a tank from an existing source of water or will you have to develop a new source of water at the selected site? These are some questions to help to determine if a livestock water development will improve the grazing of an under-utilized area. The “rule of thumb” for the distance livestock will traverse away from a watering location while foraging is ½ mile in rough terrain, ¾ mile in moderate terrain and 1 mile in even terrain pastures. Younger, smaller framed livestock will travel further from water in search of forage.

The natural resource benefits of adding additional watering sources to our larger pastures are better livestock distribution, resulting in a more uniform consumption of forage. This will in turn lead to a healthier plant community. The soil health will also see improvements like less compaction and reduced erosion. The local wildlife populations may benefit from the addition of a watering source as well.

If you are interested in adding an additional livestock watering source to your operation. There is potential funding available through the NRCS - EQIP program and LRCD rural cost sharing program. NRCS and LRCD have staff available to assist in design and determining which funding source would best meet your needs. Please stop in at 5015 Stone Rd or call us at 307-745-3698 (NRCS), 307-721-0072 (LRCD).



New solar system with tire tank



Installation of new tire tank

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## LRCD Completes Microbial Source Tracking Study

By Tony Hoch

In 2012 segments of the Big Laramie River near Woods Landing (Hwy 10 to 0.3 miles upstream) and Bosler (Hwy 34 to Lone Ln.) and a segment on the Little Laramie River (Snowy Range Rd. to Mandel Ln.) were put on the EPA's 303(d) list of impaired streams for E. coli bacteria. E. Coli in itself is not necessarily toxic, but is considered by the EPA to be a proxy for the presence of other pathogens like cryptosporidium and giardia. The E.Coli we measure could come from the feces of any warm blooded animal. LRCD continued sampling after 2014 and the site at Woods Landing came up with no exceedances for two years in a row and should come off “the list” in 2020. Also in

2020, the Wyoming Department of Environmental Quality (DEQ) will start working on a guidance document called a TMDL or Total Daily Maximum Load for E. Coli in the listed segments of streams in which they will set goals for E. Coli concentrations or “loads”, to be achieved by voluntary practices, which include upgrading septic systems and developing upland water sources to keep livestock away from rivers.

In 2017 LRCD was awarded a grant from the Wyoming Department of Agriculture to employ a relatively new technology called Microbial Source Tracking or MST, which looks specifically at bacteria in streams that comes from specific animals (markers) – in our study these were: 1) humans, 2) cows, and 3) ruminants, which include cows, deer, elk, moose and pronghorn. In 2018, we took over 100 E. Coli samples over 5 months in order to help determine which samples were analyzed for MST markers (47 samples). CONTINUED ON NEXT PAGE...

### MICROBIAL SOURCE TRACKING CONT...

We observed that E. Coli concentrations can vary by over 50% in samples taken a few seconds apart and by a factor of 10 in samples taken a few days apart. We also saw that the highest E. Coli samples don't necessarily contain cow markers. No samples taken in the entire study contained human markers. All samples contained ruminant markers and the cow markers were pretty random at each location, except for Woods Landing, which contained none.

What we hope this will do is help the DEQ work with the public without pointing fingers at any particular group or industry as a source and allow LRCD to work with private landowners to do what we have been doing for almost 75 years – find solutions to natural resource issues that work for people and the environment. Contact Tony Hoch if you wish to discuss this study or have a presentation on it. Link to DEQ report with 303d list: <http://deq.wyoming.gov/wqd/water-quality-assessment/resources/reports/>



### NRCS Offers Assistance to Landowners for Wildlife Friendly Fence Projects

The Natural Resources Conservation Service through the Environmental Quality Incentives Program (EQIP) can provide technical and financial assistance to agricultural landowners to help remove and replace existing woven wire, 5-6 wire barbed fences that are impacting pronghorn, deer or elk movements during migration periods.

Under the Environmental Quality Incentives Program -wildlife friendly fence guidelines allow a maximum length fence allowed to be retrofitted is ¼ per mile of existing fence. Shorter lengths of fence are prorated, based on the maximum 1/4 mile per mile. The Wildlife friendly fence wire spacing specifications for a barbed wire fence, have a maximum top wire height of 40-42 inches above ground, with a 12" spacing between the top and 2<sup>nd</sup> wire. The bottom wire is barbless, minimum 18" above ground to reduce risk of injury to pronghorn and other big game. The top wire is marked using fence markers to improve fence visibility to reduce impacts.

Working with the landowner, NRCS staff will help identify and map problem fence areas, works with the landowner to develop a conservation plan, and EQIP contract schedule, and provides wildlife friendly fence specifications and job-sheets to follow. The landowner will have an opportunity to plan and schedule what areas of the fence project will be completed first, and can either install the fence themselves, or work with a fence contractor to install the fence, making sure the fence is installed to wildlife friendly fence specifications and design. Once the fence project is completed and certified meeting NRCS specifications, financial assistance is provided based on the EQIP contract schedule.

The EQIP program is voluntary and provides financial and technical assistance to agricultural producers through contracts up to a maximum length of 10 years. These contracts provide the financial assistance to help landowners plan and implement conservation practices that address natural resource concerns and opportunities to improve soil, water, plant, animal, air and related resources on agricultural land. In addition, a purpose of EQIP is to help producers meet Federal, State, Tribal and local environmental regulations.

For more information about NRCS EQIP and other Farm Bill programs, you can go to the website [www.wy.nrcs.usda.gov](http://www.wy.nrcs.usda.gov), or stop by the Laramie field office located at 5015 Stone Road. Phone 307-745-3698.



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**LARAMIE RIVERS  
CONSERVATION DISTRICT**

5015 STONE ROAD  
LARAMIE, WY 82070



NON-PROFIT ORG  
U.S. POSTAGE  
**PAID**  
PERMIT #9  
LARAMIE, WY  
82070

**Garden Soil Health  
Workshop**



The University of Wyoming Extension is hosting a garden soil health workshop on April 11<sup>th</sup>, 2019 from 6:00 to 8:00pm. The workshop will be hosted at the Albany County Extension office in Laramie (3520 South 3<sup>rd</sup> St., Suite A). The classroom is located near the flag pole on the west end of the fairgrounds activity building.

The workshop is intended to help gardeners of Albany County that deal with difficult soils.

Topics that will be discussed at the workshop include:

- Soil basics
- Soil nutrient issues and management for gardeners
- How to read soil test results
- Good soil management practices.

Space is limited, please RSVP to Brian Sebade or Sue Golding.  
[bsebade@uwyo.edu](mailto:bsebade@uwyo.edu), [golding@uwyo.edu](mailto:golding@uwyo.edu), or 307-721-2571



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**KIDS IN THE GARDEN  
LEARNING and  
GROWING**

Join this group and learn how to grow a great vegetable garden in Laramie! You will be actively involved in preparing the soil, planting, nurturing, harvesting and learning how to prepare some of what you grew.

**Location:** Kid's Garden at LaBonte Park  
(Between 8th & 9th on Shields Street)

**Date:** June 13<sup>th</sup>—August 11<sup>th</sup>  
(Vacations ok)

**Time:** 9:00 AM—10:30 PM

**Ages:** 6-16 Parents Welcomed!

**Cost:** Free

**Bring:** Sunscreen, water, hat & old closed toed shoes

**Sponsor:** Laramie Rivers Conservation District

If there are a large number of participants, we will offer a second class on a different day of the week. Waivers will be signed the first day of class.

Several of the elementary schools Indian Paint Brush, Linford, Bietel and Slade) will be hosting summer garden clubs. Check LRCD's website and the school for dates and times.

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