

October, 2020



## The Mountain Meadow

A quarterly publication from the  
Sublette County Conservation District



Photo by Jess Artz

Fall has arrived in Sublette County!

## Highlights in this issue

- Welcome Gabe Fancher
- A Stewardship Journey
- Living Snow Fences
- Two Eyed Seeing
- Save the Date! August 2021 Workshop

Fall tree orders open in early November. Begin your site prep and planting design this fall.

*"By working with local people who understand local problems, the best conservation measures can be accomplished."*

# From the District Manager's Chair

---

## What's going on at the District

Mike Henn, District Manager

---



Can you believe that we are finishing up the third quarter of 2020? This has been a whirlwind year that has created unforeseen challenges for everyone. Sublette County has responded to these challenges successfully in my opinion. The District was able to maintain its normal workload with little to no change throughout the field season. Coming into fall, we have completed most of our field work with landowners and land managers in the County. We are in the middle of finishing up the last of our water quality sampling as I write this article.

We have also just completed our 2019-2020 annual report and 2020-2021 plan of work. These were submitted to the Wyoming Association of Conservation District's contest, so fingers crossed we will bring home the trophy this November. I would encourage everyone to take a look at them. They can be found on our website ([www.sublettecd.com](http://www.sublettecd.com)). As we head into what is hopefully a beautiful fall don't hesitate to reach out to the District if you have any natural resource concerns.



# What We've Been up to

---

## Welcome to the Team Gabe!

---



We would like to introduce our new Resource Technician, Gabe Fancher. After graduating from Colorado State University with a degree in Soil & Crop Science in 2014 he began working as a soil scientist with the NRCS in Pinedale, during which time he mapped nearly 100K acres in Sublette and Lincoln Counties. In 2018, he returned to the family cow/calf operation in Wheatland, WY briefly stopping on ranches in Oregon and Sheridan, WY on his way there. This fall, he enthusiastically came back to Pinedale ready to assist SCCD – and we are excited to have him.

You are likely to see him out trail-running in the evenings or climbing/skiing on the weekends (with his big white Pyrenees in tow). If you see him, be sure to say hello and ask him about his hobbies: baking and woodworking.

## Scrubbing Bugs

---



Fall means its time for aquatic macroinvertebrate sampling on SCCD surface water sites! At each site staff use nets to scrub and collect "bugs" off of rocks within the riffle of a stream. These bugs are very important components of aquatic ecosystems. They are the decomposers of the system because they spend much of their life cycle breaking down and recycling organic matter back into the system. They are also an important food source for larger organisms like amphibians and fish species. Another reason to study aquatic insects is the fact that they are important indicators of the health of a water system. Some macroinvertebrates are very sensitive to slight changes in water conditions from pollution, habitat changes or disturbance events and will fall out of the system if one or more of these is present.

# A Stewardship Journey

---

## Steeped in Tradition

---

Shari Meeks, Range Program Manager

Long ago, there was a man named Sam that grew up steeped in tradition. When Sam was in his 20's, an older gentleman named Joe moved to town that had a different approach to things. Joe grew up learning the same things Sam did, but Joe also was not afraid to try new things. Sam did not care for this new way of thinking and was unreceptive to this man and his new way of doing things.

One day, Sam was in the general store. And there was Joe! The man that Sam did not agree with. Sam did everything he could to avoid Joe. He refused to make eye contact and went as far to avoid Joe as going down other aisles that he did not need anything in. Sam turned the corner on aisle 5, and Sam had nowhere to go, nowhere to hide. His cart bumped into Joe's. It was almost as if Joe had read Sam's cover and intentionally stood at the end of aisle 5!

So there, in the middle of the general store, Joe gently spoke to Sam and said "Sir. It is known all over town that you do not agree with my philosophies, but why is it that you are so opposed to a different way of thinking?" Sam was astonished that the man had the nerve to confront him and could not muster up a reply. Sam let out a disgruntled "humph" and proceeded to walk out of the store- leaving his supplies right there in the cart.

Sam spent many days and nights after, considering the candor of the man in the general store and decided he would maybe just invite Joe over for coffee to hear him out.

That very next day, Joe came to Sam's rickety old cabin, where the two of them spent hours mulling over their differences in philosophy. It came about, that Joe became a mentor and friend to Sam. Eventually Sam weaved a new philosophy into his long-time traditions of living. Sam had a change of heart... a renewing of the mind one might say, even after Joe was no longer around. Not only did Sam's change of heart impact him personally, but it impacted generations as he became a famous teacher and author.

# A Stewardship Journey

---

## Who is Your Joe?

---

So, let us apply this story to natural resources management. For the most part, communities across the US are steeped in tradition. Just like Sam, some of us are resistant to modification, or new ways of thinking. Even though there has been much change in the industries (as far as technology is concerned), I wonder if there has been much change to the way we manage the natural resources that sustain living?

If you are a farmer, one could ask, how long have you planted the same crops year after year? How long have you irrigated the same way every year?

If you are a rancher, one could ask, how long have you rotated the same way through pastures and allotments year after year?

If you live in town, one may ask, do you manage your lawnscape the same way year after year in terms of fertilization and watering?

One may not realize that there are options to management (whether in town, on a small acreage, or on a large farm or ranch). Or maybe you realize there are options but you don't know where to start or you simply can't quantify the change.

Let me share some ideas with you in response to the questions I posed above.



*A Stewardship Journey- Continued on next page*

# A Stewardship Journey

---

## Starting Your Journey

---

If you are a farmer, one could research the possibility of planting different crops on alternate years. This is beneficial to soil health and may just increase production of the ground. Irrigation is an interesting one. When we irrigate, are we considering the temperature of our soil? Does the water we apply reduce soil temperatures enough to stall plant elongation? We would want to weigh the water rights portion of this with production. What happens if I can increase production by applying water later? What happens to my water right? Does it matter?

For the rancher, timing and duration of grazing are two very important factors for rangeland health. If we stay too long, too many years in a row, we can reduce the landscape's ability to produce. If we hit the same pastures the same time every year, we can also reduce the landscapes productive capability. Eventually, without flexibility, landscapes, in the long term, will transition into less desirable and less functional plant communities.

How about for the town folks- we don't have scarcity of water in Sublette County because we are blessed to live at the headwaters of many different drainages. But over time, are our lawns going to be able to persist? Are we planting appropriate species that are not water dependent or water thirsty? How about rain barrels? Can we utilize them to water our lawns to reduce the need for additional water resources?

Stewardship comes in all forms. In order to ensure that we are sustainably using the resources around us, we never want to get into a paradigm where we never look at alternatives to management... no matter if we own a .25 acre lot in town or a 15,000 acre ranch. Now, don't get me wrong. There is no "one size fits all answer". With landscapes, response is not instantaneous. And with any large or small implementation of change, it can take time to get where you want to be. But without asking the question, "can we do things better?", we will never give opportunity to implement change if, when and where its needed.

If you would like some ideas on how to be the best steward of the resources possible, the conservation district is here to help. We likely don't have all the answers, but our purpose is to help Sublette County be successful in the stewardship of the natural resources that not only sustain us, but those that also benefit from our stewardship (i.e. Recreational use, tourism, water, wildlife, downstream users, etc.).

We look forward to partnering with you on this stewardship journey.

# Living Snow Fences

---

## Survival Tips and Considerations

Sno Ann Engler, Tree Program Manager

Now that winter is starting to loom ahead it may be a good opportunity to think about where a conservation tree planting might be beneficial on your property. Keeping trees and shrubs alive for the long haul in Sublette County can be challenging. For trees and shrubs to survive in our harsh conditions, they must be hardy and well cared for. It takes the right species selection for the soils on your planting site, plenty of moisture, diligent weed control, and protection from wildlife browsing.

Planting multiple rows of trees and shrubs to stockpile the snow before it fills up a road or driveway is known as planting a "Living Snow Fence" (LSF). The best type of trees for stopping snow are the type that keep their density in the winter. Rocky Mountain Juniper, Douglas Fir, and Engelmann Spruce may be some good choices for our area. A good dose of fall water throughout the root zone just before the ground freezes up will do wonders for survival. For the conifer plantings, an anti-transpirant applied in the fall to coat the needles as well as placing some type of wind shelter on the windward side of the planting should help cut down on that drying out process over winter.

Deciduous trees and shrubs also work well in a LSF. Density is important. Caragana is probably the hardiest shrub to plant in our area. Other shrubs such as Buffaloberry, Serviceberry and Honeysuckle are also possibilities, depending on the specific site. If the area has access to plenty of ground water during most of the growing season, narrow-leaf cottonwood, golden willow or native willow can also work well for a living snowfence – and they grow more rapidly!

If the soil does not have shallow groundwater, artificial watering is a must. The easiest way to water (if pressurized water is available) is drip irrigation. This conserves water, places it where you want it, and applies the right amount to penetrate into the root zone.

Soil type and alkalinity play major roles in growth and survival too. Its always a good idea to check soil type and pH first before deciding on what species to purchase. Weed control is important for long term survival. Some type of weed barrier is essential. This practice will keep the nutrient and moisture competition at a minimum to give your seedlings a fighting chance. The last consideration (and it's a big one) is protection from browsing critters: cows, horses, deer, moose or antelope. Fencing from livestock is a necessity, but that doesn't necessarily keep wildlife out. A wildlife-proof fence has got to be placed in the formula for success.

These are a few principles for tree survival and if they're followed, there's a good chance they'll make it. For more helpful information you can download a tree planting guide from our website at: [www.sublettecd.com](http://www.sublettecd.com)

# Biology Corner

---

## Two Eyed Seeing

Melanie Purcell, Wildlife & Habitat Program Manager

---

I recently read an article in The Wildlife Professional magazine called ‘Two-eyed Seeing’, Interweaving Indigenous Knowledge and Western Science. The article eluded to the importance of integrating Traditional Ecological Knowledge (aka TEK) with Western Science. Scientific studies usually occur over short time frames due to funding or politics however traditional knowledge can span generations. Thus, professionals are learning to change their view that these two types of information are incompatible to seeing them as complementary. Let me briefly describe one example discussed.

This instance included work done in the Heiltsuk territory of British Columbia where the provincial government worked to develop models to predict the best places to find grizzlies to manage timber practices. The Heiltsuk community understood these models were often not accurate so they set out to create a new habitat model that combined TEK and Western Science. This approach minimized disturbance to the animals and respects according to customary law. This was accomplished by collecting DNA samples of grizzlies from hair snares along the Koeve River to gain a better understanding of genetic diversity and population size of bears in the area, while also tapping into generations of Heiltsuk knowledge through interviews with elders about where they had seen bears and what species they had harvested over many years. The data indicated that the area the local grizzly population used was much larger than researchers had anticipated, it gave the community confidence in granting logging concessions, and it opened the door to how they build relationships with other people that operate in their territory.



This got me thinking about our own area and the agricultural producers, hunters, and other naturalists that have been watching our wildlife for generations. When researchers began following

mule deer to map the migration corridor, one landowner told me of how the deer that migrate through his property today once migrated further to the west. And once that area began being developed into what is now a subdivision, the deer started moving farther east through his property. Another landowner told me about how when she was a kid, her family noticed areas on the ranch where animals would get hung up in fences. So, they would do things like tie wires together during migration in those locations so the animals could pass through.

I always love talking with landowners about their experiences and the things they have seen over the years. Listening to generational knowledge is an important building block in relationships and partnerships. I always try to keep this in mind when talking with landowners about wildlife friendly fence options or other projects. I can easily look at a map and see where the corridor is outlined, but often landowners know where animals cross on their property, where they hang out, or how it has changed over the years. Sometimes they know why and sometimes not. In any case, this knowledge is inevitably important to informing the science that we rely on to manage natural resources.

# NRCS Update

## Conservation—By the Numbers

Jennifer Hayward, District Conservationist

---

Conservation occurs in Sublette County ranch by ranch, family by family, one day at a time. Here is a snapshot of the conservation, or steps to implementation conservation, that has occurred over the last 12 months:

- **Over 50 site visits completed**
- **Brief technical assistance visits: >150 phone calls or drop in assistance**
- **23 Applications to evaluate for Financial Program Assistance**
- **12 contracts obligated to address resource concerns and to implement conservation practices: \$1,611,959**
- **Conservation Plan Acres Written: 86,226**
- **Conservation applied on acres in Sublette County: 270,252**
- **2 Easement Applications Funded - \$1,700,00**
- **Certified over 120 Conservation Practices**
- **Payment to Participants in a Financial Contract for practices or installed or completed: > \$700,000**

Most popular conservation practices in 2020 include: Fence, Forage Harvest Management, Solar Pumping Plants, Herbaceous Weed Treatment & Prescribed Grazing



Natural Resources Conservation Service

# NRCS Update

## Weeds – They still matter!

Jennifer Hayward, District Conservationist

---

Today I picked a Black Henbane plant that had cured on the stalk and still held numerous seeds held within their pods. Guess how many seeds can be produced by a single Black Henbane plant? I used a garbage bag and was very careful because this plant is toxic! But, there was only one plant. Unfortunately, a few seed heads had fallen on the ground so there will likely be more plants onsite next year that the landowner will need to keep an eye on. Conversely, I happened upon a 0.2 acre patch of solid musk thistle that if just one person had stopped to remove the plant when it was all by itself, it would still be a sagebrush-mixed grass plant community just as the thousands of acres around it are. If you see a weed, take care of it. It doesn't matter who owns the land – public or private. The thought that it's someone else's responsibility is not being responsible. It is worth the time and effort before it becomes an issue that can't be addressed with one plastic bag, a pair of gloves and is free. By the way, a Black Henbane plant can produce 10,000 – 50,000 seeds per plant. That's a whole lot of inexpensive prevention, so remove weeds early and often!



**SAVE THE DATE → AUGUST 2021!**

# One Rock at a Time: Slowing Rangeland Erosion

## LOW-TECH MESIC HABITAT RESTORATION WORKSHOP



**Objective:** Provide economical tools for landowners to adopt low-tech restoration technologies to build resilience and restore critical mesic habitats in semi-arid sagebrush rangelands benefiting both wildlife and livestock on working lands.

This project is made possible with funding support from the National Fish and Wildlife Foundation.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's Target Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. The USDA is an Equal Opportunity Provider, Employer and Lender.

Contact: Melanie Purcell  
Wildlife & Habitat Program Manager, Sublette County Conservation District  
307-367-2364  
[mpurcell@sublettecd.com](mailto:mpurcell@sublettecd.com)



# The Biology Behind the Beauty

## Colors of Change

Jess Artz, Range Specialist & Education/Outreach Coordinator

As the temperatures begin to drop at night, deciduous trees (trees that seasonally shed leaves) start to put on the age-old color changing show that brings joy and beauty to the landscape every year in Sublette County. We know these color changes mean that winter is around the corner but why do the leaves change color? What is



happening inside that tree and those leaves to cause this phenomenon? Let us take a dive into the biology behind the beauty.

During the growing season tree leaves are the main place where food and energy are made in order to support the growth of the tree during that year. This food is made in cells within the leaves containing chlorophyll. Chlorophyll is green and therefore gives leaves their green color during the summer. Along with the green pigment of chlorophyll are yellow and orange pigments that are masked during the summer by the large amounts of chlorophyll that are using sunlight to make sugars and starch that the tree needs to live. As temperatures begin to fall and day length shortens, plants begin to break down chlorophyll into smaller particles which allows these other pigments to rise up and show through.

It takes a lot of energy to make chlorophyll. So, by breaking down chlorophyll and storing it for winter, trees are able to save energy. Then, when it's warm and sunny enough to grow again, the plants can use those molecules to remake the chlorophyll.

The last thing that happens before a leaf falls is a layer of cells develops and gradually cuts through the tissues that hold the leaf to the tree. The tree seals the cut which allows the wind to blow the leaves to the ground. New green leaves will then sprout the next year as the cycle starts all over again and chlorophyll production begins.

# Kid's Corner



ILLUSTRATION FROM  
**THE WONDROUS WORKINGS  
OF PLANET EARTH**  
A NEW BOOK BY RACHEL IGNOTOFSKY

VISIT: [RACHELIGNOTOFSKYDESIGN.COM](http://RACHELIGNOTOFSKYDESIGN.COM)

@RACHELIGNOTOFSKY  
@IGNOTOFSKY





Find us on Facebook!

# Who Are We?

---

## **Sublette County Conservation District Board of Supervisors**

Coke Landers-Chairman

Darrell Walker-Vice Chairman

Dave Pape-Sec/Treasurer

Meghann Smith

Milford Lockwood

## **Sublette County Conservation District Staff**

Michael Henn, District Manager

Sno Ann Engler, Office Manager/ Tree Program Manager

Melanie Purcell, Wildlife & Habitat Program Manager

Shari Meeks, Range Program Manager

Jessica Artz, Range Specialist/ Education & Outreach Coordinator

Gabe Fancher, Natural Resource Technician

## **Partners: USDA / NRCS Staff**

Jennifer Hayward, District Conservationist, Shirleena King, Administrative Assistant

Karen Clause, Multi-County Range Management Specialist

Bryan Christensen, Ecological Site Specialist

Dillon Gray, Autumn Boxum, Taylor Kepley, Soil Survey Team

---

*Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's Target Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. The USDA is an Equal Opportunity Provider, Employer and Lender.*

217 Country Club Ln. / P.O. Box 647 Pinedale, WY 82941

Phone: 307-367-2364 Email: [sccd@sublettecd.com](mailto:sccd@sublettecd.com) Website: [sublettecd.com](http://sublettecd.com)