



Weston County Natural Resource District Newsletter

OCTOBER 2018

WCNRD ACCOMPLISHMENTS FY 2017-2018

District Supervisors

Jerry Varner-
Chairman

Alicia Redding-
Vice-Chairman

Emily Hartinger-
Treasurer

Gene Norman-
Supervisor

David Tysdal
Supervisor

District Staff

Lacey Sloan, Coor-
dinator

Austin Sommerville
NWTF Forester

District Hours

Monday-Friday
7 a.m. – 3:30p.m.

USDA-NRCS Staff

Paul Eitel
NRCS- District
Conservationist

- \$170,000 was secured in grants to fund 24 Forestry Projects that helped landowners manage 578 acres
- 140 participants in Hazardous Waste Day and donated 283 canned goods to Bread Office
- \$30,000 was spent on 6 Rural Cost Share applications to improve range land health and water distribution.
- 1 Beef Symposium was held free of charge where 12 presenters provided information to 49 landowners.
- WCNRD worked with the Beaver Creek Watershed Consultants and the Wyoming Water Development Commission to secure funding to complete the Beaver Creek Watershed Study. We had 48 landowners participate and suggest over 80 projects. Three of these projects were partially funded through the state to put in 14 tanks, over 6 miles of pipe, and a water storage tank on the National Grasslands.
- Organized 3 city clean up days in Newcastle WY.
- Guest taught k-5 Science and explored animal tracks, furs, bird nests, and dissected owl pellets.
- Participated as a guest speaker in the Weston County Library Summer Reading program. Discussed beavers and beaver dams.
- Participated in the Weston County Fair fun night and taught kids and adults about invasive weeds using an interactive 4 Wheeler Search.
- 3rd Annual National Trails Day Hike and Fall Colors Hike(over 40 total participants).
- Was accepted into the WY L.E.A.D Program to diversify my knowledge base to better serve landowners in Weston County.
- Utilized Furs and Educational tools at 6 events to reach 250 kids and adults.
- Continued to provide Conservation Tree Sales.
- Held Annual Rural Well Water Testing in Spring 2018.
- Created new cost share opportunity for Septic Pumping to deter water pollutants from the Water Shed.

* If you have any programs or ideas feel free to share them with us! Send to : lacey.sloan@wy.usda.gov

NRCS UPDATES

The EQIP program is a voluntary program that offers financial and technical assistance to eligible agricultural producers to facilitate adoption and improvement of natural resource management, and to increase private land resources sustainability. The program offers financial incentives to adopt conservation practices that improve soil, water, plant, animal, air, energy conservation and related resources. Projects to be considered for this early funding cycle include:

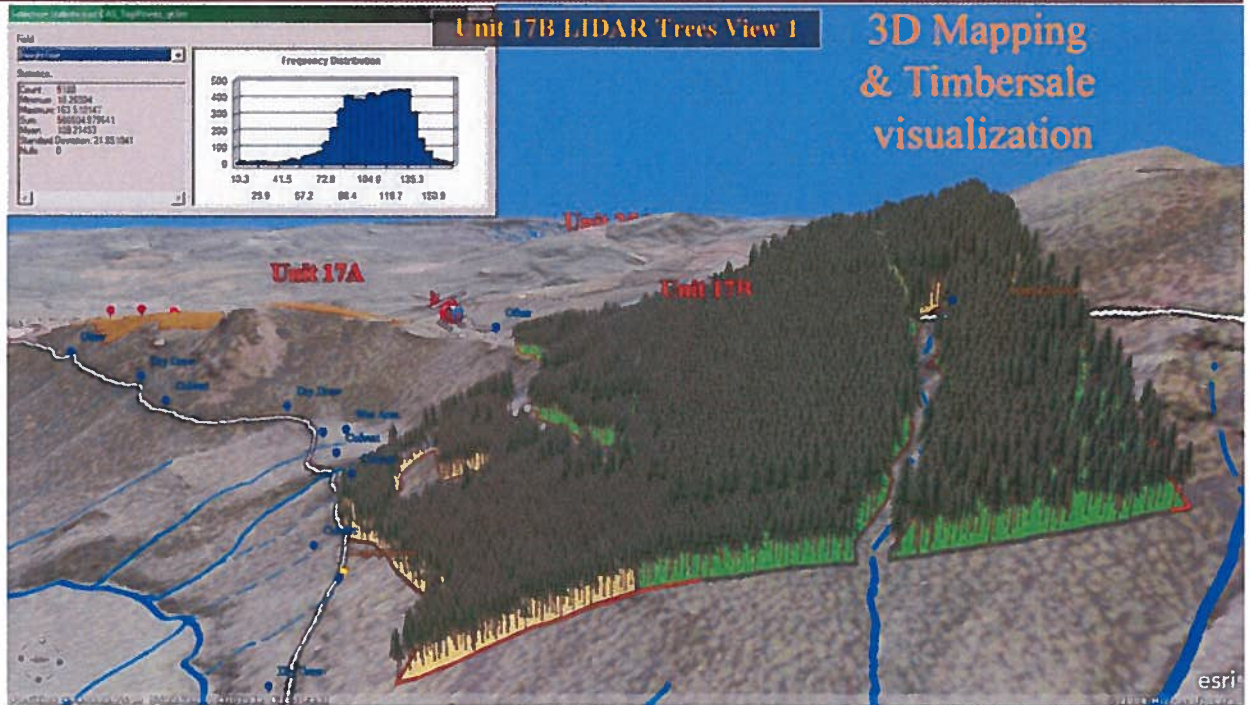
- *High Tunnel:* High Tunnel Systems for crops assist producers in extending the growing season for high value crops and increase local food production.
- *Working Lands for Wildlife Sage Grouse Initiative:* This Working Lands for Wildlife (WLFW) initiative focuses on coordination with ranchers to improve habitat for sage-grouse and promote healthy grazing land conservation practices.
- *RCPP – With EQIP only: Northeast Wyoming Forest Resiliency Project (Thinning and Meadow Retention).*

To be considered in this FY2019 first funding cycle, applications must be received prior to the cut-off date of November 2. Applications submitted after the cut-off date or for other fund pools will be considered later in the year. Contact Paul Eitel with the local NRCS office to get your applications in before the NOV. 2nd DEADLINE. 307-746-3264 ext 110

LIDAR FORESTRY APPLICATIONS

BY AUSTIN SOMMERVILLE
NRCS COOPERATIVE FORESTER

Forestry technology has come a long way in the last three decades. Global Positioning Systems (GPS) became standard in the 1990's, while Global Information



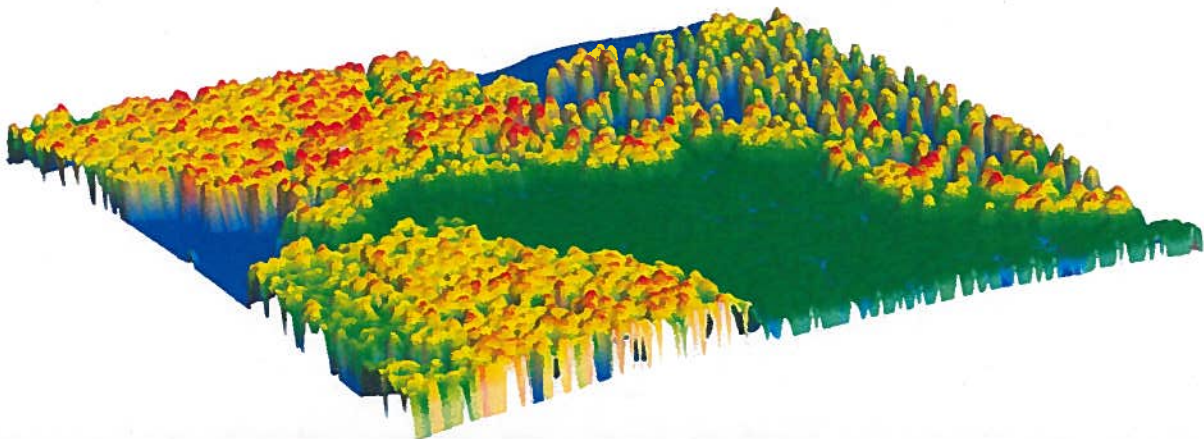
Systems (GIS) became standard in the 2000's. The latest technology to make inroads into forestry science is lidar, or light detection and ranging.

Lidar is similar to radar however, it utilizes lasers instead of radio waves. Although lidar scanners are typically flown by airplanes, both fixed-wing and multi-rotor unmanned aerial vehicles are becoming more common, particularly for surveying smaller areas. Each laser pulse can be reflected back to the sensor multiple times producing a dense cluster of points called a point cloud. Scanners can transmit and receive up to 500,000 pulses per second, giving lidar the ability to penetrate the forest canopy and eventually reach the ground. The result is a 3D map capturing ground terrain, creeks, rivers, roads, and vegetation characteristics.

Ten years ago, a good GPS unit cost hundreds of dollars, but now most of us can get the same performance with our cell phones. Unlike cell phones, most of us do not use lidar daily, so the technology may take more time to develop. However, it's likely that we will see more use of lidar in forest management in coming years.

Forest planners have typically collected stand data on the ground using point sampling with each point representing 10 acres. This can be a very time-consuming process. Sampling 200 acres can take one cruiser an entire day, while inventorying 20,000 acres can take months. A lidar scanner and airplane reduces this time to only hours. Lidar also has the capability to more accurately estimate stand volume than point sampling because lidar covers the entire stand, where point sampling does not.

Norway, Sweden, and Finland have been using lidar for forest inventory since the early 2000's. Its use has been slower to catch on in the United States for a couple of reasons. While lidar is effective for estimating stock density and biomass, it is not effective at identifying tree species or tree ages. This has been less important in Scandinavia where only a few tree species exist. American forests are generally more diverse and until recently, lidar use has been limited in the United States. Another barrier to widespread use of lidar has been the cost. Lidar data acquisition is expensive and it has only been cost-effective for large acreage inventories. As the technology advances, the cost has slowly decreased to bring it more in-line with traditional point sampling. As the size of lidar units get smaller, drones become a practical low-cost substitute for aircraft, which will eventually make lidar a cost-effective option on smaller projects.



Forestry Funding Update for 2019



As you know, the WCNRD applies annually for Forest Management funding through a Wyoming State Forestry Grant. The past two years we have received \$170,000 annually to assist landowners in forest management. This equates to 578 acres of thinning completed here in Weston County with this funding. We are currently still wrapping up our projects to be completed in the spring of 2019. We did receive notice that due to an extensive fires season here in Wyoming there will not be any grant funds available to apply for until August 2019. This means the WCNRD will not have access to forestry funding until January of 2020. We will be here for all your technical needs as always!



Invasive Plants

By Addy Jerry
WCNRD Newcastle High School Intern

Many people don't really know anything on invasive plants so, here is some background information on invasive plants. There really isn't a lot of history on invasive plants; it all started back in 1727 when the English Ivy appeared in America up until now. In 1920, the dangers of importing invasive animals and plants that had accidentally or deliberately shipped into the United States and had gotten caught by congress were fined. Congress would fine the shippers high amounts of money to try and put a stop to the shipment of invasive. In the early 1880's Salt Cedar was introduced for its ability to grow rapidly. In the late 1980s the nature conservationists had began working and introducing invasive plants and animals; Farmers, forest, highway departments, parks, and homeowners have used many things to stop the growth of invasive plants. About 180 years ago, the breaking of Pangea had separated which involved the different species and allowed them to take different plants. The European colonists were the first people to recognize invasive species such as plants because when they had gotten to America, they had seen and found plants they had no idea what they were because they had n't ever seen the strange plants and animals. The book Invasive Plants by Sylvan Ramsey Kaufman and Wallace Kaufman stated that 25 to 50 percent of America's plants and animals are invasive and these invasive plants so far in todays history has taken over 17 million acres of land and 20 to 30 new invasive plants are introduced daily. In 1990, Bill Clinton created a council that was called the inter-agency national invasive species management plan or known as INISMP. There are many shrubs, vines, grasses and sedges, and ferns that are invasive in the United States and even in North America. People should care about invasive plants and animals because if they come up on something and not know what it is, it would be good if they had the knowledge of what different types of invasive there are in their area. People should be cautious of them because they can be harmful and if the species spreads enough it can kill off certain things which could be very much needed for humanity. Its important not to ship invasive to other countries or shipping it anywhere that it is not usually at can be very dangerous for animals and society if it gets out of hand.



Bat Workshop

When: October 23, 2018 at 12:00 (noon)

**Where: 1225 Washington Blvd in the
Conference Room**

These winged mammals are incredibly beneficial to our ecosystem!
So why not learn what you can do to help bats out!

Information provided will include:

- **Habitat features in our region**
- **Migration patters in our region**
- **Regional study results**
- **White-nose syndrome information and how it affects bats**
- **Specific info on the threatened Northern Long Eared Bat**
- **What can be done to support healthy bat populations**

Presentations by:

Nichole Bjornlie-Nongame Mammal Biologist Wyoming Game and Fish

Kim Dickerson-Ecological Services, Cheyenne WY, U.S. Fish and Wildlife Service



OCT 15, NOV 6
NOV 27, DEC 17

5:00-7 pm
each session

**RANCH
 PROFITABILITY
 WORKSHOPS (FREE)**

**Participants encouraged to attend all sessions as they build off of previous lessons. First two sessions are most important to understand concepts and learn the economic tools.*

USDA Service Center
1225 Washington Blvd. Suite 3
Newcastle, WY 82701

Participants will work through a series of exercises to calculate production costs for each of their ranch's enterprises. Instructors will work with individual participants to isolate and understand how costs and depreciation impact the ranch's cash flow and balance sheet.



Overall ranch profitability is the sum of numerous ranch activities

Knowing the contribution of each ranch enterprise is essential

Ranch Business

- +Cow/Calf*
- +Hay Production*
- +Heifer Development*
- +Land*

= Overall Profitability

RSVPs are appreciated (call or email) Please contact with questions

Tris Munsick
tmunsick1@gmail.com
 (307) 751-8174
 or
 Blake Hauptman
bhauptma@uwyo.edu
 (307) 283-1192



Contact us...

Weston County Natural Resource District
1225 Washington Blvd. Suite 3
Newcastle, WY 82701
Phone: 307-746-3264
E-mail: Lacey.sloan@wy.usda.gov

**Bulk Rate
U.S. Postage
Rate
Newcastle, WY
Permit No. 52**

The mission of the Weston County Natural Resource District is to provide leadership in conserving the natural resources in Weston County by providing information, education and technical assistance to meet the needs of our users.

Meetings are held the second Tuesday of every month at 3:00 p.m. at the USDA Service Center. Members of the public are welcome to attend.

The U.S Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202)720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W, Washington, D.C. 20250-9410 or call (800)795-3272(voice) or (202)720-6382(TDD). USDA is an equal opportunity provider and employer

UPCOMING EVENTS

October

- 15- Ranch Profability Workshop (5-7pm USDA Conference Room)
- 16- Final Beaver Creek Watershed Meeting (5-7pm USDA Conference Room)
- 23- Bat Workshop (12-1pm USDA Conference Room)

November

- 6- WCNRD ELECTIONS (7am-3pm at WCNRD Office)**
- 12- OFFICE CLOSED (Observance of Veterans Day)
- 13- WCNRD Board Meeting (3pm- the cows come home)
- 22- OFFICE CLOSED (Observance of Thanksgiving)
- 27-Ranch Profability Workshop (5-7pm USDA Conference Room)

December

- 17-Ranch Profability Workshop (5-7pm USDA Conference Room)

**** Be looking in the newspaper, online, and in your email for upcoming tree order forms****