

# RANGELAND

# NEWS



TO FOSTER ADVANCEMENT IN THE  
SCIENCE AND ART OF RANGELAND  
MANAGEMENT

NEVADA SECTION – SOCIETY FOR RANGE MANAGEMENT

1 of 2 November 2015

## NEVADA SECTION OFFICERS

<b>RYAN SHANE</b> <i>President</i> (775) 934-5946 (c) <a href="mailto:rsshane@gmail.com">rsshane@gmail.com</a>	<b>TIM RUBALD</b> <i>President-Elect</i> (775) 790-0035 (c) <a href="mailto:timrubald@dcnr.nv.gov">timrubald@dcnr.nv.gov</a>	<b>MARK FREESE</b> <i>Past President</i> (775) 560-2414 (c) <a href="mailto:markfreese@ndow.org">markfreese@ndow.org</a>	<i>Executive Vice President</i> vacant
<b>ANN BOLLINGER</b> <i>Secretary</i> (775) 230-3297 (c) <a href="mailto:ABollinger@carson.org">ABollinger@carson.org</a>	<b>ERICA FREESE</b> <i>Treasurer</i> (541) 231-5267 (c) <a href="mailto:ericafreese66@gmail.com">ericafreese66@gmail.com</a>	<b>MAGGIE ORR</b> <i>Newsletter Editor</i> (775) 726-3742 (h) <a href="mailto:sideoatsg@yahoo.com">sideoatsg@yahoo.com</a>	<b>NEVADA SECTION WEBSITE</b> <a href="http://nevada.rangelands.org">http://nevada.rangelands.org</a> submissions to Steve Foster at <a href="mailto:fosters@unce.unr.edu">fosters@unce.unr.edu</a> indicate "for the website"

Zone 1: Chris Jasmine, [chrisMjasmine@gmail.com](mailto:chrisMjasmine@gmail.com)  
Zone 3: BJ Raymond, [braymond@fs.fed.us](mailto:braymond@fs.fed.us)  
Zone 5: Rob Pearce, [robert.pearce@ca.usda.gov](mailto:robert.pearce@ca.usda.gov)  
Zone 7: Rick Orr, [bbwheatgrass@yahoo.com](mailto:bbwheatgrass@yahoo.com)

Zone 2: Meagan Carter, [MeaganCarter@fs.fed.us](mailto:MeaganCarter@fs.fed.us)  
Zone 4: Genie Montblanc, [emb@cabnr.unr.edu](mailto:emb@cabnr.unr.edu)  
Zone 6: Jake Tibbitts, [natresmgr@eurekanv.org](mailto:natresmgr@eurekanv.org)  
(see map on last page for zones)

**This is #1 of 2 newsletters; coming soon will be elections, UNR Range Club, Part 2 of the outstanding Summer Tour, and other news.**

## PRESIDENT'S PONDERERS

Since my last pondering in the newsletter, it seems that I have done some more, especially in light of some developments:

- The sage-grouse EIS's require the agencies to treat many thousands of acres of land each year for the decades to come <https://goo.gl/82ySvv>,
- the Conservation District's NRCS-RCPP grant application for creating strategic and action plans for each of the 28 conservation districts in Nevada did not make the short list for award,
- the Nevada Sagebrush Ecosystem Program was provided with \$2M by the legislature and Governor for developing conservation credits (preserving, improving, and restoring the function of sagebrush ecosystems) that will eventually be incorporated into the conservation credit system. The system has nearly completed processing its first credit property, and is working on an MOU with BLM and USFS to work out the details of the debit side of the system for consumptive land users that need to

purchase credits. The Sagebrush Ecosystem Program is also pursuing the development of a method for landowners to be able to develop credits on their public land grazing allotments <http://sagebrusheco.nv.gov/>,

- The Department of the Interior created and is taking actions to follow An Integrated Rangeland Fire Management Strategy <http://goo.gl/UwOfpv>,

- The Stewardship Alliance or Northeast Elko County (SANE) has completed a strategic action plan for 1.6M acres and is pursuing implementation of the prescribed projects <http://goo.gl/m5rICx>,

- The Bi-State sage-grouse was not listed because of a completed and partially implemented strategic action plan using nearly \$30M in funding from conservation partners, as well as being able to secure \$45M in funding to complete the remaining prescribed projects.

- The Sage Grouse Initiative reported that nearly a 4.5M acres of land has been restored or conserved recently with a \$425M financial commitment <http://goo.gl/CHi6zW>,

- The Western Association of Fish and Wildlife Agencies (WAFWA) reported that greater sage-grouse populations have grown by nearly 2/3rds since 2013 <http://goo.gl/igxzK8>, and

- The Greater sage-grouse listing was not warranted and will be reviewed again in five years. <http://goo.gl/4QuUTr>.

There is much more news that I did not cover above, but these connect the dots for me in way that I think is very logical. The current strategy being employed with regards to sage-grouse and rangeland management is that the bird is an indicator species for the health of the ecosystem. The ecosystem is an integrated and interactive system that is politically divided by landownerships that can cause interruptions in natural processes and holistic management, improvement, and functionality. Nonetheless, all lands are important because the ecosystem puzzle is not complete without any of them. The preliminary results of the collaborative ecosystem stewardship or Coordinated Resource Management (CRM) across political boundaries seems to be evidence that it works and may be a pre-requisite to meeting ecosystem stewardship goals. Landscape scale conservation requires coordination between all affected interests, which can be an arduous, but is an essential process. This process is used to create a common vision (mission), general conservation outcomes (strategy), and steps (actions) necessary for the entirety of the ecosystem users, beneficiaries, and landowners to follow to create end-products defined in the strategy. This is a planning process that has to happen so that actions are synergistic and maximize the conservation action benefits with the limited amount of time, resources and money.

If I boil this down into a few concepts, it reads like this: Results cannot be expected without action, actions will only work if proper planning and preparation precede performance, cross-jurisdictional planning can make actions more effective, better planning makes for better management, better management makes rangelands healthier, healthier rangelands are more functional and provide better habitat and other ecosystem services and products. This is an easy model to write down, but much harder to follow through to completion. With your limited time, money, and career length, how will you prioritize your involvement in developing and seeing through the requirements for landscape scale stewardship? I hope your labors bear fruit of which you can be proud because they create healthier and more sustainable rangeland ecosystems for generations to come.

One Nation-One Rangeland,  
Ryan S. Shane, President

Photos for the following Summer Tour article will be seen in *The Progressive Rancher* January magazine or on the Section Website at <http://nevada.rangelands.org/index.html>

**2015 SUMMER MEETING – FRENCHGLEN, OREGON**  
Practical Strategies from the Roaring Springs Ranch; Part 1 of 2  
By Amanda K. Wartgow

Conservation and ranching go hand in hand. Land management, which benefits the ecosystem as a whole, can also benefit the ranching industry of our great state. This was the main topic discussed at the summer SRM tour, hosted by Mr. Stacy Davies and the Roaring Springs Ranch. This article is Part 1 of a two-part article; the second will offer additional insights observed on the second day in the field.

The summer workshop and field tour offered annually by the Nevada Section of Society for Range Management provides an opportunity to learn about management of Nevada's rangelands. This year's tour may have been set near Frenchglen, Oregon but the strategies learned are beneficial to other areas of the Great Basin. Steens Mountain provided the perfect opportunity for research by Dr. Tamzen Stringham, who has worked with the ranch over the past 17 years and provided thesis projects for six master's students and two PhD students. The tour focused on land management that benefits both wildlife and cattle while remaining profitable to the rancher. Stacy emphasized the need for adaptive management strategies as opposed to rigid grazing schedules allowing for grazing management to be "biologically driven." This topic is only a part of the larger question at the heart of many conservation and ranching concerns: how to work with the current management strategies on our public lands? The tour made eight different stops on day one and at each stop Stacy explained he works with BLM, Oregon Department of Fish and Wildlife, and many other conservation groups to help everyone realize their end goal is the same: a thriving, healthy ecosystem. This makes it so all can work together to complete a project or management plan.

The first night of the tour was spent enjoying a delicious meal and learning about sage-grouse research that has been conducted on the ranch by Andrew Shields, wildlife biologist and full time ranch employee. In the late 1990s, Roaring Springs Ranch began several projects aimed at improving the health and productivity of the ranch. Major treatments included juniper cutting, prescribed fire, and improved grazing management. These projects altered the successional stage of the landscape and improved habitat for sage-grouse, mule deer, redband trout, and many other species. Beginning in 2013, the ranch began a study to better understand how sage-grouse use this landscape. Sage-grouse were captured, radio-collared, and monitored throughout the year. Radio-collared birds used treated areas extensively, particularly prescribed burned areas. Sage-grouse typically either moved up in elevation or to wet areas during summer, with one research bird documented as moving approximately 30 miles to wet areas on the ranch for the summer. This information will help the ranch prioritize areas to implement conservation actions with the goal of maintaining a healthy population of sage-grouse into the future.

The next day was spent touring the ranch and several restoration projects implemented by Stacy and Dr. Stringham. The first stop was the end waters of 3 Mile Creek, historically habitat for the redband trout which were considered for listing in 1999. The ranch had been diverting water to irrigate alfalfa fields in the valley, fish and all. In order to provide safe habitat for the fish, Stacy designed, engineered, and implemented a fish screen. The screen is set in the creek channel above a fish passage, welded to the irrigation culvert which runs perpendicular to the original water channel. Historically, the headgate could be closed to divert all water from the channel to the irrigation culvert. With the screen in place the headgate is only able to divert that amount of water which flows over the

top, allowing the fish to swim through the fish passage/channel underneath. The whole system was designed to ensure that the fish get the water of the channel first and irrigation comes second.

Just across the highway from the fish screen was a prescribed fire done by Stacy and the ranch. Using fire to combat the juniper encroachment out of the rocky face of the Steens and down into the valley is a primary strategy at Roaring Springs. The goal was to kill about 50% of the juniper trees. The next canyon over is wilderness and remains untreated which makes for a good comparison between treated and untreated areas. This burn was on private land but Stacy made sure he coordinated with the State of Oregon. The increase in cheatgrass was expected but Stacy manages it by grazing in early spring and fall when there is any green up.

The next stop was at a more recent wildfire. Stacy stopped here specifically to discuss the seeding of natives versus non-natives dilemma. For him, it is a no-brainer, seed the perennials that will be able to grow and compete with the annuals, whichever those may be. At this particular fire they seeded forage kochia and crested wheatgrass with success. When showing this area off to other tours he typically hears only positive things about the amount of perennial species present. So he started asking the question; if these are non-native species why does this area look good but other seedings look bad? He learned that it wasn't necessarily the species of plant but how it is planted. The general public wants to see something that looks "natural" i.e. no drill rows. So he looked for ways to revegetate burns without using a drill and found many tools available with such capabilities. Wildlife and cattle don't mind if the forbs and grasses come up in a row, but public perception can come into play when considering management decisions. His typical seeding strategy for forage kochia is to first disturb the soil, otherwise the seed won't stay where you want it, then he'll typically use a plane to fly on kochia seeds to avoid the drill rows and plant the tiny seeds at an appropriate depth. He seeds grasses in late October through December, trying to avoid planting too early so the seeds won't sprout and freeze, while not planting too late into snow. He was asked if he changed his seeding strategies depending on the temperature and damage done by the fire. Stacy replied that he tries to use the least expensive and least invasive treatment. The use of different tools such as the Lawson aerator, planes, rangeland drills, or imprinters can help with the severity of the seeding treatment. He's never tried to chemically treat cheatgrass; he feels the weed that will replace it is likely worse. Dr. Stringham also noted that tilling or other more invasive practices can open the site up for more invasion, and suggests a "do no harm" approach: try to help the residual perennials, assess the severity of the fire, and use the correct tool.

With a decent seeding of forage kochia and crested wheatgrass and a little cheatgrass in between, Stacy's cattle can gain about two pounds a day even in the late summer season. The perennials provide a decent amount of protein while the dead cheatgrass gives just enough carbohydrates to avoid bloat. He figures if these species can do that for a cow, they can do that for wildlife as well. On this seeding they've seen deer, bighorn sheep and elk, none of which seem to mind the presence or absence of drill rows.

As we headed onto Steens Mountain we followed Little Skull Creek, prime habitat for redband trout, to a stop at a water gap. The design of the water gap does not allow cows to cross the stream, but instead forces them to come down, drink their fill, and back out. Not only does this avoid damage to the stream banks but it forces cows out of the creek in such a way that their excrement does not land in the stream. Usually a cow drinks her fill, crosses the stream and as she heads up the other bank the force of gravity redistributes the weight of her now full belly of water which typically releases some amount of feces into the stream as she crosses. This water gap, for the most part, prevents that from happening which reduces the amount of nitrogen in the water ensuring a clean habitat for fish.

The next stop was just upstream. This area was utilized more heavily than in a typical year to better manage the uplands earlier this spring. Stacy explained they tried their best to keep the cattle off the riparian area but it was a necessary management decision to improve the health of the upland pasture and reduce the fine fuels that had built up. He has plans to manage the recovery of this stream for the next 4-5 years.

We followed the stream to Skull Creek meadow; a large meadow system with a lot of history. The stream had been moved, an irrigation ditch built and ponds constructed to irrigate the meadow for hay. Not long before Stacy assumed management those ponds had been breached to force more water downstream. This created numerous ecological issues in the meadow and throughout the watershed. This is where a lot of Dr. Stringham's research focused on the repair and future health of the meadow system. Here they were able to fix two headcuts in the stream and reduce the incision to allow redband trout to travel up and down the stream. They also monitored stream temperature and the influence of the irrigation water. They found that when applied correctly, irrigating the meadow reduced the temperature of the stream in the hot summer months making it more tolerable for the redband trout population. Publications from this research can be found online and are listed at the end of this article.

Finally it was time for lunch. The conversation circled back to how to work with those government agencies with management authority for our public rangelands. The starting point is to make it a collaborative effort which includes others beyond the ranch and the BLM in the decision making as it is a multiple use area. Follow through is essential; the sooner plans and projects will be done the more trust that can be built with the partners involved. Discussion resolved that with collaboration and trust, management decisions can be made that will benefit all involved.

Near the reservoir above Skull Creek meadows Andrew described management techniques for the redband trout population used in this location. One decision allows the irrigation ditch that feeds the reservoir to be managed like a natural stream, allowing nature to curve and twist the edges to make it habitable for trout. Every year around spawning time Andrew counts fish from the reservoir and up the ditch about two miles. His highest count has been over 100 fish, far greater numbers than when Stacy first took over ranch management.

The next stop was at the headwaters to Skull Creek and the Western juniper encroachment seen there. Dr. Stringham explained that this watershed remains untouched due in part to future research opportunities it presents. We also discussed some the research that has been done on the sage-grouse populations in the high country. Andrew brought his VHF locator and was able to locate a bird, likely within a mile of where we were standing. All his research suggests birds in the high country stay year round and use shorter, wind-swept sagebrush areas, whereas those in the low country, the Catlow Valley, utilize the big sagebrush for winter habitat. The burn areas on this higher country typically yield an influx of forbs after fire which increases insect populations and allows for higher chick survival. The ideal plant composition for these birds is diversity; they use a variety of habitats depending on the time of year and their stage of life. So a wildfire or prescribed burn that creates a mosaic of sagebrush and perennial grasses provides the ideal environment.

Lastly, towards the top of the Steens, we stopped at the headwaters of Home Creek which historically had been diverted to irrigate the meadow to grow hay. Where we stopped there was no water in the channel due to beavers creating dams upstream and diverting the water. But we did get a decent look at some of the old research projects that had transpired. A wildfire in 2001 burned the willows and reduced the shade cover for the trout. Vegetation data was collected after fire which found over 125 different plant species within this meadow, and the researchers witnessed the heavy use of sage-grouse in this area just after fire. It was here that one of Dr. Stringham's graduate students studied

shading and stream temperature. They used cut juniper trees from the next creek over to shade portions of the stream and monitor the temperature and use of shade by redband trout. Shading moderates the stream heating but the final temperature remains the same. However, the fish did use the shaded areas as cover from predators. They also noticed willows were able to sprout along the stream banks where juniper "trash" was placed. In other areas unprotected willows were heavily utilized by deer, cattle and elk and unable to grow above a couple feet in height. From where we stood you could easily identify those areas that had been shaded by the healthy stands of willows present. Again, this research has been published and links can be found at the end of this article.

Finally we headed back down to the ranch and a warm welcome from Stacy's wife Elaine and some delicious tri-tip and lively conversation about all we had seen and learned that day. Essentially the ranch is managed as a whole unit, each pasture, permit, stream, meadow and upland managed to benefit the whole system. Stacy's decisions are based on the biological needs of the ecosystem; his ability to be flexible creates many opportunities for growth and development. It's because of this approach that he is able to convince management agencies he is a guy to work with, not against. The Roaring Springs Ranch is a working, thriving ranch that provides ideal wildlife habitat and a great model of ranching and conservation.

Thesis/tech notes:

Stringham, T. K., J. C. Buckhouse, and W. C. Krueger. 1998. Technical Note: Stream Temperatures as Related to Subsurface Waterflows Originating from Irrigation. *Journal of Range Management* 51:88-90.

Matney, Casey A., Chad S. Boyd, and Tamzen K. Stringham. "Use of Felled Junipers to Protect Streamside Willows From Browsing." *Rangeland Ecology & Management* 58.6 (2005): 652-55. Print.

Leary, Ryan. Winterfat Seed Viability and Dormant Season Livestock Grazing. Thesis. Oregon State, 2008. Corvallis: Oregon State U, 2008. Oregon State University Libraries. Web.

Estes, Mark G. Nutritional Characteristics of Dorman T Season Grazing Within a Winterfat ( *Krascheninnikovia Lanata* (Gueldenstaedt)) Dominated Plant Community, and the Effect of Seedbed Preparation on the Emergence and Survival of Winterfat and Squirreltail ( *Elymus Elymoides* (Raf.) Swezey) Seedlings. Thesis. Oregon State University, 2008. Corvallis: Oregon State U, 2008. Oregon State University Libraries. Web.

## **2018 SRM ANNUAL MEETING, TECHNICAL TRAINING & TRADE SHOW**

Mark Freese

The 2018 SRM International Meeting will be hosted by the Nevada Section in Sparks/Reno January 26 – February 3, 2018! There are opportunities to participate on the planning committee. We hope that you will consider helping out in this effort to make the 2018 meeting a success! *Contact Mark Freese at [markfreese@ndow.org](mailto:markfreese@ndow.org) to review documents or sign up to participate*

### **To date...**

- The parent society has signed a contract with the Nugget in Sparks
- A draft Memorandum of Agreement (MOA) between the Parent Society and NV Section outlining roles and responsibilities is in draft and available for comment
- Several draft themes for the 2018 meeting have been submitted and are available for your edits and votes

### ***The next steps...***

- Schedule a Planning Committee Kickoff Meeting this Winter
  - Edit draft MOA between NV Section and the Parent Society
  - Finalize NV Section “Annual Meeting Planning Committee (AMPC)” which includes General Co Chairs, Finance Chair, Program Chair, Local Coordinator, and Publicity Chair
  - Edit task list, timelines, and team building (i.e. assigning subtasks)
  - Edit Theme, Title, and Logo
  - Generate list of questions
  
- Winter Meeting January 14-15, 2016
  - Kelly Fogarty with the Parent Society has agreed to attend the Winter Meeting and participate in discussions regarding planning the 2018 Meeting
  - Edit MOA
  - Edit task list, timelines, and team building (i.e. assigning subtasks)
  - Finalize Theme, Title, and Logo
  
- March 1, 2016 deadline
  - Finalize MOA
  - Finalize task list, timelines, and team building (i.e. assigning subtasks)

**VOTE FOR THE THEME, LOGO, AND TITLE;** see other attachment to this email with the newsletter

### **AWARDS**

Chris Jasmine, Zone 1 Councilman

#### Nevada Section Awards

The objective of the Awards program is to provide public recognition of land managers, ranchers, administrators, technicians, educators, elected representatives, youth and business people who make significant contributions to range and related resource management.

- *Nevada Sustained Achievement Award* (a member who continues to work for and promote the Nevada Section SRM)
- *Excellence in Range Management* (not always given every year)
- *Rangeland Professional of the Year* (typically an agency employee or consultant)
- *Range Man of the Year* (typically a producer)
- *Young Rangeland Professional of the Year* (typically anyone who fits into the categories above that is early in their career)
- *Great Basin Award* (anything or anyone that we wanted to acknowledge or thank that didn't fit in the other categories)

Further information on awards can be found in the Nevada Section Handbook. Any SRM member can nominate an individual for these awards. The nominee does not need to be an SRM member. Nominations should be sent directly to the Awards chair (Zone 1 Councilman for 2015). Awards will

be decided on by the Awards Committee, who under the new approach will be the Zone Council. The awards are announced and awarded at the Winter Meeting.

I encourage all of you to consider these awards and nominate the outstanding work that your colleagues conduct in Nevada right now. Take the time to nominate someone you think deserves recognition. Send nominations directly to [chris.jasmine@stantec.com](mailto:chris.jasmine@stantec.com); I will make sure all nominations get sent to the Zone Council for review and consideration. The deadline for nominations will be one month prior to the Nevada Section Winter Meeting; this year due December 14, 2015 to Chris.

#### Parent Society Awards

There are also many awards available each year from the parent society. These awards are given to the top professionals in our field and are considered some of the top honors for rangeland professionals. Any of our Nevada Section members can be nominated for these awards and it is a great way to elevate the work we do in Nevada to the national spotlight. The link below goes directly to the awards page on the Parent Society's page, and I encourage everyone to check it out and to think if there is a fellow Nevadan that may be worthy of this level of recognition. [http://www.rangelands.org/awards/awards\\_honorawards.shtml](http://www.rangelands.org/awards/awards_honorawards.shtml)

### **NEVADA PINYON-JUNIPER PARTNERSHIP UPDATE**

Jeremy Drew, Project Manager

The Nevada Pinyon-Juniper Partnership (Partnership) was formed in 2009, and advocates for proactive management of pinyon and juniper woodlands based on sound science. The Partnership also supports the responsible utilization of PJ biomass that is generated from ecologically sound woodland treatments.

Earlier this year, the Partnership was awarded a USDA Forest Service Wood Innovations Grant. This grant will allow the Partnership to function in its current capacity as a "wood action team" for the next three years. The Eastern Nevada Landscape Coalition will continue as the fiscal agent for the Partnership and Resource Concepts, Inc. (RCI) will continue as the Project Manager.

The grant requires an emphasis on developing wood products and markets. Based on previous and ongoing pilot projects, the Partnership elected to focus on developing wood-based compost, biochar and other soil covers and amendments. This approach fits well with an on-going Conservation Innovation Grant (CIG) Project in Eureka County and another Forest Service Grant project near Lund.

The Eureka CIG Project is focused on utilizing biochar made from pinyon-juniper chips from thinning projects completed on private lands within the County. The biochar will be applied as a soil amendment to alfalfa pivots in Diamond Valley as well as pivot corners. The Agricultural Research Service in Kimberly, Idaho will monitor how biochar alters soil nutrients and soil moisture in both the irrigated pivot as well as in the non-irrigated corners. The project near Lund will utilize PJ biochar to rehabilitate a degraded upland range site.

The Wood Innovations Grant has allowed the Partnership to expand the Eureka CIG project, and establish a western Nevada pilot project. For the western pilot project, the Partnership has teamed with Genoa Tree in Minden to develop both compost and biochar. Genoa Tree already has an established compost operation, and has begun exploring the potential for incorporating biochar into their compost for sale to existing and potentially new markets.

All three projects are in the early implementation stage. A new mobile rotary kiln operated by Amaron Energy made approximately 13 tons of biochar in Eureka this summer. However, the rotary kiln



operation experienced logistical problems in processing the PJ chips. While enough char was made to move forward with the CIG project, the Partnership was left with an overall biochar shortfall. Amaron Energy took its lessons learned from the Eureka project, and has begun making process and mechanical changes to the rotary kiln.

In the meantime, the Nevada Division of Forestry, in conjunction with Prison Industries, constructed nine mobile metal kilns to complement their one existing pilot kiln. The kilns were recently deployed to the field near White River, and are currently making char from PJ that was cut two years ago. The treatment was lop and scatter of Phase 1 and early Phase 2 expansion PJ, and was implemented by the Ely Ranger District of the Humboldt-Toiyabe National Forest. The project removed a section of PJ that separates several Sage-grouse leks from brood rearing and summer habitat. The project area lent itself well to a portable kiln operation that makes char from dry limbs and slash as opposed to processed chips.

Additionally, Genoa Tree has recently completed a stationary block biochar kiln at its facility in Minden. The desire is to have an operational kiln that can convert wood chips, slash or whole logs into biochar at a commercial scale that can be incorporated into their compost products. Genoa Tree's geographical location allows them access to slash and chips from commercial urban tree care companies in the Carson Valley, hazard fuels projects in the Sierra Range, and PJ projects in the nearby Pine Nut Mountains.

The Partnership will continue working with all of its members to move forward with these three pilot-scale projects with an eye towards future commercial-scale endeavors that utilize woody biomass from ecologically sound PJ projects. We will keep NvSRM apprised as to our progress and findings as these projects move forward!

For more information, or to get involved in the Partnership, please contact Project Manager Jeremy Drew at RCI by phone (775) 883-1600 or by email [Jeremy@rci-nv.com](mailto:Jeremy@rci-nv.com).



**Photo 1a:** Shows Amaron Energy's rotary kiln in Eureka. The kiln is housed inside the large shipping container, and is fed by the white chip feed bin and conveyor on the left. Finished biochar is emptied from the kiln into the green finished char bin and conveyor in the center, cooled with a water spray, and dumped into super sacks for storage and transportation. The equipment to the right of the finished char bin includes an incinerator and waste oil container.

**Photo 1b:** Shows the Amaron Energy operation in Eureka. To the left is the raw chip pile that serves as the feed stock, and in the fore ground are the super sacks of finished biochar.



**Photo 2:** Shows one of ten Nevada Division of Forestry mobile kilns in White River. A finished pile of biochar is shown on the left with an active kiln on the right. Note the difference between the residual slash in the foreground versus the background, as well as the contrast between the treatment area, and the untreated area in the background.



**Photo 3:** Shows Genoa Tree's stationary block kiln in Minden. The kiln is near completion and can process up to 9 cords of chips or whole wood per burn once complete.

## FROM OUR HISTORY

From Section Historian Trina Johnson: the September 1976 newsletter stated:

“All in Hamburger - Two companies, McDonalds, and Burger King, purchase the equivalent of one million head of cattle each year. That’s nearly 2.5% of the annual U.S. Slaughter”

(Note:<https://www.quora.com/How-many-cows-are-slaughtered-annually-to-make-McDonalds-hamburgers> states that in 2011 McDonalds buys approximately 1% of all beef produced in the US; approximately 377K animals per year)

The 1976 newsletter also stated that Prairieland Altai wildrye was to be introduced from the USSR as a drought tolerant long lived perennial pasture grass; the first of its kind to be licensed in the world. It was intended to extend the cattle grazing season through late fall and into winter due to its high nutritive value in late fall and its accessibility to cattle when snow is present.

Trina wonders, “Was this able to make its presence known in Nevada? Is it elsewhere in the US? Was it a success?” Anybody know?

## 2016 WINTER MEETING – JANUARY 14 & 15 IN ELKO

Tim Rubald, President-Elect

Plan now to attend “Sage-grouse on Nevada Rangelands: Positive Management Actions Moving Forward”, presented by Nevada Section of Society for Range Management on January 14<sup>th</sup> and 15<sup>th</sup> in Elko, Nevada. Leadership from many of the organizations that have spent years developing management tools and options for use on rangelands will discuss much of what has been developed:

- Nevada’s Sagebrush Ecosystem Technical Team – the new Conservation Credit System,
- BLM / USFS state office leaders – implementing the ROD for the NE CA and NV Sage-grouse EIS,
- Dr. Pete Coates – his state of the art mapping and planning tools that will soon be available,
- NRCS’ Sage-grouse Initiative – highlights of the new SGI 2.0 version, and
- Dr. JJ Goicoechea, DVM, and Jake Tibbitts – a local government perspective.

This will be a unique opportunity to see all these experts at one conference, and there’s plenty of time planned on the agenda for you to visit directly with these people who are experts in their field. Happening at Great Basin College, **Greenhaw Technical Arts Building #130**. Additional information from Tim Rubald at [timrubald@dcnr.nv.gov](mailto:timrubald@dcnr.nv.gov), and in the next newsletter.

Please,

Send your vote for 2018 Theme and Logo to Mark Freese, [markfreese@ndow.org](mailto:markfreese@ndow.org)

Put the Winter Meeting on your calendar

Nominate a colleague for an award; [chris.jasmine@stantec.com](mailto:chris.jasmine@stantec.com)

Answer Trina’s question on Prairieland Altai wildrye and/or  
Request full size photos from the PJ Partnership article, [sideoatsg@yahoo.com](mailto:sideoatsg@yahoo.com)