# Proposed Amendments to Nevada's Sage Brush Ecosystem Plan
# Submitted by Rural Heritage Preservation Project
# Dec. 18, 2013

## Background and Discussion

**Nevada is third behind Idaho and California as the most burned over states in the Union.** Nevada averages 400,000 acres and over 1.2 million animals burned annually. Nevada fires spew out over 40 million pounds of pollution containing mercury, benzene, ozone, carbon monoxide, particulates and many other kinds of pollutants annually.

Before 1950 an average of less than 10,000 acres burned in Nevada annually. Because of the failed policies of the Federal Government the number of acres and animals burned has increased forty times from 10,000 acres to 400.000 acres burned per year, and from 30,000 animals to over 2.2 million animals burned each year. Pollution has also increased by forty times from one million pounds of pollution to over forty million pounds of pollution spewed into the atmosphere each year. The fires of Nevada produce more pollution than all the mines, power plants, vehicles, construction and agriculture in Nevada combined. (*See Attachment 1, Smoked Bear Press Release*)

In 1999 alone, Nevada lost 45,000 acres of bighorn sheep habitat, 668,000 acres of antelope habitat, 144,000 acres of sage grouse habitat, 481,000 acres of chukar habitat, 304,000 acres of mule deer summer range and 341.000 acres of deer winter range to wildfire.
(*See Attachment 2, Nevada Wildlife Almanac, 4452, Printed by the Nevada State Printing Office, Carson City, Nev.*)

## Cause and effect

The Federal Government has reduced sheep grazing on Federal Lands by over 90 percent and cattle grazing by 50 percent within the State of Nevada since 1960. The results of these reductions were not unpredictable. In 1994, Elko County appointed a Grazing Task Force to gather information regarding public lands management within the state. After months of investigation the Task Force found that Federal agency decisions had caused significant decline in the number of livestock and duration of grazing on public lands in Elko County. From 1992 through 1994, cattle numbers in Elko County had declined by 63,000 head. "Livestock grazing acts as an important fire prevention tool. "There is a direct correlation between the height and density of grasses and the spread, duration, and intensity of wildfires."

The Task Force found that the U. S. Forest Service was reducing livestock use on Forest lands as a means of gaining control of permittee's vested water rights*. (See Attachments 11, 12,and 13)*

The Task Force found that, "Large federal expenditures on fire management had not proven cost effective. "Examples included the Tin Cup and Dawley fires in 1994. More than a half million dollars were spent to suppress these fires." Local fire control would have been more timely, efficient, and cost effective." (*See Attachment 3, Elko County Board of Commissioners Grazing Task Force - Findings and Recommendations, June 1995*) (*See also, Attachment 4, Effects of Long-term Livestock Grazing on Fuel Characteristics in Rangelands by Kirk W. Davies, others*) *(See too, Attachment 9, Benefits of Grazing and Wildfire Risk, by John M. Harmer)*

In a report to the Elko County Commission in Aug. of 2000, Dr. Tony Lesperance reported that for every A.U.M not utilized another half acre was going up in flames each year. (*See Attachment 5, The Relationship Between Livestock Grazing And Fire.*)

## Natural Regulation - Fire - and Concerns for Public Health and Safety

Natural regulation implemented by federal officials is not new. Policy allowing fires started by lightning to burn within limits became a standard soon after forest reserves were created. At that time, the practice of deliberately clearing land with small fires was known as "light burning." It had champions among settlers, loggers, foresters, and others who saw the limited burning as a way to reduce fuel, increase water flow, regenerate pasture, and prevent catastrophic fire. Early advocates of light burning took their cue from regular burning by Indians.

Light burn policy came to an end however, soon after the Big Blowup fire of 1910 occurred. A bad fire season was limping to a close in late August of that year when unexpected winds of near-hurricane velocity struck the panhandle of Idaho and western Montana. The big Blowup raced thirty, forty, and fifty miles in a burst. Smoke from the blaze reached as far east as Boston. Because of the constant fall of ash from the fire, persons living in central and eastern Montana called it the summer of white snow. Flames scorched more than 3 million acres in two days, and kept on burning, destroying logging camps and small towns in its path. No fewer than eighty five people were killed.

The ferocity of the Big Blowout, which came on the heels of other devastating fires triggered a call for a systemic policy change. Less than a year later, the National Forest Service firefighting program was born. Those who fought the Big Blowout united in the desire to never let anything like the Big Blowup Fire of 1910 happen again.

The war against fire proved a success, if measured in acres burned. The amount of forest and grassland consumed by fire dropped dramatically, from an average of about 30 million acres a year at the turn of the century, and from highs of 40 to 50 million acres a year in the drought years of the 1930's to an average of about 5 million acres a year in the 1970's.

The war also produced the lovable Smokey Bear, who first appeared in 1944 as fire's poster boy. Nothing before or since has influenced the way wildfire has been fought in America? (*The book, Fire and Ashes, by John N. Maclean, Chapter 4, pp 195, 196 and 197*)

Now it appears, we are back to implementing these same failed policies as were implemented decades ago. We have to ask. Can the high cost in lives, property, rehabilitation, and fire control be justified simply for the purpose of policy that may be in vogue at this time?

Perhaps two of the best laboratories for determining the long term effects of natural regulation are the Sheldon National Wildlife Refuge and Hart Mountain National Wildlife Refuge. Unbeknown to most, one of the most intensive predator control programs ever carried out here in the west was implemented in the early 1920's on an area that was then described as the northwest corner of Nevada and south central Oregon. Between 1921 and 1934, 7,500 coyotes and bobcats were systematically removed. By 1935 it was estimated that antelope numbers had increased to more than 10,000 animals. Mule deer were becoming more and more abundant and sage grouse were being seen by the thousands. (*See page 3 of, Visits To The Sheldon National Wildlife Refuge In 1989, Attachment # 6*)

Some might say, what is so significant about that. Well, the significance is, historically, or at least at the time of first exploration into the region no wildlife of any significance was seen in the region. Predator control, you might say, was the father of the Hart Mountain and Sheldon Refuges.

Now, some seventy five or so years later, we are experiencing the opposite situation. Each year fewer and fewer wildlife of nearly every kind are being seen on the Sheldon and Hart Refuges. In fact, on close inspection it can be seen, when wildlife numbers began to decline beginning in the 1960's and 70's such occurred first on refuge lands simply because, that was where the elimination of livestock grazing and reductions in predator control practices were first implemented.

Probably one of the most beneficial things accomplished by refuge personnel over the years has been the narrative reports that have been kept year by year. Beginning in 1940 at Hart and Sheldon, estimated numbers of animals, production, and yearly activities have been well recorded. (*See Attachment #7, History of Predator Control Practices on the Sheldon National Wildlife Refuge and Hart Mountain Range, Report No. 110*)

### 3.2.1 Conservation Objectives -

<u>Short Term</u>

- Reduce the amount of sage-grouse habitat loss due to large acreage wildfires and invasion by non-native species.

- Reinstate livestock grazing use within allotments to equal that of the time of first adjudications.

<u>Long Term</u>

- Maintain an ecologically healthy and intact sagebrush ecosystem that is resistant to the invasion of non-native species and resilient after disturbances.

- Maintain traditional levels of grazing use on all public lands.

- Seek to more readily activate non-active A.U.M.s within allotment on above average moisture years.

3.2.2 Conservations Policies - Public Health and Safety - Paradigm Shift

- Prioritize public health and safety of those living within fire districts - emphasize the importance of encouraging local control and leadership when conducting firefighting measures within rural communities - recognize and encourage traditional fire fighting methods of controlling wildfire.

- Prioritize the importance of quick response - wildfires at all times should be put down when conditions are right for putting them down. (*See, Rural Heritage Preservation Project, Finding of Facts, Findings #25 and #27*)

## Cheatgrass Concerns - Cheatgrass Myths

A good many species of wildlife have benefited from cheatgrass over the years, including bighorn sheep, deer, pronghorn antelope and Elk. 184 ,166, 399, 27.399 232. In summer and in fall, the bulk of chukar diets is composed of cheatgrass seeds. 476, 381,452

Personnel at Hart Mountain found deer and bighorn feeding on cheatgrass and doing well in 1941. *(See Attachment 7, Rural Heritage Preservation Project, Report No. 110, History of predator Control practices on the Sheldon National Wildlife Refuge and Hart Mountain Antelope Range, pp23, 24)*

Cheatgrass is one of the most important sources of feed for livestock and wildlife found in the Great Basin. Mule deer, with their small muzzles often reach beneath existing sagebrush during winter in order to nibble new shouts of green cheatgrass when green feed is not available elsewhere.

Cheatgrass is a good source of feed even when it is in a cured condition. Livestock, like people, tend to like a variety of foods. Some plants, like shrubs and browse, are often high in protein while cured grasses are often good source of energy. So if a cow, or sheep or antelope, depending on the kind of country they are in, can eat a little desert shrub or maybe some greasewood - or if they are in the mountains, some quaking aspen or rosebush, or chockcherry,, along with cheatgrass, they get along fine. In fact, it is not uncommon to see cattle during winter on cheatgrass range that look better than cows that are being fed a full ration of hay. *(See Attachments, 15 and 16, Is Cheatgrass of any Nutritional Value? by Dr. L. Ben Bruce, and Dheatgrass:Changing Perspectives and Management Strategies, by F.L. Emmerich, F. H. Tipton and J.A. Young)*

Cheatgrass invasions when not managed wisely have proven harmful during recent decades. Cheatgrass infested plant communities can present a fire hazard only when rangelands are not grazed properly

It's not cheatgrass that has caused the huge fires that have been burning out of control during recent decades. The drive to reduce and eliminate grazing whenever and wherever possible during recent decades has taken its toll. Instead of rangeland feed being utilized as it once was in the 1940's, 50's and 60's, large amounts of feed are left on our western rangelands from year to year - setting the stage for catastrophic wildfires that consume thousands upon thousands of acres at a time - at the expense of ranching families - at the expense of taxpayers - and at the expense of wildlife.

The assumption that Cheatgrass has displaced native vegetation within sage brush steppe rangeland may be incorrect. Beginning in 1979, a fourteen year study was undertaken in southeastern Oregon soon after scientist found two isolated areas deep within large lava flow areas where livestock had never grazed not had cheatgrass been introduced. During the study several things were learned. First of all, contrary to popular belief, it was found that the number of plants per square yard was not what had been expected. At the Eastern Site it was found that 59 percent of the ground was barren of vegetation, while at the West Site, ground barren of vegetation ranged from 84 percent in 1980 to 76 percent in 1991.

Most significant was the increase in cheatgrass which occurred at the West Site beginning in 1980. Apparently, there was an unintended introduction of cheatgrass by the scientist themselves. Site previously barren of vegetation became populated by cheatgrass, yet no loss of perennial grasses, forbs, or shrubs was noted during the remainder of the study. Cheatgrass does not crowd out native vegetation as some believe. *(See Attachment 14, Pristine Vegetation of The Jordan Creator Kipukas: 1978-79 by Robert R. Kindschy)*

Perhaps the most important study accomplished recently addressing the issue of cheatgrass, fire, grazing relationships was completed by Kirk W. Davies in 1993 near Burns Oregon.

In that study scientist instigated controlled burns, first to as area that had not been grazed since 1936, comparing it to a second area that had been routinely grazed to the time of burning.

Surprisingly, perennial bunchgrass increased 1.6 fold within the grazed area - while cheatgrass increased 49 fold within the protected area.

What was learned was, grazing serves to reduce fire intensity, thereby reducing soil hating, which then causes greater perennial bunch grass and forbs survival, which in turn prevents a cheatgrass invasion.

(*See Attachment 10, a paper titled, Interaction of historical and non-historical disturbances maintains native plant communities - K.W. Davies, Svejcar and Bates. See too, discussion within, Rural Heritage Preservation Project's Findings of Facts)*

**Rural Heritage Preservation Project**

Input to the Sage Brush Ecosystem Council  Dec. 15,  2013

Recommendations and suggestions  -  that seven additional  seven additional anthropogenic disturbances that have proven harmful to sage grouse be added to the list.

Anthropogenic disturbances  -  Cumulative effects  -  and Threat Assessment

Mineral development and exploration and associated infrastructure

Renewable and non-renewable energy production, transmission, and distribution and associated infrastructure

Paved and unpaved roads and highways

Cell phone towers

Landfills

pipelines

Residential and commercial subdivisions

and other large-scale infrastructure development

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Systematic reductions in Livestock use below original adjudication levels

Systematic reductions in predator control practices that have been implemented since the 1960's

Mismanagement of wild horse and burro programs

Two year rest rule following wildfire

Rangeland restoration using only native species

U.S. Forest Service stubble height requirements on riparian areas

Threatened and Endangered Species Act Listings and accompanying restrictions

The Progressive Rancher
March 22, 2009

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**DR. KENNETH SANDERS** has been a professor of rangeland ecology and management at the University of Idaho for 32 years. He received his BS in range management from New Mexico State University, his MS from Oregon State University and PhD in range science at Texas Tech University. His research focus has been on rangeland monitoring, grazing management and rangeland improvements.

# PAUL TUELLER

THERE ARE FIVE IMPORTANT AREAS FOR CONSIDERATION in addressing wildfire issues. The first has to do with potentially changing public land policy and creating new laws that reduce litigation. The annual budget cycle is a major culprit in preventing success in rangeland enhancement efforts.

A second important consideration is the need to use grazing management to help solve the fire problem. The extreme fire years in the recent past must be due, in part, to the noted reduction in grazing the forage base, resulting in significant fuel buildup. The lower and sometimes upper reaches of the mountain ranges have turned yellow as a result of post-fire cheatgrass establishment. The buildup of cheatgrass has tended to shorten the grazing season across the state, as this grass is only green with a sufficient biomass for a short time—one month or less in the spring. Development of intensive grazing management strategies is needed to allow utilization of cheatgrass and reduce future fuel loads. Grazing animal will be the tools that must be used to make desirable changes in vegetation.

A third area is seeding with species that are known to be effective. It is important to highlight the scientific evidence that the most adapted and useful species have heretofore been non-native species. The argument about native versus non-native species is not useful and must be resolved based on available scientific findings. There is no good reason why the best and most useful species should not be used independent of origin.

Fourth, there is a need to maintain or develop strong rangeland management programs at universities that graduate well-trained, competent students who can enter into careers leading to management of these landscapes. In addition, increased support for herbaria is critical since individual plant species form the basis of sound rangeland management. Every good manager must be able to identify these species and have knowledge of their characteristics.

Fifth, the final area of concern relates to the under-utilized technology of remote sensing. Remote sensing, Global Positioning Systems and Geographic Information Systems can be used to provide important information to help refine our understanding of Great Basin vegetation and soil ecosystems in relation to fire ecology. Remotely obtained imagery can be used to follow greenness and maturation of vegetation for grazing management plans and a general consideration of fuel loads across large landscape areas. Remote sensing data would be useful for the design of experiments related to fire management efforts both pre- and post-fire. These data could also assist in the design of grazing management plans and the selection of sites that have the highest probability for success in revegetation efforts.


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# KEN SANDERS

THE INVASION OF GREAT BASIN RANGELANDS by undesirable invasive species, especially highly flammable annual grasses, as well as the continued spread and increasing density of juniper, coupled with the resulting increase in wildfire frequency, pose the greatest threat to the sustainability and restoration of these rangelands. In southern Idaho, cheatgrass and medusahead wildrye grass have evolved to grow under a wider range of soils and environmental conditions, resulting in a great expansion of their range. Cheatgrass is starting to dominate salt desert shrub communities. Once these communities burn, which is inevitable, it will be extremely difficult to restore them.

The restoration of cheatgrass-infested rangelands, while challenging in the best of circumstances, has been doomed to failure ever since the Bureau of Land Management put emphasis on seeding native species instead of what we know has the best chance of becoming established (i.e., crested wheatgrass). Millions of dollars of taxpayer money have been wasted on high-priced native seed mixes, with very little success. The result has been increased fire frequency, increased spread and dominance of cheatgrass and loss of livestock forage and wildlife habitat.

Increased recreational use of rangelands, especially off-road vehicle use, poses the second biggest threat to the sustainability of Great Basin rangelands. Much of the increased spread of noxious weeds is due to increased recreational traffic. Lightning is the primary ignition source of wildfires, but ignition from recreationists is second.

The third biggest threat is the reduction in grazing on public rangelands. If the proposed sage grouse habitat management guideline that recommends leaving a grass stubble height of 18 centimeters is applied, it will not only result in an adverse economic impact on livestock producers, but it also will result in increased, higher intensity wildfire due to a larger fuel load. Any adverse economic impact on livestock operators will lead to private ground being sold to developers, resulting in less open space, increased recreational use on rangelands and the resulting negative impacts mentioned above.

The greatest administrative threat to the long term stability and productivity of Great Basin ecosystems is "analysis paralysis." Both the courts and the public agencies managing Great Basin rangelands have made a far more restrictive interpretation of the National Environmental Policy Act (NEPA) than Congress ever intended. When he first became Idaho BLM Director, K. Lynn Bennett documented that in 2003 Idaho alone had 74 active administrative appeals and 18 district court cases, resulting in direct litigation costs of $677,000. However, the greatest costs were indirect: deferred work such as monitoring, permit renewal, range improvements, etc., loss of public trust and loss of employee morale. Environmental organizations filed 61 percent of the cases, with the challenges primarily based on the BLM not following established procedures—not the condition of the resource.

There are numerous other polices that also threaten the long term stability of Great Basin ecosystems. These include disposal limitations on the management of wild horses, a blanket policy of at least two growing seasons of rest following wildfire, rangeland restoration using only native species, suitability and capability standards of the U.S. Forest Service, stubble height requirements on riparian areas, Threatened and Endangered Species Act listings and resulting management restrictions. Such policies give agency wildlife and fisheries biologists, botanists and cultural and recreation specialists equal—or greater—say on monitoring, grazing management and restoration than knowledgeable range conservationists.

The first and perhaps most achievable step in policy change is to get more range conservationists back on the ground monitoring and actively managing rangelands. Range conservationists should be given a more prominent role interpreting monitoring data, grazing management and rangeland restoration decisions.

The first priority in rangeland restoration following wildfire should be to stabilize the soil, which means seeding species with the best chance of establishment. The same applies in trying to convert cheatgrass-infested rangelands to perennial grasses. The native species, which are more difficult to establish, should be seeded only after the soil is stabilized and cheatgrass competition is reduced.

Changes are needed in NEPA, the Threatened and Endangered Species Act and having the U.S. Attorney's Office representing the BLM in District Court cases. Changing the two acts is probably not realistic, but getting attorneys knowledgeable about natural resource issues representing the BLM in District

Court should be obtainable. It should be more difficult and expensive to file frivolous lawsuits. The Experimental Stewardship Program showed that the use of coordinated resource management not only reduced resource management conflict, but also resulted in improved management of the resources. The procedure should be more widely used. If individuals or groups are given the opportunity to participate in such a process but choose not to, they should lose their right to appeal the resulting decisions.