

BLM Scoping Process for Little Snake Resource Area Resource Management Plan Revision

by Rick Hammel
355 County Road 201
Craig, Colorado 81625
970-824-4536
rhammel@cmn.net

1.0 Introduction

My concerns for management of our Public Lands within the Little Snake Field Office (LSFO) jurisdiction, specifically Moffat County, is depicted within this document. My vision of the public lands within Moffat County is the restoration to what it was 150 years ago. While that is not possible, or even desirable, there are some advantages. There was a full range of wildlife and vegetation. Much of that has disappeared. Much of the wildlife can be, and should, be restored. The Canada lynx has been reintroduced within Colorado. Whether historical lynx habitat is on Black Mountain, is open for debate. Bison were surely present. Were wolverines present prior to settlement? Black footed ferrets were here, as were white-tailed prairie dogs. Wolves are beginning to make their way south from the Greater Yellowstone Ecosystem, of which I believe the northern part of Moffat County is the southern end of the GYE. The bottom line here is, we, the BLM and the private sector, need to work together to create a healthy ecosystem. There is not a complete trophic cascade present. One only has to look to Yellowstone National Park to see the effects of a somewhat complete trophic cascade has had on the landscape. It is the result of the reintroduction of a keystone species, *canis lupus*, the gray wolf. The lack of a complete trophic cascade is evident by the inability to have a successful reintroduction of the black-footed ferret. It does not have a healthy population of its prey species, the whitetail prairie dog. There are people who suggest we are in the third wave of the "Pleistocene-Holocene Extinction Event."

I have listed specific issues that I see that need to be addressed. It is not my intent to preclude any activity in this document; I only want to see activities that I have listed, more environmentally conscience in its use of the land. To use a phrase by Aldo Leopold, "Think like a mountain." In modern day terminology, we need to think more biocentrically, rather than an anthropogenically.

1.1 Mass Extinction

There are scientists (Michael Soule' and others) that suggest that we are in the third wave of the Sixth Mass Extinction or the Pleistocene-Holocene Extinction Event. The first wave started 40,000 years before present (BP) and lasted until 200 BP or about 1800 AD. The second wave began with an overlap of the first wave around 1500 AD and lasted until 1970. The third wave started in 1970 and is estimated to last until 2100 AD. I am not going to go into what went

extinct in each wave except to say that in the first wave most megafauna disappeared. In the second wave, birds tortoise and mammals disappeared.

Of concern is the third wave. It will affect all taxa. To illustrate: David Propst, a biologist with the New Mexico Department of Game and Fish, wrote in 1994. "When Europeans first arrived, it is estimated that the streams and rivers of New Mexico supported 66 species of fish. Today, only 59 persist. Of that number, 28 are currently as endangered by the NM Department of Game and Fish. At least two more should be added and the status of another three is of concern. Two should be removed because they are extinct. Thus, nearly half of half of New Mexico's fish fauna is officially imperiled. The imperilment of the native fish fauna of New Mexico has occurred almost entirely in the past 50 years and continues today." How does the loss of New Mexico's native fish species affect us here in Moffat County? The same thing is happening here. The Yampa River fishes that are endangered, the Colorado River cutthroat trout (CRCT) is a species of special concern, the roundtail chub and flannel mouthed sucker. What is the principal cause of decline of these fish species? Invasion of nonnative species and disease and loss of habitat.

What are the principal causes for extinction? David S. Wilcove¹ lists the primary causes as:

- Habitat destruction
- Nonnative species
- Pollution
- Overexploitation
- Disease

Above I stated that the CRCT are of concern. Historically, within the resource area, Willow Creek there was a population of CRCT that extended to the Little Snake River. Currently, on BLM land, they are extirpated. The reason is habitat destruction and nonnative species. This will probably continue through private land and into Routt National Forest, where there is a small population of relatively pure CRCT. Beaver Creek has a robust population in its headwaters on Cold Springs Mountain. However, there are brook trout in the lower reaches in Brown's Park and there is no barrier to prevent upstream migration. It is only a matter of time until the brook trout outcompete the CRCT for habitat.

The Wildlands Project adapted the above list to describe seven primary ecological "wounds" to the land:

- Direct killing of species
- Loss and degradation of ecosystems
- Fragmentation of wildlife habitat
- Loss and disruption of natural processes
- Invasion of exotic species and diseases
- poisoning of land, air, water and wildlife
- Global climate change

¹ David S. Wilcove, D. Rothstein, J. Dubow, A. Phillips and E Losos, "Quantifying Threats to Imperil Species in the United States." *BioScience* 48 (August 1, 1998): 607-615
Another categorization uses the acronym HIPPO, which stand for habitat destruction, invasive species, pollution, population (human), and overharvesting.

Concluding the Extinction section, I would like to emphasize, Close attention must be paid to permitting future projects that are going to cause habitat reduction, invasive weeds and other factors that are going to enhance the extinction process.

2.0 Oil and Gas

Oil and Gas development has been on the upswing. My concern is the infrastructure that is associated with it. Moffat County needs no more roads. It has long been documented that roads are detrimental to wildlife. Disruption of soils also has deleterious effects on wild things, both flora and fauna. Moreover, the sage grouse is at risk due to this development. Even if it is not listed on the endangered species list, continued loss of habitat will result in extirpation of this species.

There is a new study by Hall Sawyer, *et al*, who is employed by Western Ecosystems Technology, and underwritten by Questar Exploration and Production Company and the BLM. The study examines the impacts of drilling and road construction on the mule deer in the Pinedale Anticline Project Area (PAPA). http://www.west-inc.com/reports/papa_2004_report.pdf

The Uniform Format for Oil and Gas Lease Stipulations (1989) needs to be updated to reflect today's issues. It is old and outdated.

2.1 Oil and Gas Issues

- Oil and Gas exploration and development must be accomplished by using the latest technologies. No excuses will be tolerated.
- All drilling must be accomplished with self-contained drilling rigs. Sludge ponds should not be permitted.
- Drilling pads may only be the width and length of the total rig dimension.
- Vegetation must be removed with the anticipation of restoring that vegetation when drilling is complete.
- Access to the drill site may only be by "two-track." No new roads will be permitted.
- Restoration of the site shall be completed within 60 days after completion of work.
- Can construction of well sites be completed by helicopter as construction is achieved in other industries?

3.0 Motorized Recreation

Motorized recreation has been increasing, nationwide, at a very fast rate. When I was first introduced to off-road riding in Moffat County in 1985, there were very few participants. Almost

all of the activity was centered in Sand Wash Basin. There would be less than a dozen motorcycle riders and ATVs were just beginning to come into their own. 4x4 drivers were not visible. High Desert Racing Association put on a 4x4 race in 1986. Little Snake Motorcycle Club put on five races from 1986-1990. From this point on, off-road vehicle activity has grown.

I propose that a number of loop routes be established utilizing existing roads and trails. There are a massive amount of "two-track" routes within the LSRA. These routes should be identified by the BLM. There are a number of "RS2477" routes that Moffat County wants to affirm. There are a number of seismic exploration routes that were established in the 1940s. Connecting these routes into 30-50 mile loops, there could be enough routes to accommodate ORV growth for many years to come. To prevent excessive ORV damage to resources, as has happened elsewhere in the West, an adaptive management plan must be put in place.

The BLM, by identifying these potential routes, could make available maps, to potential visitors. Route markers could be installed by BLM or volunteers. If properly promoted, this could be a very positive economic impact to the communities within Moffat County. Another benefit is it would get the ORV users away from Sand Wash Basin into a more dispersed recreation. Some primitive campsites could be established in each trail network.

Trail networks in sensitive areas would not be appropriate. Each trail would need clearance to assure the BLM that sensitive resources are not being disturbed. Monitoring is essential to the longevity of this vision. Without monitoring, this concept would be doomed to failure. If a trail network is showing adverse impacts, portions of it, or all of it, must be closed until repair or regrowth is complete.

Finally, all "Open Area" must be reclassified to Limited Use. The only exception would be "ORV play area." The reason for the land classification change is to give BLM greater management options in controlling ORV use within the Resource Area.

4.0 Wildlife

4.1 Sage Grouse

Wildlife is not as abundant as it was even 30 years ago. Sage grouse has been in a decline for a number of years. The grouse has been petitioned for listing under the Endangered Species Act of 1973 (ESA). The petition has been determined as not warranted for listing. Special attention will need to be given to reverse this species decline. Any destruction of habitat, particularly sage brush, must be carefully scrutinized to determine whether there will be any potential impact on sage grouse.

4.2 Bison

It has been said to me in recent months, the reintroduction of the American Bison to Northwest Colorado would be of great value to our ecosystem. I agree. While the ranching community would be opposed to this reintroduction, bison is very strong tourist attraction in Yellowstone NP.

4.3 Gray Wolf

No discussion of a healthy wildlife population would be complete without a discussion about the gray wolf. Sightings are occurring more frequently. Officially, there have been sightings 7 miles from Baggs, Wyoming, in April 2003. In January 2004, there was a confirmed depredation about 25 miles north of Baggs. In fact, there was a "shoot on sight" permit issued by the USFWS. I personally, have witnessed a wolf chasing a pronghorn 25 miles north of the Colorado/Wyoming state line in July 2004. The Colorado Division of Wildlife Wolf Management Working Group is finalizing a management plan that essentially that as long as a wolf does not harass or predate upon livestock, they may roam free. Additionally, the gray wolf may have a positive effect on Chronic Wasting Disease (CWD). It has been said by top wolf experts that wolves can detect weakness in prey species early in the disease and will seek out those animals for predation. BLM must monitor the presence of wolves and determine the existence of rendezvous and den sites. Grazing of livestock must not be permitted near these sights or depredation of livestock is likely to occur.

4.4 Elk and Deer

Elk are multiplying at an alarming rate. Man is the only means of control, except for a few large predators. It appears that hunting is not as successful a population control as the Division of Wildlife would have us believe. CWD does not appear to be having such a great effect as was believed a few years ago. It has been shown that elk devour almost all of some areas AUM's. As the herds appear to be very large, there are many with a variety of illnesses, such as arthritis. The wolf will seek out those animals and kill them for food. Because these animals (deer and elk) are weak, the wolf will seek them out because the risk of injury is far less than a healthy animal. The result after a few years is a more healthy elk or deer herd.

4.41 Selected Quotes From Sawyer, et al

→ Although indirect impacts associated with human activity or development, have been documented in elk (*Cervus elaphus*) (Lyon 1983, Wisdom et al. 1986, Czech 1991, Morrison et al. 1995, Rowland et al. 2000), data that suggest similar behavior in mule deer (Rost and Bailey 1979, Yarmaloy et al. 1988, Easterly et al. 1992, Merrill et al. 1994) are limited and largely observational in nature.

→ Descriptions of how mule deer respond to gas development are usually based on anecdotal field observations. Two of the major shortcomings with anecdotal field observations are; 1) animals being observed may not be representative of the population, and, 2) animals may move to other areas when not being observed. Our resource selection analysis accounts for the first shortcoming by obtaining a random sample of mule deer and treating the animal as the experimental unit. The random sample is more likely to be representative of the population than simply making observations of visible animals. And, treating the marked animal as the experimental unit ensures that all animals are weighted equally in the analysis. For example, some deer may use habitats in close proximity to roads and well pads, while others may use habitats away from roads and well pads. But, because all deer are treated equally, no one deer will influence model results more than another. Our resource selection analysis accounts for the second shortcoming by using GPS data that is collected every 2 hours for the entire winter, irrespective of time of day or weather conditions.

→ There are several potential concerns with the apparent avoidance of roads and well pads by mule deer. First, the avoidance results in indirect habitat loss that can be substantially greater

than the direct habitat loss to road and well pad construction. This reduction in winter range size and quality of available habitat may decrease the carrying capacity of the overall winter range; although, changes in habitat use or distribution do not necessarily translate into lower survival or reproduction. Assuming there is some energetic cost associated with the change in distribution or habitat use and that alternate winter range is not available, the potential for negative effects on mule deer survival and reproduction exists. Initial changes in mule deer populations would most likely be evident in the fawn segment, because of their high susceptibility to overwinter mortality (White et al. 1987, Hobbs 1989, Bartmann et al. 1992). Our ability to detect population changes (<20%) in large, free-ranging populations is limited. However, when compared to the control area, point estimates for overwinter fawn survival have been lower in the treatment area for 3 of the 4 years since development began.

Future analysis will likely involve estimation and comparison of trends between the treatment and control areas. And, long-term monitoring programs will continue to provide the best opportunities for detecting changes in population parameters and to verify if this apparent impact of development on survival is real, and significant.

→ We continue to monitor four population parameters to detect changes in the Sublette herd unit, including: 1) overwinter fawn survival, 2) adult doe survival, 3) reproduction, and 4) density. Overwinter fawn survival, adult doe survival, and reproduction measures for control and treatment areas were similar during the 2003-04 winter. While reproduction was higher than previous years, survival for both fawns and adults was substantially lower. The winter of 2003-04 was the most severe winter since 1992-93 and the low survival rates (0.36 for fawns, 0.79 for adults), particularly among fawns, reflected the harsh conditions.

→ While results from our resource selection analyses suggest natural gas development in the PAPA has affected mule deer habitat use, no statistically significant changes in survival or reproduction have been detected. As we continue to measure population parameters and examine habitat selection in treatment and control areas, comparisons can be made, and over time, the potential impacts of energy development on mule deer may be better understood. For this study, the number of captured deer or counted deer may refine the precision of the measurement (e.g., survival, reproduction), but the strength of this monitoring plan and robustness of the conclusions will be determined by the number of years it is implemented. Future analysis will likely involve estimation and comparison of trends between the treatment and control areas. And, long-term monitoring programs will continue to provide the best opportunities for detecting changes in population parameters and to verify if this apparent impact of development on survival is real, and significant

4.42 Conclusions on Deer and Elk

While the portions of the Sawyer study are not conclusive, it indicates the need for long term monitoring of gas fields. Permitting must be cautious. Of concern, are indirect habitat losses. Avoidance of these habitat losses could reduce the carrying capacity of the range.

While I am not a biologist, I raise these concerns so that BLM biologists can analyze these, and other concerns about wildlife/oil and gas development. Moreover, this study raises the issue of monitoring and adaptive management. It also indicates the problems with unreliable anecdotal observation. Once again, the BLM must move forward with extreme caution while in the arena of gas and oil leasing.

4.5 Wild Horses

Wild horses are a part of our heritage. There are some that would see them removed from the wild. They are a portion of our custom and culture. Wild horses need our, and the BLM's, protection.

4.6 Pronghorn

I do not know much about pronghorn, other than there is concern about the pronghorn migration routes. Some of these routes are identified, but most are not. It also appears that pronghorn have an aversion to roads and structures. It is incumbent upon the BLM that no roads or structures be built in close proximity to historic migration routes used by pronghorn.

4.7 Grizzly Bear

The grizzly bear roamed throughout Colorado, including the eastern plains (CDOW). It is one of the missing links in our ecosystem. Without the grizzly, the trophic cascade is incomplete. But the grizzly bear needs vast tracks of roadless areas.

5.0 Grazing

5.1 Introduction To Grazing

For many years, this author has advocated managed grazing. As a former member of Colorado Riparian Association, I was exposed to many different grazing practices. Moreover, I took a three day seminar in Rock Springs, Wyoming (1998), on managed grazing, by Miles Keogh (after Allan Savory). Keogh advocated moving livestock to a different pasture as the stubble height approached threshold height. What his premise was, "Intensive grazing over a short duration." Applying Keogh's premise, I raise the following issues that the BLM should address during the RMP revision. My concern is for better range health.

5.2 Grazing Issues

→ Grazing allotments shall be divided up into smaller "sub-allotments" so that grazing can be managed.

→ Grazing shall be managed by the of stubble height of the particular sub-allotment, rather than the time in the sub-allotment. When the stubble height reaches a predetermine threshold, the livestock shall be moved to the next sub-allotment.

→ Grazing shall be controlled in riparian areas. Close attention shall be given to sedge stubble height.

→ Willow and cottonwood shall be monitored closely to ascertain foraging damage. When damage reaches a pre-determined threshold, livestock will be excluded from that particular riparian zone.

→ Livestock must have access to water. However, water quality must remain as high as possible. Livestock must not stand in the middle of the water source for extended periods of time. It is suggested that off-channel watering be developed by the BLM and allotment permittees.

→ If it is found that livestock are not utilizing the off-channel watering facilities, the area must be fenced to exclude the livestock from the water source.

→ Gaps in the riparian zone may be utilized for livestock water crossings. If gaps do not occur naturally, BLM and the permittee may develop water crossings in appropriate locations.

→ Each sub-allotment shall be monitored to determine utilization of forage. Monitoring transects shall be established in the upland and riparian areas of each sub-allotment.

6.0 Fisheries

While the RMP revision is a landscape view of how the BLM manages the land, this fisheries section will apply to specific concerns about individual waters. The applications that I am suggesting can and should be applied regionally.

6.1 Warm Water Fisheries

There are not many fisheries within the jurisdiction of the LSFO. The main waters are the Yampa River and the Little Snake River. The riparian habitat on these streams probably have been inventoried. Where the habitat has been determined "At Risk," an effort should be made by the BLM to upgrade this to "Properly Functioning." There are four species of fish in the big river fisheries that are protected under the ESA. There are more species that will come under review. There are two major reasons for these dwindling populations; nonnative fish intrusion and loss of habitat. Habitat restoration is what the BLM can and should accomplish.

6.2 Cold Water Fisheries

LSFO has only three major streams that are perennially flowing cold water stream; Slater Creek, Willow Creek and Beaver Creek. There may be more that I am not aware of. Most of Slater Creek is on private land and there is not much that the BLM can do about it. Where Slater Ck is on public land, riparian vegetation should be restored.

Willow Creek holds a good population of Colorado River cutthroat trout (CRCT) upstream in the forest. Brook trout have been stocked in the downstream portion of private property. The only treatment that the BLM can do is manage the riparian vegetation. Grazing here is an issue. Refer to my section 5.2 on grazing issues.

Beaver Creek holds an outstanding population of CRCT in the headwaters. There are brook trout upstream of the confluence of the Green River. CRCT have been petitioned for listing under the ESA, but were rejected by the US Fish and Wildlife Service. I suspect a lawsuit will be introduced to circumvent that administrative decision. Therefore, a migration barrier will need to be built at the lower end of the CRCT habitat to prevent the brook trout from invading the

CRCT habitat.

7.0 Adaptive Management

Monitoring resources is the backbone of adaptive management (AM). AM will need to be applied to all aspects of BLM activities within the resource area. It will take more time to do the needed field work, but the results will be a healthier ecosystem. Every activity that the BLM does needs to be monitored. Monitoring will reveal all aspects of an activity, both adverse and positive. This will allow the BLM to make changes in the activity, depending on what the monitoring tells the specialist. AM must be implemented in small segments at first. Understanding AM and how it can work requires “one small step at a time.”

8.0 Habitat Management

This is an area that I can only comment on as a concern. BLM has been as guilty as any of the users for habitat destruction. Brush beating, chaining and controlled burns destroys sage and weeds, but also kills wildlife and wildlife habitat. The use of nonnative species to control other nonnative species is also concerning. Domestic goats use is far better than chaining or controlled burns. Without the use of controlled burns or chaining, wildlife has an opportunity to live. Natural fire is totally acceptable. Land uses, such as oil and gas production must be limited in how much habitat they destroy. The latest technologies must be utilized. In my view, the current practices of the oil and gas industries is accelerating the third wave of extinction. One only has to view the Pinedale Anticline. All wildlife migration corridors are at risk. There is one near Cora, Wyoming, that if destroyed, will cause extirpation of pronghorn in Grand Teton National Park. Let us not have that kind of problem in LSRA.

9.0 Causes for Extinction

9.1 Habitat Destruction

There are many human caused sources of habitat destruction. Mining, oil and gas development, agriculture, road building and OHV use and housing encroachment, to name a few. The BLM must take steps to curb this destruction of habitat. The US Fish and Wildlife Service recently declined to list the greater sage grouse as an endangered species. If the grouse's habitat continues to be destroyed, listing is inevitable.

9.2 Non-Native Species

Nonnative or invasive species is a double-edged sword. Some invasive species can be beneficial while others can be a serious detriment to the health of the ecosystem. Caution must be used if invasive species are used to control other species. For the most part, nonnative species compete with native species and often outcompete the natives for forage, ie brook trout v. native species.

9.3 Pollution

Pollution is a very contentious issue. However, since pollution is a cause for extinction, the BLM

must use extreme care to prevent any kind of air, water or land pollution. As an example, it is said that methane coal bed extraction exhaust waters can be very polluted. Therefore, BLM must be very cautious that these operators do not discharge waste waters onto the land or into waterways. There are other industries that have waste discharges. BLM must do the very best to reduce these pollutants.

9.4 Overexploitation

Overexploitation is a very serious issue. In most cases with Federal lands, it is overexploitation of the land. Oil and gas development grazing are the most visible. Not only is over use of the land a detriment, it also destroys habitat. How many species are extirpated from overexploitation? BLM must reduce this very real threat to all taxa existence.

9.5 Disease

Whirling Disease and Chronic Wasting Disease are what face BLM today. I am unaware of other flora and fauna diseases at this time. Disease is an insidious killer. We have seen what disease can do to humans. Whole species can be wiped out in a relatively short time. I illustrate the upper respiratory disease syndrome that affected the desert tortoise. There was a very significant reduction of this species that warranted listing under the ESA. Also, the black-footed ferret was almost lost due to disease. This can happen in this resource area with different diseases and different species. The BLM must be watchful and attempt to detect diseases early in their infectious stages.