

Allotment Assessment North Fork Field

I. Name and Number of Allotment

North Fork Field Allotment #01088
Permittee: Cedar Creek Cattle Company

II. Livestock Use

1. Preference: 570 AUMs
2. Historic Use Range: 169 to 1774 AUMs
3. Suspended Preference: 0 AUMs
4. Season of Use: 7/01 to 7/30
5. Kind and Class of Livestock: 570 cattle
6. Percent Public Land: 72%

III. Allotment Profile

1. The North Fork Field Allotment is located in the southeast part of the Jarbidge Field Office Area. This allotment is located in MUA-15. There is one pasture in this allotment. The current permit was issued September 1, 1999 authorizing 562 AUMs. This permit is valid until February 28, 2005.
2. Federal Acreage: 3,354
3. MUA Objectives (Jarbidge RMP, 1987):
 - Increase forage allocated to livestock from 25,098 to 26,466 AUMs in MUA-15 by the year 2005 (II-56). North Fork Field Allotment is 1.2% of MUA-15; 20-year use was to increase to 590 AUMs. This increase in use would result from the availability of additional forage from water developments, brush control and seeding projects and improvement in native range condition (II-3).
 - Maintain 24,159 acres of existing vegetative improvements (II-56).
 - Improve 36,207 acres of lands in poor ecological condition (II-56).
 - Manage big game habitat in MUA-15 to support 2400 mule deer in winter, 1285 mule deer the rest of the year, and 1170 antelope. Existing numbers were 1,200 mule deer in winter, 995 the rest of year; 900 antelope and 2 bighorns. Protect crucial winter big game habitat (II-56).
 - Manage big game habitat in MUA-15 to support 2400 mule deer in winter, 1285 mule deer the rest of the year, and 1170 antelope. Existing numbers were 1,200 mule deer in winter, 995 the rest of year; 900 antelope and 2 bighorns. Protect crucial winter big game habitat (II-56).
 - Note: The objective for bighorn sheep applies to the Jarbidge River Canyon which is over 30 miles from this allotment.
 - Improve 4900 acres of big game habitat by 2005 in MUA-15 (II-56).
 - In MUA-15, improve 4.7 miles of fisheries habitat and 9.6 miles of riparian habitat by 2005 (II-56).

4. Key Forage Species:
 - o Bluebunch wheatgrass
 - o Idaho Fescue
5. Grazing System: The grazing use in this Allotment is outlined in the Livestock Management Plan, Tews Land and Livestock. The Allotment is scheduled for deferred grazing schedule in the summer and fall (July through December) in conjunction with other allotments which the permittees have permitted use. The allotment is never scheduled for use during the critical growth period in the spring between boot stage and flowering of the key species.

IV. Management Evaluation

The purpose of this evaluation is to determine the allotment’s status in meeting the Standards for Rangeland Health and Guidelines for Livestock Management and to renew the grazing permit with management guidelines to meet these Standards.

A. Summary of Studies Data

1. Actual Use

Table 1 shows the actual use since from 1990 to 2002.

Table 1 - Actual Use

Grazing Season	AUMs
1990	1065
1991	1774
1992	1003
1993	494
1994	1123
1995	1449
1996	752
1997	986
1998	1081
1999	564
2000	405
2001	169
2002	340

2. Climate

Long term (49 year) annual precipitation average for the Three Creek NOAA Weather Station is 11.45 inches and for the BLM Monument Spring rain gauge, the annual average is 26.6 inches for the past ten years. Table 2 shows the yearly precipitation average for the water year at the Monument Spring rain gauge which is representative of this allotment. Also shown is the crop year index for the Three Creek Weather Station. The Yield Index is a precipitation-yield relation which provides reliable and effective information for use in comparing annual production yields

to what is expected in a normal year. The Yield Index is used in forecasting and adjusting range forage estimates.

Table 2 - Water Year Precipitation and Yield Index

Year	Monument Spring (inches)	Yield Index At Three Creek
1993	6.1^	NA
1994	22.5	.72
1995	33.2*	2.02
1996	21.7	.74
1997	27.7	1.45
1998	34.3*	1.62
1999	24.7	1.27
2000	25.8	.82
2001	25.8	.96
2002	25.3	.99
2003	24.5	1.02

^ Incomplete. Only includes last 2 quarters of '93.

*Above average precipitation.

3. Utilization

Median stubble height utilization data was gathered on riparian species in the key riparian area in Rocky Canyon in 2001 and 2003 as shown in Table 3.

Table 3 - Utilization Data

Year	Median Stubble Ht.
7/31/2003	12 inches
10/26/2001	2.5 -3.5 inches
8/2/2001	2.5-5 inches

4. Production

No production data is available for this allotment.

5. Condition and Trend

In July 1987, two long-term vegetation/soil cover monitoring study sites were established in the North Fork Field allotment in cooperation with the permittee. In accordance with the Minimum Monitoring Standards for BLM Rangelands in Idaho, the study methods initiated included nested plot frequency, percent ground cover, shrub density, and 3X3 plot data and site photographs. In this allotment, both study sites are situated in native plant communities in the following legal locations (site #), range sites, and elevations:

16S13E14; Arar8/Feid, Shallow Claypan 12-16” @ 7,110 feet, and 16S13E24; Artrv/Feid, Loamy 16+” @ 6,520 feet.

Although both of the sites were mistakenly established on open private lands, they both well represent vegetative and soil cover trends on nearby and adjacent federal lands.

The two study sites were revisited in 1991. The analysis and evaluation of these long-term studies as well as the ecological condition in the 1981-82 inventory are summarized in Table 4.

Table 4: Condition and Trend Evaluation of Native Vegetation Study Sites

1981-83 Inventory Site	Inventory Site Location	Trend Site	Vegetation Type	1981-83 Ecological Rating*	Trend
LH-136	16S14E30	16S13E14	Arar8/Feid	PNC	Static
LH-91	16S13E28	16S13E24	Artrv/Feid	PNC	Static

* Condition was determined from vegetation inventories in 1983. Jarbidge RMP referred to Range Condition as: Excellent, Good, Fair, Poor. Since that time these terms have been related to; Potential Natural Community, Late Seral, Mid Seral & Early Seral, respectively. Value terms of excellent, good, fair, poor are only used as a value rating for areas rehabilitated with *Agropyron cristatum* and *Agropyron intermedium*

Trend site summaries have been completed for all of the study sites evaluated. These analyses are in the Allotment Study files of the field office and can be reviewed upon request.

Both study sites monitored in the North Fork Field allotment are meeting the RMP objective for maintaining native plant communities in potential natural community (PNC) or excellent condition as described by the 1983 range survey.

B. Rangeland Health Assessment

In 2002, rangeland health data was gathered on the Allotment at two ecological sites within native range. Rangeland health data was collected per Technical Reference 1734-6, *Interpreting Indicators of Rangeland Health*. The rangeland health data was collected by an interdisciplinary team for the purposes of making a quantitative assessment of the soil/site stability, hydrologic function, and the integrity of the biotic community for the various ecological sites.

Two transects were read at various ecological sites and are identified as NFF-1 and NFF-2. The “Preponderance of Evidence” based on the two transects, is shown in Table 5. The degree of departure or deviation from the potential ecological site description (None to Slight, Slight to Moderate, Moderate, Moderate to Extreme, or Extreme) is made based on an evaluation of the data.

Table 5 - Preponderance of Evidence

Attribute (The sites are considered meeting attributes if not mentioned)		Deviation From Potential				
		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
Soil Site Stability Rationale: there is a slight deviation in the length of flow patterns (NFF-1). Some bunchgrass roots show in low sagebrush areas which indicates some soil loss (NFF-1). Bareground is slightly higher than expected for the site (NFF-1, 2).	Native					NFF-1, NFF-2
Biotic Integrity Rationale: Big sagebrush slightly more decadent than expected (NFF-1).	Native					NFF-1, NFF-2
Hydrologic Function Rationale:	Native					NFF-1, NFF-2

1. Standard 1 – Watershed

Both of the sites assessed were noted to be within none to slight deviation from expected and all indicators were being met. This means that flow patterns were few with slight deposition and surface litter was in place. There was little evidence of plant pedestaling due to water or wind erosion. There was minimal soil crusting and no evidence of a compaction layer. There was some evidence of hoof prints, but deep hoof prints were uncommon. Rills and gullies were not noted.

2. Standard 2 - Riparian Zones and Wetlands and Standard 3 - Stream Channel/Floodplain

The following principal stream reaches (Table 6) are present in the North Fork Allotment.

Table 6. Stream Reach Functionality Rating

Stream (year inventoried/ monitored)	Inventory Reach #	Miles	Dominant Vegetation	Functionality Rating	Comments
Rocky Canyon Creek 1999, 2001 - 2003	.7 – 2.0	1.3	Sedge/Hairgrass Willow	FAR Functioning- at risk	Steadily improving under ongoing riding by the permittee
Timber Canyon Creek 1999, 2002, 2003	.7 – 2.3	1.6	Poa/Willow/	FAR	System is impacted and very degraded.

Rocky Canyon Creek flows through a narrowly confined canyon. Livestock use has been concentrated between segment 1.1 to 1.5 where the floodplain is fairly broad and open. Above and below these points, the canyon is very box-like and wooded, with a Rosgen A-type channel, and livestock use is limited to small areas where the woody vegetation opens along the stream banks. Portions of Rocky Canyon have down cut in the steeper reaches. The channel is too wide in areas with a flatter gradient (C channel).

Because the canyon that this creek flows through is so confined, livestock tend to congregate in the bottom for most of the summer. As a result, the stream banks and channel were in a much degraded condition. During 2001 and 2002, the permittee actively rode and moved cattle out of the canyon downstream to private land in an effort to keep stream bank stubble height at or above four inches. During this period, Rocky Canyon showed improvement. In conjunction with this improvement, there has been a widening in the riparian zone, i.e., an observed notable increase in the vigor and number of early and late seral herbaceous riparian plants, such as small-winged sedge and swordleaf rush. Riparian woody vegetation has also increased in number and vigor. The presence of beaver in this stretch has also benefited the widening of the riparian zone. With the increase in stream bank riparian vegetation, the channel somewhat narrowed and the riparian zone widened, allowing the water table to increase. On July 31, 2003, Rocky Canyon was monitored and a further increase of herbaceous riparian species was observed. Median herbaceous vegetation height exceeded 12 inches. After this date, livestock grazed North Fork Allotment. Measured stubble height on October 21, 2003, was five inches (median), which still exceeds the minimum of four inches. It appears that cowboy efforts this year may not have been intensive as in the previous two years, based on the amount of bank trampling observed this year, compared to 2002 and 2001.

Timber Canyon Creek is extensively used by livestock during the summer and efforts to regularly clean cattle out of this riparian area have not been made. Consequently, stream banks in most areas of the creek are highly trampled. The lack of adequate, healthy stream banks has decreased the capability of the riparian zone to store water. This is causing the riparian zone to narrow and allowing for the encroachment of upland species, such as rabbitbrush and sagebrush, into the floodplain and wetland areas along the creek. Herbaceous riparian wetland species are decreasing and upland species are encroaching. It has been observed that the flows in Timber Canyon Creek have been decreasing. At least in the last two years, flows ceased in August/September. It is likely that flows would return to their normal level if recovery of this creek were implemented.

In 2001, the north allotment boundary fence was reconstructed, and resulted in the live portions of Rocky and Timber Canyon Creeks lying entirely within the North Fork Allotment.

Approximately .10 mile of Barbour Creek flows through BLM land. Barbour Spring and the remainder of the creek flow through private land. Barbour Creek has not been evaluated.

3. Standard 4 - Native Plant Communities

Both sites sampled were classified as loamy 16+ range sites. However, vegetatively they were quite different. Low sagebrush was the dominant shrub at NF-1 and mountain big sagebrush was the dominant shrub at NF-2. At the mountain big sagebrush site, sagebrush provided 13 percent of the canopy cover and averaged 17.5" tall. The grass component provided 68 percent cover with an 8.3 inch average grass height. The most abundant grass was Idaho fescue (49 percent

cover) followed by bluebunch wheatgrass (15 percent) and bluegrass (4 percent). The perennial forb component was very diverse and abundant (24 percent cover) with a number of sage grouse preferred forbs present. Lupine was the most abundant forb, followed by phlox and valley yellow violet. Exotic species (cheatgrass) were present in trace amounts. Bare ground was 11 percent, and there was 4 percent rock cover.

The low sagebrush site (NF-1) contained 19 percent sagebrush cover, primarily low sagebrush, and an additional 8 percent shrub cover was rabbitbrush. Shrub height was 8.4 inches. The short shrub height was due in part to the shallow rocky soils and the topographic position. Some of the low sagebrush exceeded 16 inches and mountain big sagebrush patches were present a short distance from this site. Grass cover was 31 percent and averaged 7.4 inches in height (near the end of the grazing season). Bluebunch wheatgrass (14 percent cover) and Idaho Fescue (12 percent) were the most abundant grasses. Forb cover was 10 percent, but there was a high amount of diversity and some sage grouse preferred forbs were classified as abundant. The most abundant forbs were in the genus *Phlox*. Exotic species (cheatgrass) was present in trace amounts. Bare ground was 10 percent and due to the type of site (wind swept ridge) there were a large amount of rock (36 percent).

No studies were placed in quaking aspen and mountain mahogany plant communities. Both plant communities provide habitat for a number of wildlife species including several on the Idaho BLM sensitive and watch lists. No winter range for mule deer or antelope is present in the allotment.

4. Standard 5 - Seedings

Not Applicable.

5. Standard 6 – Exotic Plant Communities, Other Than Seedings

Not Applicable.

6. Standard 7 – Water Quality

Neither of the major creeks (Rocky Canyon and Timber Canyon) in the allotment has been monitored for water quality by the BLM and therefore water quality characteristics were unknown. However, it is likely that sedimentation may have been a major water quality limiting concern of both creeks based on recent “functional-at-risk” riparian survey ratings (see Standard 2).

7. Standard 8 - Threatened and Endangered Plants and Animals

A number of species presently designated as Sensitive species are present in the allotment. For the most part, the allotment has not been inventoried for sensitive species. Sensitive species occurrences are frequently noted from incidental observations. BLM lacks any inventory on bat species in the North Fork Allotment. Also a number of wildlife species presently designated as “watch” are present. Watch species are **not** presently designated as Sensitive species, but may be added to the sensitive list in future years. The only sensitive BLM plant species known to occur in the North Fork Allotment is Simpson hedgehog cactus. Only limited surveys for sensitive plants have been conducted in this allotment and more species may occur. It appears that all indicators are being met for the special status plant species known from the allotment. Impacts from livestock have either been described as “slight”, or they have not been reported or

observed at some of the plant locations. Impacts to other sensitive species which may be present are unknown. All these species are shown in Table 6.

Table 6 - Idaho BLM Sensitive and Watch species in the North Fork Allotment

Common Name	Scientific Name	Status	Presence
Columbia spotted frog	<i>Rana lutiventris</i>	C	C
Greater sage grouse	<i>Centrocercus urophasianus</i>	S	C
Columbian sharp-tailed grouse	<i>Tympanuchus phasianellus columbianus</i>	S	C
Mountain quail	<i>Oreotyx pictus</i>	S	H
Prairie falcon	<i>Falco mexicanus</i>	S	C
Northern goshawk	<i>Accipiter gentilis</i>	S	C
Brewer's sparrow	<i>Spizella breweri</i>	S	C
Sage sparrow	<i>Amphispiza belli</i>	S	C
Calliope hummingbird	<i>Stellula calliope</i>	S	C
Lewis woodpecker	<i>Melanerpes lewis</i>	S	C
Willow flycatcher	<i>Empidonax trailli</i>	S	C
Redband trout	<i>Oncorhynchus mykiss gairdneri</i>	S	C
Simpson hedgehog cactus	<i>Pediocactus simpsonii robustior</i>	S	C
Swainson's hawk	<i>Buteo swainsoni</i>	W	C
Sage thrasher	<i>Oreoscoptes montanus</i>	W	C
Green-tailed towhee	<i>Pipilo chlorurus</i>	W	C
Brewer's blackbird	<i>Euphagus cyanocephalus</i>	W	C
Cassin's finch	<i>Carpodacus cassinii</i>	W	C
Red-naped sapsucker	<i>Sphyrapicus nuchalis</i>	W	C
Virginia's warbler	<i>Vermivora virginiae</i>	W	L
Cordilleran flycatcher	<i>Empidonax occidentalis</i>	W	L
Status codes: S = designated Sensitive species; C = FWS candidate species; W = Watch category			
Presence codes: C = presence confirmed in allotment; L = presence likely in the allotment; H = historic, likely extirpated			

Columbia spotted frog. Spotted frogs are presently designated a Candidate species south of the Snake River by the U.S. Fish & Wildlife Service. Spotted frogs are known to be present in Rocky Canyon in the North Fork Allotment. Breeding habitat is provided by beaver ponds present in this drainage. Over-wintering habitat may be in seeps/springs or in the mud in the bottom of the beaver ponds. Timber Canyon has not been inventoried for this species.

Greater sage grouse. There are no records of sage grouse leks in the North Fork Allotment, however, there have been no recent inventory efforts in this area. One active sage grouse lek is known to be present (2T-163) within 2 miles of the allotment at a similar elevation. Research on sage grouse in the early 1990's documented the movement of sage grouse from lower elevations (5200 feet) on Browns Bench to higher elevations (7500 feet) as summer progressed. Fresh sage grouse scat was observed at both sites indicating late fall brood habitat as well as some nesting and brood habitat. Areas with mountain big sagebrush and taller low sagebrush provide nesting and winter habitat. Grazing Idaho fescue, western needlegrass, and Sandberg bluegrass to a 40%

use level will not provide the minimum residual cover for sage grouse nesting. A 40% use level or less will likely provide areas of adequate residual cover for sites dominated by bluebunch wheatgrass.

Columbian sharp-tailed grouse. Radio marked Columbian sharp-tailed grouse were documented in mountain shrub habitats in this allotment. Mountain shrub communities with chokecherry and serviceberry as well as aspen stands provide important winter habitat for sharp-tailed grouse.

Mountain quail. Mountain quail were historically present in several canyons in the area. They are believed to have been extirpated in the 1970's.

Northern goshawk. One goshawk has been observed in an aspen stand in Timber Canyon. No nest sites have been documented, however, the area has not been inventoried.

Brewer's sparrow and sage sparrow. Both species are known to be present in mountain big sagebrush habitats in the allotment. Low sagebrush habitats do not appear to provide adequate structure (shrub height) for the nesting of these species.

Calliope hummingbird. Calliope hummingbird has been observed in the North Fork Allotment in an aspen stand near the North Fork of Salmon Falls Creek.

Lewis woodpecker. A nest tree for this species was found in 1998 at the lower end of Rocky Canyon in a stand of larger aspen. Other aspen stands provide suitable habitat for this species.

Willow flycatcher. Singing willow flycatchers were heard in the willow riparian zone associated with beaver ponds in Rocky Canyon.

Redband trout. Data collected by the BLM fisheries biologist in the early 1980's documented redband trout in both Rocky Canyon and Timber Canyon. An inventory effort in 2002 did not result in any redband trout being caught in Rocky Canyon. Timber Canyon was not sampled in 2002.

Simpson's hedgehog cactus. Seven locations of this small, barrel cactus are known to occur in this allotment. It is found primarily on gravelly soils in low sagebrush/Idaho fescue plant communities. Threats to this species are primarily from collection of plants from the wild, but fire, habitat degradation, and trampling from livestock also impact this species.

Neither slickspot peppergrass nor its habitat is known to occur in this allotment.

C. Guidelines for Grazing Management

The allotment is not grazed during the critical growth period of key species. The current grazing management is not meeting the following Grazing Management Guidelines:

Guideline 5 – Maintain or promote grazing management practices that provide sufficient residual vegetation to improve, restore, or maintain healthy riparian-wetland functions and structure for energy dissipation, sediment capture, ground water recharge, streambank stability, and wildlife habitat appropriate to site potential.

Guideline 7 – Apply grazing management practices to maintain, promote, or progress toward appropriate stream channel and streambank morphology and functions. Adverse impacts due to livestock grazing will be addressed.

Guideline 20 – Design management fences to minimize adverse impacts, such as habitat fragmentation, to maintain habitat integrity and connectivity for native plants and animals.

V. Conclusions

The indicators for Standard 1 (Watershed) and Standard 8 (Sensitive Species - terrestrial) are being met. Standard 4 (Native Plants) is being met in the shrub-steppe ecosystem, but it is unknown if it is being met in the Aspen Woodland and/or Mahogany Savannah plant communities, since no data was collected. The indicators for Standards 2 (Riparian and Wetlands) and Standard 3 (Stream Channel/Floodplain) are not being met. Standard 8 for aquatic sensitive species is not being met.

VI. Consultation

Arnold Pike, Range Conservationist
Cedar Creek Cattle Co.-Chuck Jones
Clare Josaitis, Natural Resource Specialist
Jeff Ross, Archaeologist
Jim Klott, Wildlife Biologist
John Ash, NRS – Climate, Monitoring, WQ
Sheri Hagwood, Botanist

VII. Recommendations

Maintain grazing permit at 570 AUMs. The proposed permitted AUMs would result in an expected utilization of less than 40% at key areas.

Manage for light utilization levels (up to 40%) in native pastures in order to maintain the existing native communities. Under the forage allocation proposed, a portion of the forage production would be allocated to watershed and wildlife, and would maintain the native plant communities and provide habitat for wildlife.

Conduct Ecological Site Inventory of the Aspen Woodland and Mahogany Savannah communities. Apply a trampling and browse standard to aspen stands.

A portion of the allotment boundary fence was 4 and 5 strands with the top wire exceeding 50” in height. Change the allotment boundary fence to BLM standards for mule deer and elk wire spacing.

No salting within 0.25 miles of areas with Simpson’s hedgehog cactus.

Manage Rocky Canyon and Timber Canyon creeks for improved riparian conditions (or PFC) and water quality to benefit redband trout habitat and Columbia spotted frogs. Apply stubble height bank alteration standards to the riparian zones in this allotment.

Construct a fence to segregate Timber Canyon Creek and Rocky Canyon Creek Riparian areas from the remainder of the allotment and manage it as a riparian pasture.