

# **Allotment Assessment**

## **Noh Field**

### **I. Name and Number of Allotment**

Noh Field Allotment #01140  
Permittee: Cedar Creek Cattle Co.

### **II. Livestock Use**

1. Preference: 528 AUMs
2. Historic Use Range: 408 to 1,479 AUMs
3. Suspended Preference: 0 AUMs
4. Season of Use: 12/01 to 12/30  
(TNR authorizations included grazing use through February 28)
5. Kind and Class of Livestock: 528 Cattle
6. Percent Public Land: 100%

### **III. Allotment Profile**

1. The Noh Field Allotment is located in the central east part of the Jarbidge Field Office Area. Approximately 80% is located in MUA 7 and 20% is located in MUA 12. There are 2 pastures in this allotment. The current permit was issued on September 1, 1999 authorizing Cedar Creek Cattle Co. 521 AUMs. This permit is valid until February 28, 2005. Since 1990, temporary nonrenewable (TNR) was authorized in all years except 1990, 1992 and 2002. The allotment TNR authorizations are included in Table 1.
2. Federal Acreage: 6,122
3. MUA Objectives (Jarbidge RMP, 1987):
  - increase AUMs of forage issued for livestock in MUA-12 from 33,650 to 44,854 by the year 2005 (II-48); increase AUMs of forage issued for livestock in MUA 7 from 37,097 to 70,113 by the year 2005 (II-32); Noh Field is 3% of MUA 12 and 2% of MUA 7. This increase 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 155,612 acres of existing vegetative improvements in MUA 7 and 23,518 acres in MUA 12 (II-31, II-47);
  - improve 123,921 acres of lands in poor ecological condition in MUA 7 and 123,980 acres in MUA 12 (II-31, II-47);
  - manage big game habitat in MUA 12 to support increased populations of mule deer (50%) and antelope (8%) (II-48); manage big game habitat in MUA 7 to support increased (2x) mule deer and antelope populations (II-31)

- improve sage grouse habitat (II-48);
  - maintain existing upland game bird nesting and cover habitats in MUA 7 (II-31);
4. Key Forage Species:
- Crested wheatgrass
  - Thurber needlegrass
  - Sandburg bluegrass
5. Grazing System: The grazing use in this Allotment is outlined in the Livestock Management Plan, Tews Land and Livestock. The Allotment is used by cattle in the late spring, fall and winter (January through April) in conjunction with other allotments in which the permittees have permitted use. The pastures are rotated so as not to graze cattle during the critical growth period (April) of key species two consecutive years.

#### 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	408
1991	1224
1992	408
1993	703
1994	1234
1995	958
1996	1117
1997	1278
1998	1479
1999	1268
2000	1140
2001	713
2002	495

## 2. Climate

Long term water year precipitation (September through June) for **Castleford** NOAA Weather Station is 9.41 inches, for **Hollister** NOAA Weather Station is 9.62 inches, and for the BLM **Big Hill** rain gauge, the nine year annual average is 8.7 inches. Table 2 shows the yearly moisture totals for the past 9 water years at the Big Hill station which is representative of this allotment. Also shown are the yield indexes for the Castleford and Hollister Weather Stations. 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	Big Hill (in inches)	Yield Index At Castleford	Yield Index at Hollister
1995	7.3	1.25	1.94
1996	11.4*	1.18	1.28
1997	12.6*	1.50	1.41
1998	11.3*	0.75	1.72
1999	5.6	0.76	1.05
2000	7.7	0.53	0.49
2001	6.5	0.39	0.52
2002	8.5	0.57	0.88
2003	7.4	0.59	0.75

\*Above average precipitation.

## 3. Utilization

Table 3 shows the actual data from sampling crested wheatgrass at transects in the Allotment prior to issuance of TNR.

**Table 3 - Utilization Data**

Year	Vegetation	Utilization Range
2001	Crested Wheatgrass	19.7% to 48%
2001	Native	5.6%-28%
2002	Crested Wheatgrass	10-15%
2002	Native	NA

#### 4. Production

Appendix 1 displays the production data that has been collected in the Noh Field Allotment. It shows that 2,358,152 pounds of forage vegetation is produced during a near normal production year. Forage vegetation refers to grasses, and in seeded areas may include alfalfa and sainfoin. The production of forbs and shrubs is not included in this poundage. Considering precipitation data and its relationship to drought, as well as the needs of the watershed and wildlife, it is estimated that 1,073 AUMs of forage vegetation is available for livestock.

#### 5. Condition and Trend

There are no long-term trend studies established in this allotment, therefore vegetative trends are unknown.

**Table 5a – Condition and Trend Evaluation of Native Vegetation Study Sites**

1981-83 Inventory Site	Inventory Site Location	Vegetation Type 1981-83 (2002-03)**	1981-83 Ecological Rating*	2002-03 Production Studies Name/Rating
RA-35	10S11E01	Brte/Sihy(burn)	Mid	
RA-38	10S11E13	Artrw/Brte (Artrw/Stth2)	Early	NOHP-2/Late
LH-32	10S12E09	Artrw/Posa3	Early	

**Table 5b – Condition and Trend Evaluation of Seeding Study Sites**

1981-83 Inventory Site	Inventory Site Location	Vegetation Type	2002-03 Condition Rating*
RA-36	10S11E01	Agcr/Brte	Excellent

\*Jarbidge RMP referred to Range Condition as: Excellent, Good, Fair, and Poor. Since that time these terms have been related to; Potential Natural Community, Late Seral, Mid Seral and 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*.

\*\* “()” indicate the current vegetation if different from 1981-83 Inventory.

The Wyoming Sagebrush/Thurber’s needlegrass native plant community in this allotment was rated as being in a mid-seral state in 2003. This was based on productivity of the plant species present. Thurber’s and Wyoming sagebrush had lower productivity than the reference area described in the ecological site description. The native annual grasses were absent. Forbs were on the low end of the reference plant community range. Two invasive, non-native species were present in low amounts: cheatgrass and bur buttercup.

## **B. Rangeland Health Assessment**

In 2002, rangeland health data was gathered on the Allotment at one ecological sites within native range, and two ranges site within seedings. 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.

Three transects were read at various ecological sites and are identified as NF-1 to NF-3. The “Preponderance of Evidence” based on the three 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**

**Noh Field**

Attribute (The sites are considered meeting attributed not mentioned)		Deviation From Potential				
		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
Soil Site Stability Rationale: Bareground at 16% as compared to less than 10% (NF-1,3). Wind scouring and deposits evident (NF-1, 3), but they occurred after the fire. Weak soil surface resistance to moisture as pedon dissolved readily in water. The soil depth to hardpan is about 4 to 5 inches less, than described in the soil inventory (NF-3).	<i>Native</i>					NF-2
	<i>Seedings</i>				NF-1, NF-3	
Biotic Integrity Rationale: There are a somewhat low perennial forbs, annual forbs, and Perennial native grass (NF-2 and PEG at NF-1). The production is 75 to 100% of capability at NF-3; 25 to 50% at NF-2; and 50 to 75% at NF-1. All other indicators are what is expected at this site. There is a 2 inch compaction layer with horizontal roots indicating a barrier to roots (NF-3). Legumes (Nitrogen fixers) are low in composition. (NF-3). Also Sandberg bluegrass plants were in low vigor (NF-3). Cheatgrass is mostly sparse in the plant community with small areas of dominance such as rodent disturbed areas (NF-1). Crested wheatgrass plants show low vigor at NF-1.	<i>Native</i>					NF-2
	<i>Seedings</i>				NF-1, NF-3	
Hydrologic Function Rationale: The high percentage of bareground allows for increase in evaporation and runoff which reduces infiltration (NF-1,3).	<i>Native</i>					NF-2
	<i>Seedings</i>				NF-1, NF-3	

**1. Standard 1 – Watershed**

The native site (NF-2) was noted to be within none to slight deviation from expected. 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 were rare and widely spaced while gullies were not noted.

Both seeding sites (NF-1, 3) were noted to be slight to moderately deviated from the expected. Bareground was higher than expected in the seedings, as was soil erosion. This was evidenced by the wind scour and soil deposition area, and poor aggregation of the soil surface. This, in part, can be attributed to the fire and seeding. A soil compaction layer was also present at a shallower depth than expected which reduces infiltration capability of the soils.

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

No natural wetlands are known to be present in the Noh Field Allotment. Saylor Creek rarely contains water, only during high runoff events, and does not support riparian vegetation along its length. There are a few excavated ponds in the channel bottom that store water when available. Some reeds/cattails have established at one of the deeper ponds in the mid 1990's.

Otherwise, there are no riparian wetlands or streams in this allotment. Therefore, Standards 2 and 3 do not apply.

## **3. Standard 4 - Native Plant Communities**

All of the sites sampled were loamy 8-10 range sites. A total of three sites were evaluated, one native site and two sites in crested wheatgrass seedings.

Site NF-2 was classified as a native vegetation community. Bare ground was 5 percent, biological soil crust cover was 28 percent. Biological soil crusts were diverse, containing some early as well as late seral species. Wyoming big sagebrush canopy cover was 16.3 percent with an average shrub height of 29.1 inches. Perennial grass cover was 34 percent, the majority of which was Sandberg bluegrass (22.7 percent), however, some mid and late seral species were present: bottlebrush squirreltail (8 percent), Thurber needlegrass (2.7 percent), and bluebunch wheatgrass (0.7 percent). Perennial native forbs provided 3.7 percent cover [a majority of the interceptions (hits) were in the genus *Phlox*], with another 5.3 percent cover by native annual forbs. Exotic annuals were wide spread, providing 6 percent ground cover. Cheatgrass was the most common exotic annual.

## **4. Standard 5 - Seedings**

Two sites (NF-1 and NF-3), classified as seedings, were evaluated in the Noh Field Allotment. Sagebrush cover was 14 percent at NF-1 and 1 percent at NF-3. Sagebrush heights for sites NF-1 and NF-3 averaged 23 and 24 inches respectively. Native grasses were more abundant (11.3 percent) at site 1 compared to 9.3 percent of crested wheatgrass. NF-3 contained 22 percent crested wheatgrass and 16.7 percent native grasses. Sandberg bluegrass was the most abundant native grass, with Thurber needlegrass contributing 1 percent at each site. Exotic annuals contributed 7.3 percent and 2.7 percent of the cover at Sites 1 and 3. Exotic annuals were dominated by cheatgrass with some bur buttercup. Perennial native forbs were 2 percent and 3.3 percent, with the genus *Phlox* providing the bulk of the cover. Bare ground averaged 15 percent in the seedings, whereas biological soil crusts contributed 20.8 percent cover. The majority of

the biological crusts were early seral species as expected following burning and drill seeding.

Although four-wing saltbush was seeded in with some of the crested wheatgrass, no transects were located in areas where saltbush had been seeded. For the most part, the four-wing saltbush in this allotment was heavily hedged which altered the growth form, male:female plant ratio (primarily male plants present), and plant reproduction.

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

Not Applicable.

**6. Standard 7 – Water Quality**

For the most part, this Standard is not applicable - see Standard 2. However, Saylor Creek, from its head water to the Snake River, is on DEQ's 1996-98 303(d) list for water quality limitations of sediments with a severity rating of low. Though listed, this water course is currently under review (2004-06) by the State for delisting due to its intermittent nature and rare flows. For this reason, the BLM has never done any monitoring of this creek.

**7. Standard 8 - Threatened and Endangered Plants and Animals**

A number of species presently designated as Sensitive are present in the allotment. For the most part, the Noh Field Allotment has not been inventoried for sensitive species. Sensitive species occurrences are frequently noted from incidental observations. BLM has no information regarding whether pygmy rabbits are present or were historically present in this allotment. No bat inventory has been conducted in this allotment. Also, a number of wildlife species presently designated as "watch" are also present. Watch species are **not** presently designated as Sensitive species, but may be added to the sensitive list in future years. No plants presently classified as sensitive species are known to occur in this allotment. Only limited surveys for sensitive plants have been conducted in this allotment. It is unknown whether the standard is being met for special status plant species. There is not any information available to determine whether livestock grazing management is having a significant impact on sensitive plant species. All these species are shown in Table 6.

**Table 6 - Idaho BLM Sensitive and Watch Species in the Noh Field Allotment**

Common Name	Scientific Name	Status	Presence
Greater sage grouse	<i>Centrocercus urophasianus</i>	S	C
Prairie falcon	<i>Falco mexicanus</i>	S	C
Ferruginous hawk	<i>Buteo regalis</i>	S	C
Loggerhead shrike	<i>Lanius ludovicianus</i>	S	C
Brewer's sparrow	<i>Spizella breweri</i>	S	C
Sage sparrow	<i>Amphispiza belli</i>	S	C
Swainson's hawk	<i>Buteo swainsoni</i>	W	C
Sage thrasher	<i>Oreoscoptes montanus</i>	W	C
Long-billed curlew	<i>Numenius americanus</i>	W	C
Brewer's blackbird	<i>Euphagus cyanocephalus</i>	W	C
Short-eared owl	<i>Asio flammeus</i>	W	L
Western burrowing owl	<i>Speotyto cunicularia</i>	W	L
Slickspot peppergrass	<i>Lepidium papilliferum</i>	C	L
Status codes: C = FWS candidate species; S = designated Sensitive species; W = Watch category			
Presence codes: C = presence confirmed in allotment; L = presence likely in the allotment			

Greater sage grouse. This allotment has not been checked for sage grouse leks since an inventory effort in the early 1980's. BLM does not have any records indicating any sage grouse lek within the allotment, however, two recently active leks and two historic leks are present in adjoining allotments and are within 2 miles. Data for the recently surveyed leks indicate that populations in the area are in a downward trend. Shrub cover and height were adequate for sage grouse nesting in the native area and the seeding at NF-1. The forb component was diverse at the native site and contained several sage grouse preferred forbs in adequate numbers. The forb component in the seedings were less diverse and less abundant, however, plants in the *Phlox* genus were the most common native forbs. Sage grouse nesting potentially occurs in areas with adequate shrub cover (10-30%). Plant communities where Sandberg bluegrass, bottlebrush squirreltail, and Thurber needlegrass are grazed to 40% use level will not provide adequate residual vegetation for nesting sage grouse more than 0.5 miles from water. Grazing to 50% use on crested wheatgrass will reduce residual herbaceous nesting cover for sage grouse at more than 0.5 miles from water.

**Table 7 - Numbers of male sage grouse at leks near the Noh Field Allotment for which there is data.**

Lek #	# Males	Year of Recent Count	Highest # Males	Year of Count
2O-062	0	2002	13	1991
2O-141	12	2002	23	2000

Prairie falcon. Prairie falcons have been observed foraging in the allotment, however, no nest sites have been confirmed. A number of cliffs and rock outcrops are present primarily along portions of Saylor Creek, and provide suitable nesting sites for this species.

Ferruginous hawk. Ferruginous hawks have been observed flying over the allotment. No nest sites are known to be present, however, no inventory has been conducted in the allotment for this species. The observed ferruginous hawks may have been associated with nest F10 located just over 4 miles to the south. Cliff and rock outcrops along Saylor Creek may also provide nesting ledges for this species.

Loggerhead shrike. Loggerhead shrikes were noted perched along the fences in the area. There have been other scattered observations of this species in the general area.

Brewer's sparrow and sage sparrow. Both species are known to be present in Wyoming big sagebrush habitats in the allotment. They were observed in the early morning at all of the native sites surveyed.

Slickspot peppergrass. Slickspot peppergrass is not known to occur in this allotment, however, over 1600 acres of suitable habitat does occur. Threats to this species include degradation of slickspots and surrounding area habitat, trampling from livestock, and weed invasion.

### **C. Guidelines for Grazing Management**

The established grazing system provides rest during the critical growing season (April) every other year. Water troughs in the Allotment lacked functional wildlife escape ramps. Fences are not to BLM specifications for wire spacing to minimize impacts to wildlife movements (pronghorn and mule deer). Per the *Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management*, the following Guidelines need to be implemented to promote significant progress towards meeting the Standards:

Guideline 8 – Apply grazing management practices that maintain or promote the interaction of the hydrologic cycle, nutrient cycle, and energy flow that will support the appropriate types and amounts of soil organisms, plants, and animals appropriate to soil type, climate, and landform.

Guideline 9 – Apply grazing management practices to maintain adequate plant vigor for seed production, seed dispersal, and seedling survival of desired species relative to soil type, climate, and landform.

Guideline 13 – On areas seeded predominantly with non-native plants, use grazing management practices to maintain or promote the physical and biological conditions to achieve healthy rangelands.

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 the applicable Standards for Rangeland Health are not being met in the allotment for Standard 1 (Watershed), Standard 5 (Seedings), and Standard 8 (Special Status Species). The indicators for Standard 4 (Native Plant Communities) are being met. Livestock grazing management guidelines are not being met.

Based on the data presented here, there is additional forage vegetation to allocate to watershed, wildlife and livestock.

## **VI. Consultation**

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

## **VII. Recommendations**

Increase the current allocation of forage from 528 to 1,073 AUMs. This use has been based on monitoring and evaluation studies. The proposed permitted AUMs would result in an expected utilization of less than 40% at key areas. The remaining forage production should be allocated to watershed and wildlife.

Maintain up to 3,817 acres of existing vegetation improvements (crested wheatgrass seeding).

Monitor 100 acres of seeded areas reverting to sagebrush to ensure re-establishment of big game habitat and upland game bird nesting and cover habitat. Monitor seeded areas reverting to sagebrush to ensure re-establishment of big game habitat and upland game bird nesting and cover habitat. Under the forage allocation proposed, approximately 64 percent of the forage production would be allocated to watershed and wildlife, and would allow the native plant communities to recover, and over the long term provide habitat for wildlife.

Allow no more than 50% frequency of nipping on current year leaders on key woody species\*.

Manage for moderate utilization levels (up to 50 percent) at key areas. In areas where crested wheatgrass plants are becoming decadent or “woffy” allow higher utilization (up to 70 percent) on an occasional basis (once in 5 years) to condition plants and remove

standing dead material. This treatment will promote plant vigor, increase ground litter, overall palatability and maintain healthy stands of crested wheatgrass in accordance with the Jarbidge RMP. Increased palatability of seeded species will decrease grazing pressure on native species thus resulting in better plant vigor in the native herbaceous component. This level will be cumulative between livestock and wildlife. When 70 percent grazing use is authorized at key areas within a seeded pasture, use in the remaining seeded pastures would be at 50 percent or less and total grazing use would be limited to the permitted use in the allotment.

Ensure that all water troughs have correctly installed and properly functioning wildlife escape ramps and that water is in all troughs from May through October, even when livestock are not present in the allotment.

Salt blocks and other mineral supplements should be placed at least 1 quarter mile from Saylor Creek to protect cultural resources.

\*Note: 50% use on key woody species is not allocated to livestock. Use is expected to be low except for during the winter if snow covers herbaceous vegetation. No crucial winter range was identified in this allotment, however, wintering mule deer and antelope are present.