Allotment Assessment
71 Desert

I. Name and Number of Allotment

71 Desert Allotment #01099
Permittee: Simplot Livestock Co.

II. Livestock Use

1. Preference: 2,981 AUMs
2. Historic Use Range: 2,952 to 5,345 AUMs
3. Suspended Preference: 0 AUMs
4. Season of Use: 12/01 to 05/15
5. Kind and Class of Livestock: Cattle
6. Percent Public Land: 100%

III. Allotment Profile

1. The 71 Desert Allotment is located in the central west part of the Jarbidge Field Office Area. Approximately 41% is located in Multiple Use Area (MUA) 10, while 59% is located in MUA 11. There are four pastures in this allotment. The current permit was issued on March 1, 1997 authorizing Simplot Livestock Co. 2,981 AUMs. This permit is valid until February 28, 2007. Temporary nonrenewable (TNR) grazing use was authorized from 1990 to 1995 and from 1997 to 1999. The allotment TNR authorizations are included in Table 1. All of the Allotment which occurs in MUA 10 is within either the Bruneau River-Sheep Creek or Jarbidge River Wilderness Study Areas (WSA) (federal acreage: 14,178). BLM Handbook H-8550-1, Interim Management Policy for Lands Under Wilderness Review, describes the policies under which these lands will be managed until Congress either designates these lands as wilderness or releases them for other purposes. The western edge of the allotment lies within the Bruneau/Jarbidge River Area of Critical Environmental Concern (ACEC). This area was designated to protect Bighorn sheep habitat and important geologic, scenic, natural and cultural values. The allotment also contains important components of the Dry Lake Beds/Bruneau River Cultural Resource Complex.
2. Federal Acreage: 39,697
3. Jarbidge Resource Management Plan Objectives (1987):
   - Increase AUMs of forage issued for livestock in MUA-10 from 6,238 AUMs to 7,021 AUMs by the year 2005 (II-40) and in MUA 11 increase from 20,078 AUMs to 33,423 AUMs (II-44). This increase in use would result from the availability of additional forage from water developments, brush control, seeding projects and improvement in native range condition (II-3). The 71 Desert occupies 17% of MUA 10 and 11% of MUA 11.
   - Maintain 1,866 and 21,177 acres of existing vegetative improvements (II-40, II-44).

- Improve 56,576 and 139,244 acres of lands in poor (early seral) ecological condition (II-40, II-44); Seventy-one Desert had 29,757 acres in poor condition.
- In MUA 10, manage big game habitat to support 2,160 mule deer in the winter and 260 mule deer the rest of the year, 191 antelope, and 208 bighorns and protect existing and potential bighorn habitat through special designation and management. Existing populations are 1320 winter mule deer, 200 mule deer rest of year (II-40).
- In MUA 11, improve big game habitat to support 350 mule deer and 70 antelope in winter and 200 the rest of the year. Existing population are 300 mule deer and 50 antelope in winter, 100 the rest of the year. Improve 2,500 acres of big game habitat by 2005. (II-44).
- In MUA 10, improve sage grouse nesting through seeding and rehabilitation. Maintain current upland game nesting and cover habitat (II-40).
- In MUA 10, improve 4.7 miles of riparian habitat and 11.1 miles of fisheries habitat by 2005 (II-40).
- In MUA 11, improve 26.1 miles of riparian habitat and 21.6 miles of fisheries habitat by 2005 (II-44).
- In MUA 10 and 11, protect the cultural values of the Dry Lakes/Bruneau River Complex through special designation and management.

4. Key Forage Species:
   - Bluebunch wheatgrass
   - Crested wheatgrass
   - Bottlebrush squirreltail
   - Sandburg bluegrass
5. Grazing System: Grazing use in the allotment is managed in conjunction with other allotments in which the permittee holds grazing permits. The cattle are moved into the allotment in early December and stay there until April or early May. There is no formal grazing management plan; however the permittee avoids grazing a pasture in the spring during the critical growing season for two consecutive years.

IV. Management Evaluation

The purpose of this evaluation is to determine the status of the allotment 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	5,092
1991	3,479
1992	3,813
1993	4,201
1994	3,810
1995	4,163
1996	2,978
1997	3,866
1998	4,542
1999	4,627
2000	2,974
2001	3,215
2002	2,952

2. Climate

Long term water year precipitation (September through June) for Bruneau NOAA Weather Station is 6.86 inches, and for the closest BLM rain gauges at Big Draw and Three Creek Well, the past 10-11 year annual averages have been 11.7 and 10.2 inches, respectively. Although these BLM gauges may only represent the extreme high end of expected yearly moisture amounts in the allotment, the following Table 2 shows the trend of yearly moisture totals for the past 10 water years at these BLM stations, which is applicable for the moisture trend of the allotment, but at lesser totals. The allotment actually averages somewhere between 7 to 10 inches of moisture per year due to its environmental setting. Also shown is the Yield Index for the Bruneau 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	Big Draw (in inches)	Three Creek Well (in inches)	Yield Index At Bruneau
1993	14.9*	6.1^	1.08
1994	7.5	8.1	0.51
1995	16.9*	14.0*	1.58
1996	12.1*	10.8*	1.90
1997	16.7*	13.5*	1.40
1998	15.2*	13.6*	1.20
1999	8.6	10.7*	0.82
2000	7.6	5.9	0.61
2001	11.9*	7.2	0.53
2002	9.3	7.7	0.77
2003	7.9	9.3	N/A

^ Incomplete. 3rd and 4th quarter total only.
*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

Y e a r	Utilization Range	Utilization Average
2001	17% to 58%	42%
2002	10.5% to 63%	31%

4. Production

Appendix 1 displays the production data that has been collected in the 71 Desert Allotment. It shows that 14,039,480 pounds of forage vegetation is produced on a near normal production year. Forage vegetation refers to grasses and in seeded areas, alfalfa and sainfoin may be included. The production of forbs and shrubs is not included in this poundage. In consideration of precipitation data and its relationship to drought as well as the needs of the watershed and wildlife, it is estimated that 5,505 AUMs of forage vegetation is available for livestock. This allocation level depends on water being available throughout the allotment.

5. Condition and Trend

In June 1998, 10 long-term vegetation/soil cover monitoring study sites were established in the Seventy One Desert 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. All of the sites were scattered throughout the entire 17 mile long and four mile wide allotment in native shrub communities, burned areas and in established seedings. The 10 sites are situated in the following legal locations (site number), ecological sites, and elevations:

10S08E28; Artrw/Stth2, Loamy 8-10", burned native site @ 4,250 feet,
10S08E31; Artrw/Posa3, Loamy 7-10", native site @ 4,125 feet,
10S08E34; Artrw/Stth2, Loamy 8-10", now a seeding @ 4,280 feet,
11S07E26; Atco/Arsp5/Orhy, Calcareous loam 7-10", native site @ 4,350 feet,
11S08E07; Artrw/Posa3, Loamy 7-10", native site @ 4,220 feet,
11S08E07A; Artrw/Posa3, Loamy 7-10", now a seeding @ 4,170 feet,
12S07E26; Artrw/Posa3, Loamy 7-10", native site @ 4,680 feet,
12S08E07; Artrw/Stth2, Loamy 8-10", now a seeding @ 4,480 feet,
13S08E06; Artrw/Stth2, Loamy 8-10", native site @ 4,720 feet, and
13S08E06A; Artrw/Stth2, Loamy 8-10", now a seeding @ 4,760 feet.

Since the baseline trend data was collected in 1998, none of the 10 study sites have been revisited, therefore trend analysis of these studies can not be evaluated and is currently unknown. Trend is determined by comparing the frequency of key species and cover from the first year read to subsequent years. Ecological condition status is identified in Table 4a and 4b based on the 1981-82 vegetation inventories and 2002-03 production studies.

Table 4a - Condition and Trend Evaluation of Native Vegetation Study Sites

1981-83 Inventory Site	Inventory Site Location	Trend Site	Vegetation Type	1981-83 Ecological Rating*	2002-03 Production Studies Name/Rating
RA-5	10S08E19	10S08E28	Artrw/Stth2	Early	
TH-16	12S07E02	10S08E31	Artrw/Stth2	Mid	71D-1/Late 71D-2/Mid
TH-1	11S07E25	11S07E26	Atco/Orhy	Late	71D-4/Mid
TH-16	12S07E02	11S08E07	ArtrwStth2	Mid	71D-1/Late 71D-2/Mid 71D-7/Mid
TH-8(burn)	11S08E19		Annual(burn)	Early	
LH-19 LH-27	12S07E27 13S07E13	12S07E26	Artrw/Stth2	Early Early	
LH-18(seed) LH-27	13S08E06 13S07E13	13S08E06	Artrw/Stth2	PNC Early	

Table 4b – Condition and Trend Evaluation of Seeding Vegetation Study Sites

1981-83 Inventory Site	Inventory Site Location	Trend Site	Vegetation Type	1981-83 Condition Rating*	Current Condition
RA-18(seeding)	10S07E35		Artrw/Agcr	Good	
RA-5	10S08E19	10S08E34	Agcr seeding	Poor	Good
TH-16**	12S07E02	11S08E07A	Agcr Seeding	Poor	Good
TH-7 TH-2**	12S08E06 11S08E25	12S08E07	Agcr Seeding	Poor Poor	Excellent
LH-18(seeding)	13S08E06	13S08E06A	Agcr Seeding	Excellent	Good

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 seeded to *Agropyron cristatum* and/or *Agropyron intermedium.*

******Site was seeded with crested wheatgrass (Agcr) after burn. Was originally an Wyoming big sagebrush Thurbers needlegrass (Artrw/Stth2) site.

Trend and condition files are retained at the Jarbidge Field Office. They can be reviewed upon request.

While trend sites have not been read twice, production studies have been done. These studies provide information on composition which can be used to determine ecological condition. Four sites within the native vegetation communities were measured for condition based on the Similarity Index presented in the Inventory and Monitoring Technical Reference 1734-7. Three sites (71D-2, 4 and 7) are in mid-seral ecological condition and one site (71D-1) is in late seral ecological condition. The Jarbidge RMP EIS presented all of this allotment in poor (early seral) condition. This new data would indicate an improvement in condition since the implementation of the RMP which could be a trend toward meeting RMP objectives.

The four seeding study sites, as indicated in Table 4b above, range from poor to good in the 1981-82 inventories are in satisfactory and good condition based on the initial trend monitoring data. Condition ratings of seedings are based on shrub re-invasion densities (low to high) and seeded grass species frequencies (low to high). For the most part, and as indicated by the monitoring data, these seedings in the 71 Desert Allotment are meeting the RMP objective for sustaining existing vegetative improvements.

B. Rangeland Health Assessment

In 2002, rangeland health data was gathered on the allotment at three ecological sites within native range, and four ranges site with seedings. Rangeland health data was collected per Technical Reference 1734-6, *Interpreting Indicators of Rangeland Health*. The rangeland health data is 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.

Nine transects were read at various ecological sites and are identified as 71D-1 to 71D-9. The “Preponderance of Evidence” based on the nine 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 4 - 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: Rills and long flow patterns present from recent high intensity storm (71D-7). Some long flow patterns (71D-3). Deposition from water flows apparent (71D-7). Bareground is higher than expected for the site which is less than 10 percent (71D-8[31%], 7[16%], 6[12%], 4[19%], 3[16%]). Wind scouring and deposits evident, but they occurred after the fire (71D-8). Hoof prints 1 to 3 inches deep (71D-3, 8, 9). Some soil loss but not current, likely after wildfire (71D-4, 8). Some weak soil surface resistance to moisture as pedon dissolved with agitation in water (71D-2, 9).	*Native*				71D-2, 71D-4, 71D-7, 71D-8, 71D-9	71D-1, 71D-5
	Seedings				71D-3	71D-6
Biotic Integrity Rationale: There is a somewhat low composition of perennial forbs, annual forbs and perennial native grasses PNG (71D-1, 2, 3, 4, 5, 6, 7, 8, 9). There is a 4-6 inch compaction layer with horizontal roots indicating a barrier to roots (71D-4, 7, 8). Some compaction with roots penetrating it (71D-1, 2, 5, 6). Legumes (nitrogen fixers) are low in composition. (71D-3, 4, 6, 7, 8). Cheatgrass is common and forms a mat inhibiting perennial grasses from establishing (71D-8). Big sagebrush plants show heavy use resulting in few seed stalks. (71D-9). Big sagebrush has greater decadency than expected (71D-1, 2, 7). An estimated 25% of the fourwing saltbush is decadent from over use (71-D). Hedging apparent on shrubs affecting their ability to produce seed (71D-1, 2, 4, 7) and on shadscale (71D-4). The production is 25 to 50 % of capability at 71D-8, 9; 25 to 50% at 71D-1, 2, 7; and 50 to 75% at 71D-4, 5. Big sagebrush has low vigor (71D-2). Invasive plants like Russian thistle, cheatgrass and halogeton are common and locally dominate (71D-5, 9). Invasive plants sparse and or locally abundant in small disturbed areas (71D-1, 2, 3, 4).	*Native*			71D-9	71D-1, 71D-2, 71D-4, 71D-5, 71D-7, 71D-8,	
	Seedings				71D-3	71D-6
Hydrologic Function Rationale: No shrubs to catch snow and shade ground. Herbaceous cover mostly under sagebrush plants and few in interspaces (71D-1, 9). Litter amount low (71D-1, 2, 3). Covered in above rationale.	*Native*				71D-2, 71D-4, 71D-7, 71D-8, 71D-9	71D-1, 71D-5
	Seedings				71D-3	71D-6

1. Standard 1 – Watershed

Rills and long flow patterns are present from recent high intensity storm. Deposition from water flows apparent at one site. Bareground is higher than expected for the range site which is less than 10 percent in five of the nine sites. Wind scouring and deposits are evident in some of the burned areas. There is some soil loss on some sites, but it is not recent. The soil surface resistance to erosion is good at 7 of the 9 sites.

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

The following principal stream reach (Table 5) is present in the 71 Desert Allotment.

Table 5 - Stream Reach Functionality Rating

Stream (year inventoried/ monitored)	Inventory Reach #	Miles	Dominant Vegetation	Functionality Rating	Comments
Clover Creek 1999 , 2003	12.3 – 15.7	3.4	Poa/ Rush/ Willow	FAR	sole water source for northern-most pasture

Clover Creek segment 12.3 to 15.7 runs between the 71 Desert and Winter Camp (#01064) Allotments. Livestock use in this part of Clover Creek is primarily from the 71 Desert side, and provides the sole source of water in the northern-most pasture of this allotment. There had not been grazing use in this segment for a couple of years when it was assessed for functioning condition.

This part of Clover Creek is down-cut and entrenched, sinuosity is poor, and the creek is shallow and wide. Fines cover most of the gravel/cobble substrate; cobble embeddedness is high. The density of riparian hydric species is low. The main herbaceous species covering the stream banks are Kentucky blue grass, rush, and red top. Cheatgrass is also widespread along the stream banks and all along the slopes leading into the creek. Rabbitbrush is present along the stream banks. Because the stream banks are not well-vegetated by desirable riparian species, many of them have been susceptible to damage from livestock use. Some banks are bare and raw and have sloughed into the creek. Some young willows are present to help anchor the stream banks.

During the last few years, Clover Creek in this area of the 71 Desert has dried up in July and usually begins to flow again in mid to late September. The cessation of flows is due to center pivot irrigation use in the Three Creek area.

There are no less than seven playas throughout the length of the allotment, plus a small portion of the Inside Lakes playa. These playas do not support any riparian vegetation, however, they typically hold water in the spring and are important to wildlife species.

3. Standard 4 Native Plant Communities.
In 2003, data were collected in 3 range sites, Loamy 7-10" (71D-1, 2, 8 and 9), Calcareous loam 7-10" (71D-4), and Loamy 8-10" (71D-7). The 71D-8 site was in an area that burned in the 1980's. None of the evaluation sites were located within the ACEC and one site was located in the WSA.

At Site 71D-8, the burned site, exotic annuals dominated the vegetation with cheatgrass and Russian thistle the most abundant species. No sagebrush or other shrubs were intercepted (hit), however, rabbitbrush is present in low amounts. The most abundant native grass is Sandbergs bluegrass (10 percent cover), with bottlebrush squirreltail (2 percent cover) and basin wild rye (1 percent cover) also present. Bare ground is 15 percent cover, with no biological soil crusts present. A compaction layer is present to a depth of about 4 inches. Russian knapweed was observed near 71D-8. Late seral grasses (Thurber needlegrass) and native forbs were generally lacking. The dense cheatgrass litter likely impairs the establishment of native plants.

The remaining unburned Loamy 7-10" range sites had 15 percent to 44 percent sagebrush cover, with the average shrub heights averaging 17.1, 16.9 and 20.3 inches for sites 71D-1, 2, and 9, respectively. The site with the lowest sagebrush cover also has some spiny hopsage present. The most abundant grass is Sandberg bluegrass with 11, 14, and 14 percent cover respectively. Bottlebrush squirreltail provides 14, 16, and 2 percent cover respectively for sites 1, 2, and 9. Perennial native forbs were not hit and generally rare to absent. Bare ground varied from 4 percent (71D-1), 10 percent (71D-2), to 31 percent (71D-9). Biological soil crusts tallied 23 percent at sites 2 and 9, and 30 percent at site 1. Exotic annuals, primarily cheatgrass, were present at all the sites contributing from 1 to 4 percent cover. Late seral grasses and native forbs were lacking. Russian knapweed is present near 71D-1.

Calcareous loam 7-10" contained more shadscale, spiny hopsage, winter fat, and spiny horsebrush along with Wyoming big sagebrush in the plant community. Sagebrush cover is 6 percent but other shrubs contributed another 18 percent cover. Sagebrush height averaged 14.5 inches. The most abundant grass is Sandberg bluegrass (27 percent cover) with 3 percent cover on bottlebrush squirreltail. Average grass height is 4.2 inches. Mid and late seral grasses (bottlebrush squirreltail, Thurber needlegrass) were either absent or present in low amounts. When squirreltail is documented, it typically occurred underneath the shrub canopy. Native forbs, both annual and perennial, were generally rare and no percent cover on native forbs were recorded on the transects. Nitrogen fixing forbs and legumes were rare. At a number of sites a soils compaction layer is present about 6 inches deep. Bare ground is 19 percent cover, whereas biological soil crusts were 13 percent cover. The majority of biological crusts were early seral species. Exotic annuals (Russian thistle, halogeton, bur buttercup and cheatgrass) were present (4 percent cover). Winterfat and spiny horsebrush in the allotment exhibited severe hedging that is impairing plant health and seed production. Another concern is the condition of the sagebrush (hedging) in mule deer winter range. Winter livestock grazing on winter range conflicts with wintering mule deer. Russian knapweed, a noxious weed, was noted at two locations.

The Loamy 8-10” range site had 14 percent canopy cover for Wyoming sagebrush, spiny hopsage contributed another 3 percent cover. The average sagebrush height is 23.9 inches. Sandberg bluegrass had 16 percent cover, and squirreltail is 1 percent cover. The average grass height is 4.8 inches. Bare ground is 17 percent cover, whereas biological soil crusts are 34 percent cover. The majority of the biological soil crusts were early seral species. Cheatgrass is present and had 3 percent cover.

At a reference area for the Loamy 8-10” range site Wyoming big sagebrush canopy is 21 percent cover, Thurber needlegrass averaged 8.3 percent cover, squirreltail averaged 7.3 percent cover, and Sandberg bluegrass averaged 26.7 percent cover. Perennial native forbs provided 10.7 percent cover, annual native forbs averaged 3.3 percent cover, bare ground averaged 3 percent cover, and biological soil crusts averaged 41.7 percent cover.

Mule deer winter range is present along the Bruneau River Canyon in the uplands as well as the canyon. Antelope are present in the allotment year round. Native range serves as fawning habitat for both mule deer and antelope. There are no data regarding the mule deer or antelope populations specific to this allotment. Antelope herd data for hunting unit 46 is generally down.

4. Standard 5 Seedings.

Data were collected at three areas that were seeded to crested wheatgrass following wild fire (71D-3, 5, and 6). The four-wing saltbush (71D-3), seeded as part of a fire rehabilitation to augment the wildlife habitat that burned, shows hedging and 25% mortality on older plants due to browsing by cattle (Site 3). Livestock use has resulted in a shift in the ratio of male:female plants, with the vast majority of the plants being male. Exotic annual grasses (cheatgrass) and forbs (bur buttercup, Russian thistle, and tumble mustard) are generally wide spread and are locally abundant within the seedings. Bottlebrush squirreltail, Thurber needlegrass, and other tall native grasses are generally lacking from the seedings.

5. Standard 7 - Water Quality

The only permanent surface water associated with this allotment is the East Fork of the Bruneau River (also known as Clover Creek), which basically forms a four mile boundary along the northern perimeter of the allotment. Historically, cattle have had access to this water source along this stretch for the majority their drinking needs in the allotment, as well as from several other adjacent allotments. Although this source is still used for this purpose today, its demand has become less in the past several years with the development of upland watering systems of pipelines and troughs. The implementation of these systems has lured away some of the direct watering demands and impacts of cattle use at the creek source, which in return should have improved the water quality. However, total removal of livestock use has not been fully recognized yet, but it has become more controlled and confined with the installation of water gap fencing. Cattle can only drink from the creek at designated water gaps and do not have complete access to the entire river bottom along this segment anymore. This too has greatly reduced livestock impacts along the river banks and to the water quality of the river. Possible

future attempts of totally excluding livestock use at public land access points to the river are long-term plans of the BLM for the enhancement and protection of "sensitive" redband trout habitat.

As for the water quality of the East Fork of the Bruneau River, the BLM has been monitoring several water quality attributes since 1992 at several locations in the upper reaches of this river, above Clover Crossing. In brief summary, the main attribute not meeting State Standards for a cold water biota is temperature. Daily average or maximum temperature standards (not to exceed 19° C or 22° C, respectively) have been routinely exceeded for the past several years mainly during the months of July and August. However, it is realized that these high temperatures are likely attributed to the narrow, black lava rock canyon setting and the very low flows of the river during the summer months, which can be traced to irrigation use in the head waters of the creek. Also, on occasions, the dissolved oxygen and fecal coliform standards have been observed to exceed State Standards. The BLM has not monitored for sediments or any biological parameters.

Regulated by the State's Department of Environmental Quality (DEQ), the East Fork of the Bruneau River, from it headwaters to the Bruneau River, has been identified and nominated for the State's 1996 303(d) list for not meeting water quality standards for **sediments** and **temperatures,** and the 1998 list for **bacteria**, however the severity of these pollutants were rated low. Currently, the East Fork of the Bruneau River is included in DEQ's Lower Bruneau River SBA - Total Maximum Daily Load (TMDL) plan which was approved by the EPA in 2000. This plan is currently in the implementation phase and includes the review of the beneficial uses of the E. F. of the Bruneau River. When the plan becomes final, recommendations for best management practices will be applied to this river (in cooperation with the BLM and private land owners) that will improve and enhance current "water quality limited" issues.

Other probable surface waters within the allotment include several natural playas. Although these playas are ephemeral in nature, they do on occasions impound and retain water for livestock use during high rain fall events or after spring snow melt. The BLM does not monitor these waters nor does the DEQ have any concerns with them either mainly because of their nature. No water is ever release by these playas. It either sinks or evaporates, if not first used by livestock or wildlife.

As previously mentioned, much of the water use for livestock and wildlife comes from a pipeline and troughs water distribution system in the central and southern pastures in the allotment. The source for this main pipeline system comes from ground water (AEC well) on public land. The quality of this water was not monitored by the BLM, but is presumed to be of good quality for livestock and wildlife consumption since it comes directly from a protected and enclosed ground water source.

6. 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 from incidental observations. 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. Two plants presently classified as sensitive species are known to be in the allotment. Only limited surveys for sensitive plants have been conducted in this allotment and more species may occur. It is unknown whether the standard is being met for special status plant species. There is no information available to determine whether livestock grazing management is having a significant impact on sensitive plant species or not. All these species are shown in Table 6.

Table 6 - Idaho BLM Sensitive and Watch species in the 71 Desert Allotment

Common Name	Scientific Name	Status	Presence
Greater sage grouse	*Centrocercus urophasianus*	S	C
Prairie falcon	*Falco mexicanus*	S	C
Ferruginous hawk	*Buteo regalis*	S	C
Loggerhead shrike	*Lanius ludovicianus*	S	C
Brewer's sparrow	*Spizella breweri*	S	C
Sage sparrow	*Amphispiza belli*	S	C
California bighorn sheep	*Ovis Canadensis californiana*	S	C
Spotted bat	*Euderma maculatum*	S	C
Redband trout	*Oncorhynchus mykiss gairdneri*	S	C
Townsend big-eared bat	*Corynorhinus townsendii*	S	L
Peregrine falcon	*Falco peregrinus anatum*	S	L
Bull trout	*Salvelinus confluentus*	T	L
Swainson's hawk	*Buteo swainsoni*	W	C
Sage thrasher	*Oreoscoptes montanus*	W	C
Brewer's blackbird	*Euphagus cyanocephalus*	W	C
Grasshopper sparrow	*Ammodramus savannarum*	W	L
Western burrowing owl	*Speotyto cunciularia*	W	L
Western small-footed myotis	*Myotis ciliolabrum*	W	L
Yuma myotis	*Myotis yumanensis*	W	L
Simpson hedgehog cactus	*Pediocactus simpsonii*	S	C
Davis peppergrass	*Lepidium davisii*	S	C
Status codes: T= listed Threatened, S = designated Sensitive species; W = Watch category Presence codes: C = presence confirmed in allotment; L = presence likely in the allotment			

Greater Sage grouse. A single sage grouse lek (2O-096) has been documented in the 71 Desert Allotment. This lek had 15 males when found in 1982. No counts have been done since that time. Eight leks in four surrounding allotments are also present and sage grouse at any of these leks may nest in sagebrush habitat within the 71 Desert Allotment.

BLM has no current sage grouse lek inventory for the 71 Desert Allotment. Based upon the last count, 5 of the leks in the surrounding allotments are no longer active (2O-002, 2O-067, 2O-068, 2O-147, 2O-156) and numbers of males are down over 50% at two leks (2O-095, 2O-148). The remaining lek (2O-121) has not been counted since it was found in 1982. Sage grouse droppings were located at 3 of the native sites sampled. Two sage grouse were flushed from the old burn where they had likely been feeding on prickly lettuce or western salisfy. Wild fires since 1986 in the 71-Desert Allotment burned sagebrush off a large portion of the eastern area. Not all of the burned area was seeded. The habitat component at most sites lacked diversity and abundance of desirable forbs used by sage grouse. The general lack of tall native grasses somewhat limits nesting cover. In those sagebrush areas where the dominant grass is presently Sandberg bluegrass, Thurber needlegrass, or Idaho fescue, utilization to 40% will **not** provide adequate residual vegetation for sage grouse nesting within 0.5 miles from water or beyond. In order to meet the 7 inch minimum stubble height recommended by Connelly et al. (2001) use in areas with these grass species use should be less than 20%.

Prairie falcon. Prairie falcons have been observed over the 71 Desert Allotment. Suitable nesting habitat is provided by the cliffs along the Bruneau and Jarbidge River Canyons.

Ferruginous hawk. A single ferruginous hawk nest is known to be present within the 71 Desert Allotment. Because the allotment has not been inventoried, other ferruginous hawks nests may be present.

Loggerhead shrike. Loggerhead shrikes had been observed in areas with taller sagebrush in the 71 Desert Allotment. The location where this species had been observed burned in a wildfire.

Brewer's sparrow and Sage sparrow. Both species are present in the allotment where big sagebrush is present in larger patches. The amount of nesting habitat for these species has declined due to wild fires.

California bighorn sheep. California bighorn sheep data for this allotment are limited. There are nearly 12,000 acres of designated ACEC in the allotment. The majority of the observations have been collected following lambing by Idaho Department of Fish and Game. Most of the California bighorn sheep observations to date have been within the canyon, however, bighorn use in upland areas has occurred over 1 mile from the canyon rim. Habitat quality (grasses and forbs) particularly within 0.5 miles of playas (an upland water source for bighorn) is low. One water trough is located within the 1 mile buffer for the ACEC. A portion of the pipeline was constructed in the early 1980's (E.A. written in 1982) and constructed to a storage tank in 1984. The remainder of the existing pipeline was constructed sometime after 1989, and no water troughs should have been placed within 1 mile of bighorn habitat. Bighorn sheep numbers are less than 40% of the projected for the RMP. Livestock graze during the winter in or adjacent to bighorn winter range in the Blackrock Pocket, Diamond A, Bruneau Canyon, Poison Butte,

Seventy One Desert, Winter Camp, Flat Top and Bruneau Hill Allotments, or essentially all the bighorn sheep winter habitat along the Bruneau/Jarbidge Canyons.

Spotted bat. Spotted bats were confirmed in the Bruneau River Canyon in the vicinity of Indian Hot Spring. Spotted bats forage well beyond the canyon rim in the 71 Desert Allotment.

Redband Trout. Idaho Department of Environmental Quality has documented redband trout in Clover Creek at several locations. Redband trout are present in Clover Creek when water flows and temperatures are suitable (October into June). In the past several years that portion of Clover Creek that runs through the 71 Desert Allotment has been dried up by water diversions further upstream.

Bull trout. The Jarbidge River population of bull trout was listed as a Threatened species in 1999 by the U.S. Fish & Wildlife Service. There are some historic records of bull trout in the Bruneau River. It is likely that fluvial bull trout continue to move downstream into the Bruneau River that adjoins the 71 Desert Allotment in fall following spawning through spring when water temperatures are below 14°C. The topography of the Bruneau and Jarbidge Canyons generally prohibits livestock access to the Jarbidge or Bruneau Rivers. A gate and fence keeps livestock from traveling down the jeep trail to Indian Hot Springs in the Bruneau River Canyon.

Simpson hedgehog cactus. Seven known populations of Simpson hedgehog cactus have been identified as occurring in this allotment. Threats to this species is primarily collection of plants, but incidental trampling by livestock may occur.

Davis peppergrass. One known population of Davis peppergrass has been identified in this allotment. Threats include direct disturbance and habitat alteration. This includes livestock use, stockpond development in playas, OHV use, and increased erosion into playas. Livestock water and salt should not be placed within 0.5-0.25 miles of known populations in order to limit disturbance.

Slickspot peppergrass. Slickspot peppergrass is not known to occur in this allotment, however, almost 10,000 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

There is no formal grazing management guidelines implemented for the allotment. The permittee is providing adequate growing season rest for pastures. Not all water troughs have functional escape ramps for wildlife. The fence wire spacing is not to BLM specifications for mule deer, antelope, and bighorn sheep. The top wire is generally too high. A compaction layer is present. Also, negative impacts to winterfat and fourwing saltbush are occurring.

Per the *Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management*, the following Guidelines need to be implemented to promote significant progress toward the Standards:

> Guideline 3 – Use grazing management practices to maintain or promote soil conditions that support water infiltration, plant vigor, and permeability rates and minimize soil compaction appropriate to site potential.
>
> Guideline 5 – Maintain or promote grazing management practices that provide sufficient residual vegetation to improve, restore, or maintain healthy riparian-wetland functions and sruc6uire for energy dissipation, sediment capture, round water recharge, streambank stability, and wildlife habitat appropriate to site potential.
>
> Guideline 6 – The development of springs, seeps, or other projects affecting water and associated resources shall be designed to protect the ecological functions, wildlife habitat, and significant cultural and historical/archaeological/paleontological values associated with the water source.
>
> 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 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

All indicators for the applicable Standards for Rangeland Health are not being met in the allotment for Standard 1 (Watershed), Standard 2 (Riparian/Wetlands), Standard 3 (Stream Channel/Floodplain), Standard 4 (Native Plant Communities), Standard 5 (Seedings), Standard 7 (Water Quality) and Standard 8 (Special Status Species).

Changes in grazing on WSA lands may be allowed in number, kind, or season of use if, following preparation of an EA, the effects are found to be negligible. Changes cannot cause declining conditions or trend of the vegetation or soil, and cannot cause unnecessary or undue degradation of the lands.

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
Cedar Creek Cattle Co.-Chuck Jones

VII. Recommendations

Increase the current permitted grazing use allocation level from 2,981 to 3,652 AUMs. Production studies show that there may be additional vegetation production for allocation to livestock. Any increases in allocation levels need to be consistent with the Wilderness EIS and the Interim Management Plan (IMP) as they are not grandfathered in the WSA. In order to comply with the IMP for the WSA, additional utilization and trend monitoring is necessary. Prior to implementing additional use in the allotment the trend studies must be read at least two different years far enough apart to establish static or upward trend and utilization measurements must be taken with in the WSA to provide a base data to determine changes in use after the increase.

Maintain up to 2,646 acres of existing vegetative improvements. Seeded acres above 2,464 would be managed to allow for invasion of big sagebrush and preferred perennial native grasses and forbs.

Conduct Ecological Site Inventory of those acres previously determined to be in poor condition to quantify current status. Seed or plant native shrubs, grasses and forbs into poor condition range sites and rest as necessary to ensure establishment. This would result in improvement of poor condition range.

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. Set up a key area in order to include winterfat as a key species and ensure it is maintained or increased in the native plant communities. Areas seeded to fourwing saltbush should have this species included as a key species to ensure it is maintained in the seeding.

Manage for moderate utilization levels (up to 50 percent) in pastures predominately seeded to crested wheatgrass. In the Lookout Pasture in areas where crested wheatgrass plants are becoming decadent or “wolfy” 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; in the native pastures at 40 percent or less; and total grazing use would be limited to the permitted use in the allotment.

Implement grazing management that provides for pastures that are not grazed in the winter within crucial wildlife winter range.

Rotate season of use on the south three pastures to reduce impacts to winterfat and Fourwing saltbush.

Monitor seeded areas reverting to sagebrush to ensure re-establishment of big game habitat and upland game bird nesting and cover habitat. Allow no more than 50% frequency of browsing on current year leaders on key woody species*.

Extend AEC pipeline to the north into the Lookout Pasture to provide water in seeding in the north end of the Sheephead Draw Pasture and the Lookout Pasture. Ensure troughs are not placed within 0.25 miles of native plant communities. Once water is available in the upland portions of the Lookout Pasture, install fence to exclude livestock from the Clover Creek riparian zone.

Move the trough (2nd trough on north spur) out of the ACEC 1 mile buffer for bighorn sheep

Conduct cultural resource monitoring on components of the Dry Lakes Complex to ensure that site conditions do not deteriorate due to livestock grazing. Do not place salt blocks within 0.25 miles of dry lake beds, the Bruneau River Canyon, and the East Fork Bruneau River Canyon.

Evaluate the area burned in the 1986 fire and not seeded to crested wheatgrass for restoration back to native species. Plant fourwing saltbush, winterfat, and sagebrush in designated winter range for mule deer and antelope, as well as habitat for bighorn sheep.

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

Ensure all fences conform to BLM standards for wire spacing to minimize impacts to wildlife. Allotment boundary fence should have no more than 4 strands. The top wire should not exceed 40 inches for 4 strand fence and a bottom height of 18 inches. Pasture fences should be 3 strands of wire with a top height of 38 inches and a bottom height of 18 inches. The bottom wire of all fences should be barbless in antelope habitat.

Ensure that BLM's management policy for lands under wilderness review be conformed to and to continue resource uses on these lands in a manner that maintains the area's suitability for preservation as wilderness.

> *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. Winter range for mule deer is identified in this allotment.

Appendix 1 **Stocking Rate Based Climate and Production**

Allotment: **71 Desert Allotment # 1099** **Date:** **4/28/2004**

Station	Avg. PPT (Inches)	75% of Avg. (Inches)	# of Years ≥75% of Avg.	# of Years of Data	% of Years ≥75% of Avg.
Hollister	9.62	7.22	38	52	73%

Production Total Pounds	Average Hollister and Big Draw Yield Index Adjustment 0.81	Decision Weighted Use Factor	% of Years ≥75% of Avg. PPT	% of Veg. Prodt'n Available	AUMs Available for Livestock
8,102,381	10,002,940	43%	73%	31%	3,922
	Water Availability Adjustment* and WSA Adjustment**				3,652

2002 Data Pasture	Vegetation	Acres	lbs/ Acre	lb.of Forage	Utilization Factor	Weighted Forage	Suitability Factor	Forage Available*
Lookout #4	Crested	2,007	608	1,220,256	50%	610,128	100%	1,220,256
	Crested	3,443	608	2,093,344	50%	1,046,672	50%	1,046,672
	Wy sage/Thurbers	69	214	14,766	50%	7,383	100%	14,766
	Annual	255	0	0	50%	0	50%	0
Subtotal		5,774						
Sheephead Draw #3	Crested	1,522	775	1,179,550	40%	471,820	100%	1,179,550
	Crested	356	775	275,900	40%	110,360	50%	137,950
	Wy sage/Thurbers	971	214	207,794	40%	83,118	100%	207,794
	Wy sage/Thurbers	500	214	107,000	40%	42,800	50%	53,500
	Wy sage/Thurbers-**WSA**	1,965	214	420,510	40%	168,204	100%	420,510
	Wy sage/Thurbers-**WSA**	1,705	214	364,870	40%	145,948	50%	182,435
	Annual	191	0	0	40%	0	100%	0
Subtotal		7,210						
Stiff Tree Draw #2	Crested	3,259	775	2,525,725	40%	1,010,290	100%	2,525,725
	Wy sage/bluebunch	35	112	3,920	40%	1,568	100%	3,920
	Wy sage/Thurbers	2,437	90	219,330	40%	87,732	100%	219,330
	Wy sage/Thurbers-**WSA**	3,559	90	320,310	40%	128,124	100%	320,310
	Annual	2,851	0	0	40%	0	100%	0
	Annual - **WSA**	578	0	0	40%	0	100%	0
Subtotal		12,719						
Indian Hot Springs #1	Crested	144	775	111,600	40%	44,640	100%	111,600
	Crested	101	775	78,275	40%	31,310	0%	0
	Wy sage/Thurbers	1,868	129	240,972	40%	96,389	100%	240,972
	Wy sage/Thurbers	3,267	129	421,443	40%	168,577	0%	0
	Wy sage/Thurbers-**WSA**	1,527	129	196,983	40%	78,793	100%	196,983
	Wy sage/Thurbers-**WSA**	4,826	129	622,554	40%	249,022	0%	0
	Ricegrass/needlegrass	44	457	20,108	40%	8,043	100%	20,108
	Fourwing/crested	1,319	551	726,769	40%	290,708	0%	0
	Annual	896	0	0	40%	0	100%	0
	Annual	2	0	0	40%	0	100%	0
Subtotal		13,994						
	Total Acres	39,697		11,371,979		4,881,628		8,102,381

Adjustment Pending IMP Required Monitoring**	
WSA Pasture Acres	33,923
Current Permit	2,981
Current Stocking Level (Ac/AUM)	13.32
AUMs Allowed in WSA Pastures	2,547
Proposed AUMs in Non-WSA Pasture(s)	1,105
Adjusted Proposed AUMs	3,652

Weighted Use Factor	43%

* The "Available Forage Adjustment" accounts for the limited water availability in the Indian Hot Spring and Lookout Pastures.

** The AUMs in the WSA cannot be adjusted in pastures containing WSA acreage until requirements in the Interim Management Plan for WSA's are met.