

LeCLEKC CREEK GRAZING ALLOTMENT

MANAGEMENT PLAN

U.S.D.A. FOREST SERVICE  
COLVILLE NATIONAL FOREST  
SULLIVAN LAKE RANGER DISTRICT

LECLERC CREEK ALLOTMENT  
MANAGEMENT PLAN

Sullivan Lake Ranger District

Colville National Forest

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8/31/82  
Date

Accepted By: Jere and Ann Dennis  
Jere and Ann Dennis, Permittee

8-31-82  
Date

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8/25/82  
Date

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8-31-82  
Date

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10-1-82  
Date

## I. INTRODUCTION

The LeClerc Creek allotment is located near the south boundary of the Sullivan Lake Ranger District. The allotment takes in the north half of Dry Canyon along with quite a bit of the land between Molybdenite Mt. and Bunchgrass Meadows south to the junction of the West Branch LeClerc Creek and East Branch LeClerc Creek roads. There are approximately 14,850 acres of National Forest land and 7940 acres of private and state land. The allotment is not fenced into units or pastures at the present time. There are, however, a few drift fences on the allotment.

Commercial stands of timber, containing every commercial species found on the District, can be found throughout the allotment. The important livestock forage species include Kentucky Bluegrass, (Poa pratensis), redtop (Agrostis alba), orchardgrass (Dactylis glomerata) and timothy meadows along the Middle Branch of LeClerc Creek, 4th of July Creek, Redman Creek, Mineral Creek, and Whiteman Creek. Small openings created by logging in the early 1900s did not become restocked with trees and presently provide good forage areas for cattle.

The current permittees are Jere and Ann Dennis, and Dave Goodwin. Permitted numbers for the grazing season of June 1 through September 30 are as follows:

Jere and Ann Dennis	114* head
Dave Goodwin	77 head

\*Includes 44 head permitted under private land permit based on land within the allotment leased from Burlington Northern and Washington State DNR.

In general, the range is in fair condition. Some areas (e.g. the meadows along 4th of July Creek) are in good condition. The range is estimated to be in a static to downward trend.

## II. OBJECTIVES AND GOALS

The district's overall goals and objectives for the range program are stated in the Sullivan Lake District Multiple Use Plan. The following are management directions taken from the District Plan:

- "Obtain the greatest possible sustained production and use of high quality timber or forage crops on areas where these resources yield the greatest benefits, consistent with the limits imposed to protect soil and water".
- "Modify timber or forage production and harvest practices on areas where the natural scene is considered important. Choose modification measures which sustain or enhance resource production".

The following list of objectives were developed for the LeClerc Creek Allotment:

- (1) The management of the LeClerc Creek Allotment must follow management directions set forth in the Sullivan Lake District Multiple Use Plan. Applicable grazing laws and regulations must also be followed.
- (2) Must be cost effective.
- (3) Improve species composition of desirable forage species on fair condition range.
- (4) Start and maintain an upward trend on fair condition range and maintain an upward or static trend on good condition range.
- (5) Implement the system that is most acceptable to the permittees.
- (6) Minimize damage to riparian habitat, water quality and fisheries habitat.
- (7) Minimize economic impact on permittees.
- (8) Minimize impact to grizzly bear spring range.
- (9) Improve livestock distribution.
- (10) Best meets wildlife management objectives on the allotment for deer and elk.
- (11) Minimize potential for surface soil erosion.
- (12) Provide for best coordination between grazing and timber harvest activities.

The goal of this plan is to favor the following plant species in managing the allotment:

- (1) Kentucky bluegrass - Poa pratensis
- (2) Redtop - Agrostis alba
- (3) Timothy - Phleum pratense
- (4) Orchardgrass - Dactylis glomerata

If the current system of season-long grazing is continued, it is estimated that the stocking rate will have to be reduced by 25 to 30 percent. In 1979 and 1980 a range analysis was conducted to aid in preparing the plan. The charts in Appendices I, II, III, and IV is a summary of land ownership and production on suitable range within the LeClerc Creek Allotment.

It will not be possible to increase stocking on all of the allotments on the District. Management will have to be intensified on some allotments in order to maintain the present stocking rate. This is the case with the LeClerc

Creek Allotment. Intensive management should allow the allotment to support the present stocking rate over the long run. The present season-long system has to be dropped and some type of deferred system must be implemented to sustain existing numbers. Timber harvest activities should also add to the carrying capacity. The amount of additional transitory forage that can be added by timber harvest will depend on the volume removed, slash disposal methods and potential conflicts between grazing and reforestation.

Production and utilization studies may be needed to substantiate the carrying capacity after implementation of the grazing system.

### III. ACTION

The selected management alternative for this allotment is to implement a modified five pasture deferred rotation grazing system. Approximately 2.8 miles of fence will have to be constructed in order to split the allotment into the five pasture units. The following criteria will be used to meet the objectives of this plan:

- (1) Range improvements will be constructed using the most cost effective method available.
- (2) Closely monitor grazing on fair condition range so it is not overused.
- (3) Proper use for the preferred forage species (i.e. Kentucky bluegrass, redtop, orchardgrass and timothy) will be 55 percent.

#### A. Permitted Use and Grazing Capacity

The grazing capacity will remain at 191 cow/calf pairs (764 AUMs) for a season starting June 1 and ending September 30. The stocking rate will be reduced if monitoring reveals that the objectives for management are not being met.

The modified five pasture deferred rotation system will be implemented in 1982 on Jere and Ann Dennis' portion of the allotment. The system will be implemented in 1984 for Dave Goodwin. Until then, Dave Goodwin's cattle will graze only the Mineral Creek Unit. This will allow young trees planted in Dry Canyon to grow tall enough to be out of danger from trampling or grazing. The stocking rate for the Goodwin herd during this two-year period will be 40 head. The season of use will be from 6/15 to 9/1 depending on range readiness.

Jere and Ann Dennis' herd will graze the range as described in the Management System section.

Changes in stocking rates for both permittees will be independent of each other. (i.e. if monitoring indicates an increase or decrease in carrying capacity, the change in stocking will apply only to that portion of the allotment where the carrying capacity has changed).

Management System

Under this modified five pasture deferred rotation system, the two permittees herds will be separated. Dave Goodwin's herd will use the Dry Canyon and Mineral Creek units, and Jere Dennis' herd will use the 4th of July, Lower Bunchgrass and Upper Bunchgrass units.

When the plan is implemented, Dave Goodwin's herd will alternate spring use every other year between his home range and the Dry Canyon Unit. Every other year, Goodwin will leave his cattle on his home pastures until the key forage species in Dry Canyon reach the full flower stage of development. The cattle will be moved to the Mineral Creek Unit when key forage species there have reached the full flower state of development, or Dry Canyon has reached proper use. The Mineral Creek Unit will always be used last because of slow vegetation development and wet soils, due to high elevations. The cattle will be removed from the allotment at the end of the season or when Mineral Creek is at proper use, whichever comes first.

Spring use of Dry Canyon will not be allowed until 1984.<sup>1</sup> The reason for this is the cattle have trampled young trees in some clearcuts and have created regeneration problems. Waiting until the 1984 grazing season will allow the new trees time to grow tall enough so that trampling should no longer be a problem. The non-use of Dry Canyon will reduce the grazing capacity by 77 AUMs each year until 1984. This will also allow time for constructing the needed improvements.

Figure 2 is a graphic illustration of how the system will be implemented for the Goodwin herd after two years non-use on Dry Canyon.

FIGURE 2

Year 1 (i.e. 1984, following 2 years of non-use on Dry Canyon)

Pasture Unit	Calendar Months of Grazing Season Beginning with June:			
	JUNE	JULY	AUGUST	SEPTEMBER
Home Pasture				
Dry Canyon (77 AUMs)	1 ---30 days---			5 days---
Mineral Creek (148 AUMs)			85 days---	9/25-

YEAR 2 (1985)

Home Pasture	---25-30 days			
Dry Canyon		---30 days---		5 days---
Mineral Creek			---55 days---	9/25

YEAR 3 (1986)  
Start Cycle Over

<sup>1</sup>Days of use are based on 77 head of cattle.

<sup>2</sup>Ten days at end of season in Dry Canyon for rounding up cattle.

During the non-use period of Dry Canyon, Mr. Goodwin will be responsible for protecting the reforestation areas as his cattle move through the Canyon to Mineral Creek.

Spring use for the Dennis herd will alternate every other year between the 4th of July unit and the Lower Bunchgrass unit. The Upper Bunchgrass unit will alternate second and last use in the rotation every other year. The Dennis' herd will move through Dry Canyon when they enter and leave the allotment each year. They will always enter Dry Canyon first. This will avoid mixing the herds if the Dennis' had to drive their herd through the Canyon after Goodwin's herd was already there. Goodwin's turn-off dates will be adjusted by two or three days to make up for the time lost when the Dennis' herd is in the Canyon. The Dennis' will also be responsible for protecting the reforestation areas in Dry Canyon as they move their cattle through the canyon to the Lower Bunchgrass or 4th of July units.

In the first year of the rotation, the Dennis' herd will start in the 4th of July Unit. The cattle would move to the Lower Bunchgrass Unit when 4th of July has reached proper use. When this unit was at proper use, the cattle would be moved to Upper Bunchgrass for the rest of the season. The second year, the cows would start on the Lower Bunchgrass Unit. They would stay here until key forage species on the Upper Bunchgrass Unit had reached the full flower stage of development. The cows would stay here until the forage on the 4th of July Unit had reached the seed ripe stage of development around September 1. The cattle would stay on 4th of July until the end of the season. The cycle would start over in the third year. The Hanlon Meadow portion of the Lower Bunchgrass Unit will be used as a holding pasture every year during roundup at the end of the season.

C. Livestock Distribution

Proper placement of salt and riding will help achieve better livestock distribution. The permittee will be responsible for proper salting at least  $\frac{1}{4}$  mile from water and riding to break up large concentrations of cattle on primary range.

FIGURE 3

Rotation Schedule for the Dennis Herd

YEAR 1 (i.e. 1982)

Pasture Unit	Calendar Months of Grazing Season Beginning with June			
	JUNE	JULY	AUGUST	SEPTEMBER
4th of July (95 AUMs)	*25 days -----6/25	1/		
Lower Bunchgrass (253 AUMs)		58 days -----	1/ 8/22	2/ 7-9 days
Upper (124 AUMs)				28 days -----9/19

YEAR 2

4th of July				26 days -----9/26
Lower Bunch-grass	58 days -----		7/28	2/ 2-3 days -----*9/30
Upper Bunch-grass			33 days -----	8/31

YEAR 3

Start Cycle Over

- \*Allow 2 to 3 days in Dry Canyon when moving on and off the allotment.  
 1/ Days of use are based on 114 head of cattle.  
 2/ Several days left for holding cattle in Hanlon Meadows.



D. Range Improvements

Several new range improvements will need to be constructed before the modified five pasture deferred rotation grazing system can be implemented. A list of the proposed improvements, as well as existing improvements, is given below. Figure 4 is a map of the allotment showing existing and proposed improvements.

Existing Improvements

<u>Name of Improvement</u>	<u>Location</u>	<u>Maintenance Responsibility</u>
(1) Dry Canyon - Corral & loading chute	NW $\frac{1}{4}$ Sec 2 T37N,R43E	Goodwin
(2) Dry Canyon-Drift fence ( $\frac{1}{2}$ mile)	" " " "	Goodwin
(3) Dry Canyon cattleguard	" " " "	Forest Service
(4) HanlonMt-Drift Fence (1/3 mile)	SW $\frac{1}{4}$ Sec 20 T36N,R44E	Jere and Ann Dennis
(5) Hanlon Mt. Cattleguard	" " " "	Forest Service
(6) Hanlon Meadow Corral (30 acres)	SE $\frac{1}{4}$ Sec 20 T36N,R44E	Jere and Ann Dennis
(7) Hanlon Station Drift fence ( $\frac{1}{4}$ mile)	NE $\frac{1}{4}$ Sec 29,T36N,R44E	" "
(8) Hanlon Station Cattleguard	" " " "	Forest Service
(9) 4th of July Creek Drift Fence (1/3 mile)	NE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 5,T36N,R44E	Jere & Ann Dennis
(10)4th of July Creek Drift Fence ( $\frac{1}{2}$ mile)	NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 4,T35N,R44E	Jere & Ann Dennis
(11)New 4th of July Rd Drift Fence ( $\frac{1}{4}$ mile)	NW $\frac{1}{4}$ Sec 9, T35N,R44E	" "
(12)New 4th of July Rd Cattleguard	" " " "	Forest Service
(13)West Branch Stock Trail Drift Fence (200 yds)	NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 8,T36N,R44E	Dave Goodwin

Proposed Improvement

<u>Name of Improvement</u>	<u>Location</u>	<u>Maintenance Responsibility</u>
(1) Diamond City Drift Fence ( $\frac{1}{2}$ mile) and Cattleguard	S $\frac{1}{2}$ , SE $\frac{1}{4}$ , Sec 18, T36N, R44E	Goodwin Forest Service
(2) Caldwell Lake Cattleguard	SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 35, T37N, R43E	Forest Service
(3) Caldwell Lake Drift Fence ( $\frac{1}{2}$ mile)	" " " "	Goodwin
(4) Extend Dry Canyon Drift Fence (200 yds)	SW $\frac{1}{4}$ , NE $\frac{1}{4}$ , Sec 2, T37N, R43E	"
(5) Middle Branch Cattleguard	SE $\frac{1}{4}$ , SW $\frac{1}{4}$ , Sec 4, T36N, R44E	Forest Service
(6) Middle Branch Drift Fence	" " " "	Dennis
(7) Extend 4th of July Creek Drift Fence (100 yds)	SE $\frac{1}{4}$ , NW $\frac{1}{4}$ , T35N, R44E	"
(8) Mineral Creek Cattleguard	SW $\frac{1}{4}$ , NW $\frac{1}{4}$ , Sec 33, T37N, R44E	Forest Service
(9) Mineral Creek Drift Fence ( $\frac{1}{4}$ mile)	W $\frac{1}{2}$ Sec 33, T37N, R44 E	*Both Permitted
(10) Mineral Creek Drift Fence (1 mile)	W $\frac{1}{2}$ Sec 4, T36N, R44E	"

\*See orthophoto for division of maintenance responsibilities.

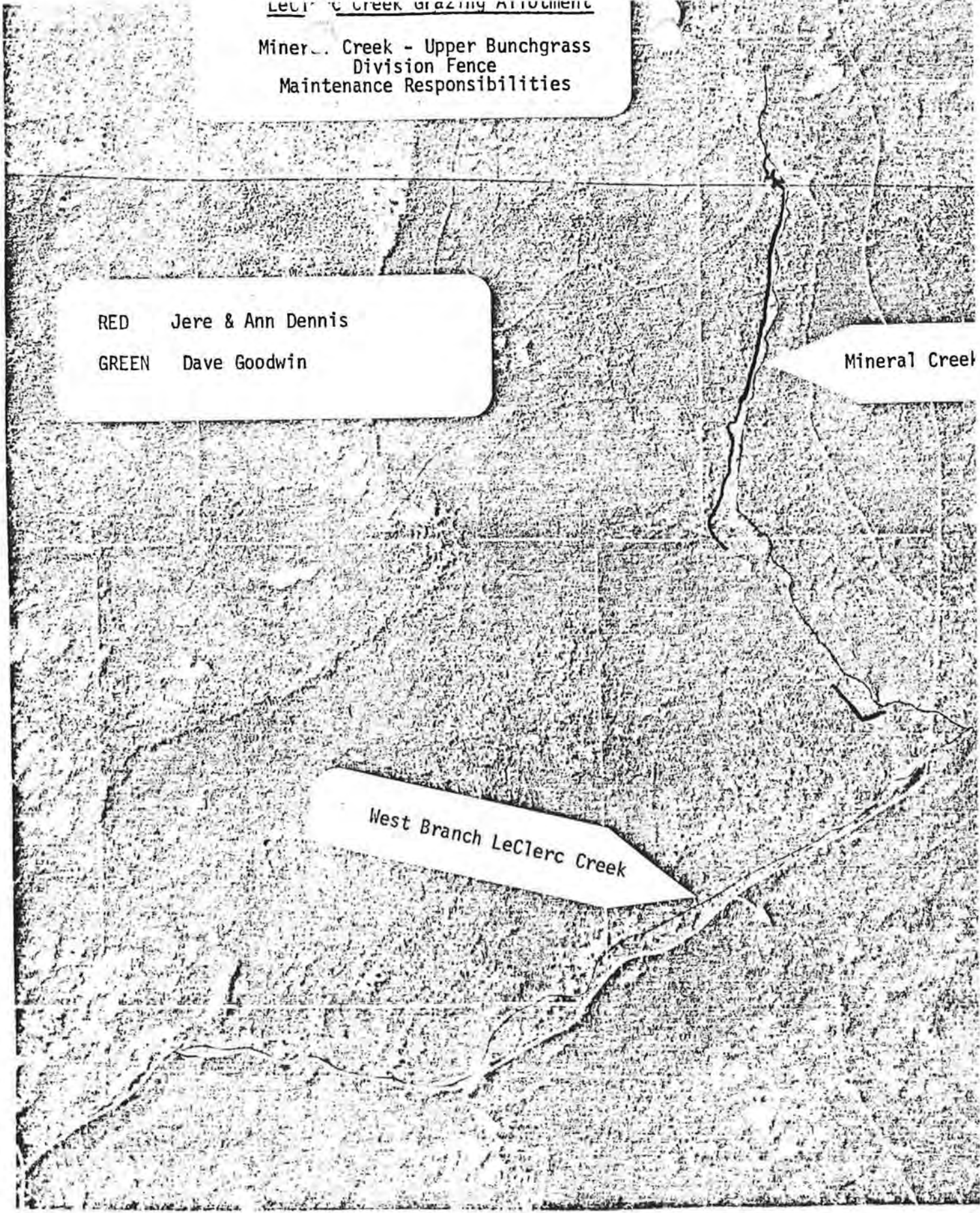
Mineral Creek - Upper Bunchgrass  
Division Fence  
Maintenance Responsibilities

RED Jere & Ann Dennis

GREEN Dave Goodwin

Mineral Creek

West Branch LeClerc Creek



1. Development Program

The following chart lists the proposed range improvements in order of priority, estimated costs, and schedule for completion.

Improvement Name	Estimated Cost to forest Service	Permittee Cost	Priority	Target Completion Date	Acres Affected
Mineral Creek Drift Fence	\$1527.00	\$1500.00	1	FY 82	561
Mineral Creek Cattleguard	\$2600.00	-----	1	FY 82	---
Middle Branch Drift Fence	\$ 611.00	\$ 234.00	2	FY 82	961
Middle Branch Cattleguard	\$2600.00	-----	2	FY 82	---
Extend 4th of July Crk Drift Fence	\$ 182.00	\$ 234.00	3	FY 82	242
Extend Dry Canyon Drift Fence	\$ 140.00	\$ 290.00	4	FY 84	348
Caldwell Lake Cattleguard	\$2600.00	-----	5	FY 84	---
Caldwell Lake Drift Fence	\$ 611.00	\$ 234.00	5	FY 84	543
Diamond City Drift Fence & Cattleguard	\$ 611.00	\$ 234.00	6	FY 84	158
	\$2600.00	-----	7	FY 84	---

All range improvements assigned to and used by a permittee are to be inspected annually and maintained in usable condition for the expected life of the improvement. The Forest Service will cooperate in the reconstruction of an improvement following a natural disaster. Abuse or lack of normal maintenance will not qualify an improvement for Forest Service cooperation in reconstruction of an improvement.

Heavy maintenance of improvements, in addition to normal maintenance, will be done at least once every 10 years. Heavy maintenance is designed to keep an improvement in the best possible condition. This maintenance will include a minimum of the following work:

- (1) Corner posts, gate posts, stretch posts, and/or braces straightened or replaced if needed.
- (2) Rotten, broken, or bent line posts replaced or straightened.
- (3) Staples reset or replaced. Fence clips replaced on steel posts. Barbed wire may be wired to wooden posts if staples will not hold.
- (4) Wires tightened and stays replaced.
- (5) New wires stretched if old wire are too rusty for further use.
- (6) Brush, snags, and down timber in fence right-of-way removed.

## 2. Maintenance Program

Maintenance standards for all range improvements listed in the management plan, permit, and/or annual plan of use are in Appendix V.

### E. Coordination with Associated Resources

#### Timber

The allotment includes portions of the proposed Hungry Mt., 4th of July, and Red LeClerc Timber sale areas. Trampling damage to young trees has been a problem in Dry Canyon and on one or two clearcuts in the LeClerc Basin Timber sale. Livestock grazing will have to coordinate with timber harvesting to prevent damage to young trees in areas of active reforestation. Temporary fencing or intensified herding and salting are two possible means of preventing damage to timber regeneration.

#### Cultural Resources

If cultural resources of significant importance are found during construction, reconstruction or maintenance activities, proper measures will be taken to protect the resource.

#### Wildlife, Including Threatened and Endangered Species

Much of the lower elevations in the allotment are winter range for deer and elk (e.g. along 4th of July Creek and the Middle Branch of LeClerc Creek).

Stocking rates for the cattle will have to be compatible with the big game population. The proper balance between available forage and the number of cattle will assure that the cattle do not utilize valuable winter forage needed by deer and elk.

Care will be taken to prevent early grazing (i.e. during May and early June) on meadows that may provide important spring forage for grizzly bears.

## Fisheries Habitat

Close monitoring of streams will be necessary to locate and/or prevent damage to stream banks and streamside vegetation.

### IV. MONITORING

On-the-ground follow-up procedures must be completed to assure the management plan is implemented and accomplishing stated objectives. The scheduled follow-up studies, inspections, etc. will also form the basis for any recommendations concerning any adjustment in stocking in the future. The permittees will be asked to participate in the following activities to the maximum extent they are willing or able to do so.

#### A. Allotment Inspections

The allotment will be inspected for range readiness prior to turning cattle onto the allotment. At least three inspections will be made each season at or near the time the cattle are moved from one pasture unit to another. The following forms will aid in recording vegetative data on this allotment:

R6-2200-18, Range & Browse Condition-Paced Transect; R6-2210-9, Record of Utilization Ungrazed Plant method; R6-2210-17, Paced Transect; R6-2210-18, Livestock Grazing Allotment Inspection Diary; and R6-2210-41, Record of Line Transect.

Other items may be checked, but as a minimum the following will be inspected:

- (1) Utilization of key areas on 4th of July Creek, the Middle Branch of LeClerc Creek, Whiteman Creek, Redman Creek, the south end of Dry Canyon and near Diamond City.
- (2) Phenological development of forage species to be favored by management.
- (3) Vegetative and soil condition indicators in key areas.
- (4) Planned range improvement maintenance, reconstruction, or construction.

#### B. Production - Utilization

There are no production-utilization studies planned for the near future (i.e. the next two grazing seasons). If the management system is implemented in 1984, these studies could be initiated during the '85 field season.

#### C. Trend Benchmarks

There are no trend transects, existing or planned, on the allotment. These permanent transects may be established when and if it is deemed necessary.

D. Compliance with Annual Grazing Plan

The Annual Grazing Plan will be the document that implements management of the allotment every year. It shall specify what is required of the permittee in terms of livestock management, what range improvement projects will be undertaken that year and which existing improvements need maintenance.

APPENDIX I

LECLERC CREEK ALLOTMENT FORAGE PRODUCTION FOR ALL SUITABLE RANGE

Pasture Unit	Timbered Range lbs/acre	Meadows lbs/acre	Total Production (less 10% for wildlife)	AUMs	Proper Us Factors
Dry Canyon	69,300	86,600	140,310	63	45%
	(231 acres)	(117 acres)		70	50%
				77	55%
				84	60%
Fourth of July	37,500	153,500	171,900	77	45%
	(125 acres)	(116 acres)		86	50%
				95	55%
				103	60%
Lower Bunchgrass	228,900	282,050	459,855	207	45%
	(763 acres)	(198 acres)		230	50%
				253	55%
				276	60%
Upper Bunchgrass	254,700	50,500	274,680	123	45%
	(849 acres)	( 60 acres)		137	50%
				151	55%
				165	60%
Mineral Creek	126,600	174,100	270,630	122	45%
	(422 acres)	(147 acres)		136	50%
				149	55%
				163	60%



APPENDIX II

AUMs ON NATIONAL FOREST LAND IN THE LECLERC CREEK  
ALLOTMENT

Pasture Unit	Timbered Range Production in Lbs	Meadow Production in Lbs.	Total Production (less 10% for wildlife)	AUMs	Proper Use Factors
Lower Bunchgrass	82,200	181,050	236,925	106	45%
	(274 acres @ 300 lbs/acre)	(125 acres @ an avg. of 1538 lbs/acre)		118	50%
				130	55%
				142	60%
Upper Bunchgrass	135,300	32,600	151,110	68	45%
	(451 acres @ 300 lbs/acre)	(39 acres @ 835 lbs/acre)		76	50%
				83	55%
				91	60%
Mineral Creek	126,600	174,100	270,630	122	45%
	(422 acres @ 300 lbs/acre)	(147 acres @ an avg. of 1184 lbs/acre)		136	50%
				149	55%
				163	60%
Fourth of July	37,500	153,500	171,900	77	45%
	(125 acres @ 300 lbs/acre)	(117 acres @ avg. of 1312 lbs/acre)		86	50%
				95	55%
				103	60%
Dry Canyon	69,300	86,600	140,310	63	45%
	(231 acres @ 300 lbs/acre)	(117 acres @ an avg. of 740 lbs/acre)		70	50%
				77	55%
				84	60%

APPENDIX III

AUMs ON BURLINGTON NORTHERN AND IN THE LECLERC CREEK ALLOTMENT

Pasture Unit	Timbered Range Production in Lbs	Meadow Production in Lbs.	Total Production (less 10% for wildlife)	AUMs	Proper Us Factors
Lower Bunchgrass	70,800	72,000	119,520	54	45%
	(236 acres @	(47 acres @		60	50%
	300 lbs/acre)	an avg. of		66	55%
		1319 lbs/acre)		72	60%
Upper Bunchgrass	90,600	16,300	96,210	43	45%
	(302 acres @	(19 acres @		47	50%
	300 lbs/acre)	860 lb/ac.)		53	55%
				58	60%
Mineral Creek	0	0	0	0	0
Fourth of July	0	0	0	0	0
Dry Canyon	0	0	0	0	0

APPENDIX IV

AUMs ON STATE LAND AND IN THE LECLERC CREEK ALLOTMENT

Pasture Unit	Timbered Range Production in Lbs	Meadow Production in Lbs.	Total Production (less 10% for wildlife)	AUMs	Proper Us Factors
Lower Bunchgrass	75,900	39,000	103,410	47	45%
	(253 acres @	(26 acres @		52	50%
	300 lbs/acre)	an avg. of		57	55%
		1500 lbs/acre)		62	60%
Upper Bunchgrass	28,800	1,600	27,360	12	45%
	(96 acres @	(2 acres @		14	50%
	300 lbs/acre)	800 lb/ac.)		15	55%
				16	60%
Mineral Creek	0	0	0	0	0
Fourth of July	0	0	0	0	0
Dry Canyon	0	0	0	0	0

## APPENDIX V

### MAINTENANCE STANDARDS FOR RANGE IMPROVEMENTS

#### FENCES

Fences are constructed to last a minimum of 25 to 30 years. Many fences will last longer if they are properly maintained.

#### CLEARING

Clear right-of-way six feet each side of the fence of all logs, trees, brush, and overhanging trees or snags, and/or leave sufficient passage for livestock and horseback travelers.

#### WIRE

All broken wire will be spliced with #12 $\frac{1}{4}$  barbed wire or #10 or larger galvanized tie wire. Slack wire will be tightened by splicing. Use wire stretchers to tighten wire. Twisting or kinking of wire to take up slack will not be permitted.

#### STAPLES AND WIRE

Missing staples or nails are to be replaced. Staples will be tight against wire on solid ties but will provide for movement of the wire otherwise (1 $\frac{1}{2}$ " staples should be used). Loose or replaced staples should be driven to desired depth. Do not kink wire by driving staples too deep.

#### STEEL POSTS

Use where soil depth permits. They will be straightened or redriven deep enough that the spade is below ground level. Steel posts will be relieved of upward pull due to changes in terrain by use of a rock anchor or rock jack of sufficient weight to prevent movement. Figure-fours or wooden posts will be used in sites where weight of snow or downward pressure because of terrain would drive the steel posts farther into the ground.

#### BRACES

Braces and corners must be maintained to provide needed support to the fence. Rotten or unserviceable material will be replaced and loose braces reset. Corners must be maintained so posts are not jerked out of the ground when wire is stretched. Five post corners may need to be used in key support corners.

#### ROCK JACKS, POSTS, AND FIGURE-FOURS

Rotten or unserviceable material, where staples or nails will not hold, will be replaced. Only straight, sound material is to be used. Material should not be less than 3 inches by 4 inches. If rounded green material is used, skin bark on two sides. Rocks will be replaced under all bottom corners and on the platform of the jack.

### GATES

Gates are to be repaired or replaced when unserviceable. The standard of four wires with stays spaced evenly with a maximum of four feet between stays will be used. Gate braces and posts must be replaced when unserviceable or reset when loose.

### STAYS

Replacement stays will be a minimum of 2 inches by 3 inches (not to exceed 4 inches in diameter, if round), and between 42 inches and 48 inches long. Wire stays may be used where snow accumulation is not a problem.

### TREES

Trees should generally not be used as fence posts. There may be cases in timber-covered areas where trees within 2 feet of existing fenceline may be used in place of posts or jacks, providing they are at least 8 inches in diameter at breast height. A slab of not less than 2 inches in thickness must be spiked to the tree before the wire is fastened. Flatten the bark before placing the slab, but do not injure inner bark if avoidable or remove bark completely.

### MAINTENANCE MATERIAL

Material needed annually for maintenance, including steel or wood posts, will be provided by the Permittee. Dead wood material available on site may be used in maintenance as specifically approved in advance by the District Ranger. No old materials will be left on the site following maintenance (i.e., pieces of wire, old nails, wire spools, old wooden posts, etc.).

### STOCK TRAILS

Maintain existing construction. Keep open and clear.