MOOSE CAMP CREEK REST ROTATION MANAGEMENT PLAN

Submitted to Mr. Hormay in August, 1965.

Subject: Follow up report summary

A. First Year

Although the fencing program was not complete in time to receive maximum benefits, the scheduled rest pasture received full rest and about 75% of the deferred pastures received part of a seasons deferment.

Vigor and forage production in the rest pasture increased markedly.

Some regrowth occured in the early spring pastures.

Cattle conditions seemed improved over previous years.

B. Second Year

Due to poor moisture there has been very little new growth on pastures below 6,000 feet in elevation.

On the pastures above 6,000 feet growth is slow but progressing.

Most noticeable is the growth in the rest pasture (6,200 to 7,000 ft.)

The growth here is about 25 to 50% greater than in the other pastures above 6,000 feet.

Due to the droughthy conditions the users asked for and were allowed one week of use (from May 21 to May 28) in one of this years deferred use pastures. This was to allow one of the early spring pastures an extra week of growth before grazing.

Use may or may not be made on the deferred pasture depending on the conditions later this summer and fall.

SUPPLEMENTAL DATA: MOOSE-CAMP CREEK COMMUNITY ALLOTMENT
REST-ROTATION GRAZING SYSTEM

A. Grazing System - Optimum

1. A rest-rotation is being initiated during the 1965 grazing season.

The grazing unit contains five rotational pastures, one of which will be rested each year. The system has been coordinated as much as possible with the U.S.F.S. rest-rotation plan for the Moose-Camp allotment on the Deerlodge National Forest. (See enclosed pasture and rotation plans).

2. Movement within the system will be based on proper use and the maturity of the key forage species, i. e.:

a. Agropyron spicatum

b. Festuca idahoensis

(See enclosure #3 for maturity dates)

3.* Spring grazing will begin about May 21st. All livestock will be removed from the allotment about September 30th.

4. Sequence of treatment.

a.

Year	Pasture No. 2	Pasture No. 4	Pasture No. 1	Pasture No. 3	Pasture No. 5
1965	Rest	Early	Early	Late**	Late*
1966	Late*	Rest	Early	Early	Late**
1967	Late**	Late*	Rest	Early	Early
1968	Early	Late**	Late*	Rest	Early
1969	Early	Early	Late**	Late*	Rest

*Late use, seed trampling. **Late use, seedling establishment

Early use - beginning about May 21st
Late Use - use beginning after seed maturity of key forage species

b. Subsequent years may be a repeat of the above schedule. However, it is very likely a field inspection at the end of the first rotation cycle will indicate that a modification of the initial treatment is needed.

*Note: About July 8th 949 cattle are moved from the BLM allotment to the Forest allotment.

5. At the present time the users are hauling water to pasture No. 1. This practice will continue as long as necessary. The BLM is planning to develop artificial watersheds on this pasture in the near future.

B. Grazing System - Modified

1. Poor range condition is general throughout the allotment. To initiate a grazing system based on the maturity of the key species would require a large reduction in stocking.

   The range users desired to help make the plan a success and chose to take a 20% reduction.

   Rather than impose a larger reduction on the range users it was believed that a modified rotation plan along with our proposed sagebrush control project would still result in an upward trent in range condition.

2. The plan was therefore modified as follows:

   a. Movement within the system, for at least the first rotation cycle, will be based on proper utilization. As proper utilization is reached in the early use pastures the livestock will be moved into the late use pastures.

   b. All livestock will be removed from the allotment at the time proper utilization is reached on the late use pastures or by September 30th, whichever is first.

   c. No use will be made on the rest pasture.

C. Additional Information

1. Fencing. Fence lines were located giving consideration to topography, vegetation, and livestock grazing habits.

2. Sequence of rest and rotation.

   a. Pasture No. 2 was rested first as it contained a large percent of spray area. It also had the best potential for response to treatment.

   b. Pasture No. 4 was rested next for the same reason.

   c. Pasture No. 1 was rested next as it was poor in condition and also required water hauling.

   d. Pasture No. 3 was rested next as it was also in a poor condition.

   e. Pasture No. 5 was left until last as it started the cycle in the best condition and could stand the increase in grazing pressure.

3. Estimated grazing capacity at end of program

Pasture No. 1 -	990 AUMs
Pasture No. 2 -	1,070 AUMs
Pasture No. 3 -	875 AUMs
Pasture No. 4 -	950 AUMs
Pasture No. 5 -	1,020 AUMs

4. Grazing capacities were taken from 1952 Missouri River Basin Studies. Since part of the area was planned for rehabilitation no resurvey was conducted.

5. Studies.

   a. Trend photo plots (2' x 2' frame) will be located in key areas throughout the allotment.

   b. Production and utilization studies will be conducted on each pasture each year.

   c. Actual use will be recorded each year and made part of the allotment records.

Enclosure 1

RANGE INVENTORY, ANALYSIS, AND MANAGEMENT PLAN

Project Number 1 **Compiler** K. R. Kuhlman **Date** July 9, 1965

Allotment Moose-Camp Creek Common **Unit** Rochester

District Dillon **State** Montana

Name of Permittee Moose-Camp Creek Stock Association members

Field Examination (Date) Summer 1964

Personnel: Name	**Position**
Oscar E. Anderson	Range Conservationist
Henry J. Bauman	Range Technician
Kenneth R. Kuhlman	Range Conservationist

Table 2. Composition, value, use and development of plant species in natural vegetation type or culturally treated area

Type or treated area (name) 1 - Grass (1)

Species	Amount in cover 2/	Forage value (Check one) Ex	Gd	Fr	Pr	Utilization ave.	Development Start growth	Flowering	Seed ring	Regrowth 3/ Leaves -twigs	Flower stalks
Grasses & Grass-like	(percent)					(Perc't	(date)	(date)	(date)	(date)	(date)
Stco	15			X		60	4/25	June	7/20	7/5	6/10
Bogr ✓	42			X		40	6/10	July	8/15	8/5	7/15
Kocr	10		X			50	5/1	June	7/20	6/20	6/10
Agsp ✓	10	X				75	4/20	June	8/10	8/15	7/10
Cael	5		X			50	4/20	June	7/20	7/30	5/20
Pose	5			X		40	4/20	June	6/30	6/30	6/5
Total	87										
Forbs											
ANNU	6			X		20					
Total	6			X		20					
Shrubs and trees 1/											
Artr ✓						10					
Arfr ✓						0-5					
Chna ✓	7				X	0	5/1	July	8/15		
Gusa ✓						0					
Chvi ✓						0					
Total	7										
Grand Total	100										

1/ Including conifers

2/ For trees and shrubs include estimates only for species that can be changed or removed in a range improvement program.

3/ How late in spring can the species be grazed and still produce grazable leaves or twigs or seed-producing flower stalks?

DESCRIPTION, INVENTORY AND ANALYSIS OF ALLOTMENT

Class of stock Cattle, horses **Stocking (AUs)** 1,658 **(AUMs)** 3,297

Season of grazing (Dates) May 21 **to** September 30

Character of topography Foothills and mountainous

Table 1. Area of natural vegetation types and culturally treated areas grazed by livestock and by game

Vegetation types and culturally treated areas 1/	Total area of type		Area grazed by livestock		Area grazed by game	
			At present	30 years from now 2/	At present	30 years from now 2/
(name)	(acres)	(percent)	(acres)	(acres)	(acres)	(acres)
7 T Timber	2,345	9	230	230	780	780
*4 Sagebrush	16,814	62	11,896	14,396	1,800	1,700
1 Grass (Area 1)	922	3	922	922	-	-
1 Grass (Area 2)	1,840	7	1,100	1,840	180	180
5 Mountain shrub	5,250	19	2,625	5,000	5,250	5,250
8,115 acres treated by aerial spray. Carrying capacity estimated to improve						
from 7.3 A/AUM to 4.0 A/AUM.						
Other						
Allotment Total	27,171	100	16,773	22,388	8,010	7,910

1/ List culturally treated areas under appropriate vegetation types.
2/ Under improved management.

Table 2. Composition, value, use and development of plant species in natural vegetation type or culturally treated area

Type or treated area (name) 1 - Grass (2)

Species	Amount in cover 2/	Forage value (check one) Ex	Gd	Fr	Pr	Utilization ave.	Development: Start growth	Flowering	Seed ripe	Regrowth 3/: Leaves-twigs	Flower stalks
Grasses & Grass-like	(percent)					(Perc't	(date)	(date)	(date)	(date)	(date)
Agsp ✓	25	X				60	4/20	June	8/10	8/15	7/10
Kocr	8		X			15	5/1	June	7/30	6/20	6/10
Feld	30		X			40	5/1	July	8/15	8/15	7/10
Cael	5		X			5	4/20	June	7/20	7/30	5/20
Pose	5			X		10	4/20	June	6/30	6/20	6/5
Stco	10			X		20	4/25	June	7/20	7/15	6/10
Spcr	T			-		-	-	-	-	-	-
Total	83										
Forbs											
LUPI				X		0-10	5/1				
ERIG					X	"	"				
ANTE					X	"	"				
Phho					X	"	"				
Sede					X	"	"				
Total	10										
Shrubs and trees 1/											
Artr ✓					X	0-5	5/1				
Arfr ✓					X	"	"				
Teca					X	"	"				
Chna ✓					X	"	"				
Chvi ✓					X	"	"				
Gusa ✓					X	"	"				
Total	7										
Grand Total	100										

1/ Including conifers

2/ For trees and shrubs include estimates only for species that can be changed or removed in a range improvement program.

3/ How late in spring can the species be grazed and still produce grazable leaves or twigs or seed-producing flower stalks?

Table 2. Composition, value, use and development of plant species in natural vegetation type or culturally treated area

Type or treated area (name) 4 - Sagebrush

Species	Amount in cover 2/	Forage value (check one) Ex	Gd	Fr	Pr	Utilization ave.	Development Start growth	Flowering	Seed ripe	Regrowth 3/ Leaves -twigs	Flower stalks
Grasses & Grass-like	(percent)					Pct	(date)	(date)	(date)	(date)	(date)
Feid	10		X			50	5/1	July	8/20	8/15	7/10
Pose	15			X		35	4/20	June	6/30	6/20	6/5
Cafi	5			X		50	4/20	June	6/20	7/30	5/20
Agsp ✓	20	X				75	4/20	June	8/10	8/15	7/10
Agsm ✓	T		X								
Brcu	T		X								
Total	50										
Forbs											
LUPI	5			X		0-15	5/1				
Acla	5				X	"	"				
ERIG)											
ANTE	5				X	"	"				
Annuals)											
Total	15										
Shrubs and trees 1/											
Artr ✓	25				X	0-10	5/1				
Arfr) ✓											
Chma: ✓	10				X	"	"				
Gusa) ✓											
Total	35										
Grand Total	100										

1/ Including conifers

2/ For trees and shrubs include estimates only for species that can be changed or removed in a range improvement program.

3/ How late in spring can the species be grazed and still produce grazable leaves or twigs or seed-producing flower stalks?

Table 2. Composition, value, use and development of plant species in natural vegetation type or culturally treated area

Type or treated area (name) Mountain Shrub.

Species	Amount in cover 2/	Forage value (Check one) Ex	Gd	Fr	Pr	Utilization ave.	Development Start growth	Flowering	Seed ripe	Regrowth 3/ Leaves -twigs	Flower stalks
Grasses & Grass-like	(percent)					(Percent)	(date)	(date)	(date)	(date)	(date)
Stco	25			X		50	4/25	June	7/20	7/15	6/10
Bogr ✓	15			X		20	6/10	July	8/15	8/5	7/15
Kocr	5		X			60	5/1	June	7/20	7/20	6/10
Pose	T										
Hoju	T										
Brte	T										
Agsp ✓	5	X				75	4/20	June	8/10	8/15	6/10
Total	50										
Forbs											
PHHO)						0					
ERIG:	15					0					
ANTE:						0					
Annuals)						10					
Total	15										
Shrubs and trees 1/											
Cele	15					60	5/1	July	8/15		
Artr ✓	5					10	5/1	July	9/1		
Arfr ✓	5					5	5/1	July	8/15		
Gusa ✓	5					0		Aug.			
Chla	5					0					
Total	35										
Grand Total	100										

1/ Including conifers

2/ For trees and shrubs include estimates only for species that can be changed or removed in a range improvement program.

3/ How late in spring can the species be grazed and still produce grazable leaves or twigs or seed-producing flower stalks?

Table 2. Composition, value, use and development of plant species in natural vegetation type or culturally treated area

Type or treated area (name) Timber 7 T.

Species	Amount in cover 2/	Forage value (check one) Ex	Gd	Fr	Pr	Utilization ave.	Development Start growth	Flowering	Seed ripe	Regrowth 3/ Leaves -twigs	Flower stalks
Grasses & Grass-like	(percent)					(Perc't	(date)	(date)	(date)	(date)	(date)
NO WRITE UP--RATED AS NON-USABLE											
Total											
Forbs											
Total											
Shrubs and trees 1/											
Total											
Grand Total											

1/ Including conifers

2/ For trees and shrubs include estimates only for species that can be changed or removed in a range improvement program.

3/ How late in spring can the species be grazed and still produce grazable leaves or twigs or seed-producing flower stalks?

Table 4. Estimated utilization of available forage in natural vegetation types and culturally treated areas and condition of range

Vegetation type or treated area[1]	Use of total tonnage of forage in type	Range condition				
		Vigor of forage species	Ratio of good to poor forage species	Density of forage	Sheet Erosion	
					Depth	Extent
	(percent)	(L,M,H)[2]	(percent)[3]	(percent of potential)	(Inches)	(Percent of ground area)
7 T Timber	-	-	-	-	-	-
4 Sagebrush	60	X	40-60	33	2	80
1 Grass (1)	80	X	25-75	50	1	25
1 Grass (2)	45	M	45-55	75	Less 1	25
5 Mountain Shrub	50	H	25-75	85	Less 1	10
Allotment average	59 ✔	-	34-66	61	1	35

1/ List treated areas (reseeded, sprayed, etc.) under appropriate vegetation types.
2/ L = low, M = moderate, H = high.
3/ From Table 2 Excellent and good species = good; fair and poor species = poor.

What percent of the livestock forage on the range is used by game? _____

What are the principal foraging game animals? _____

Table 6. Effect of planned cultural treatments on grazing capacity

Vegetation type to be treated	Area	Capacity at present		Capacity 30 yrs. hence due to:				Effect of cultural treatment (6) minus (4)
				Grazing management		Cultural treatment		
(name)	Acres	Ac/AUM (1)	AUMs (2)	Ac/AUM (3)	AUMs (4)	Ac/AUM (5)	AUMs (6)	AUMs (7)
Artificial reseeding								
Total								
Spraying or other treatment								
Grass (1)	922	6.5	142	4.5	205			
Grass (2)	1,840	5.2	354	4.5	408			
Sagebrush	8,115	7.3	1,112			4.0	2,029	289
Sagebrush	8,699	7.3	1,192	5.0	1,740			
Mountain shrub	5,250	17.9	293	10.0	525			
7 T Timber	2,345	0	-	-	-	-	-	
Total	27,171		3,093		2,878		2,029	

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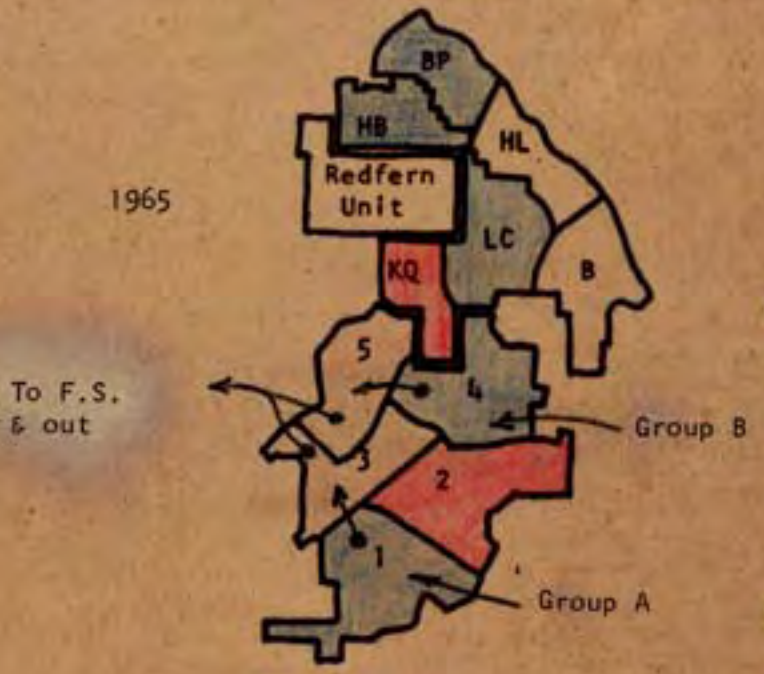
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ATTACHMENT 2

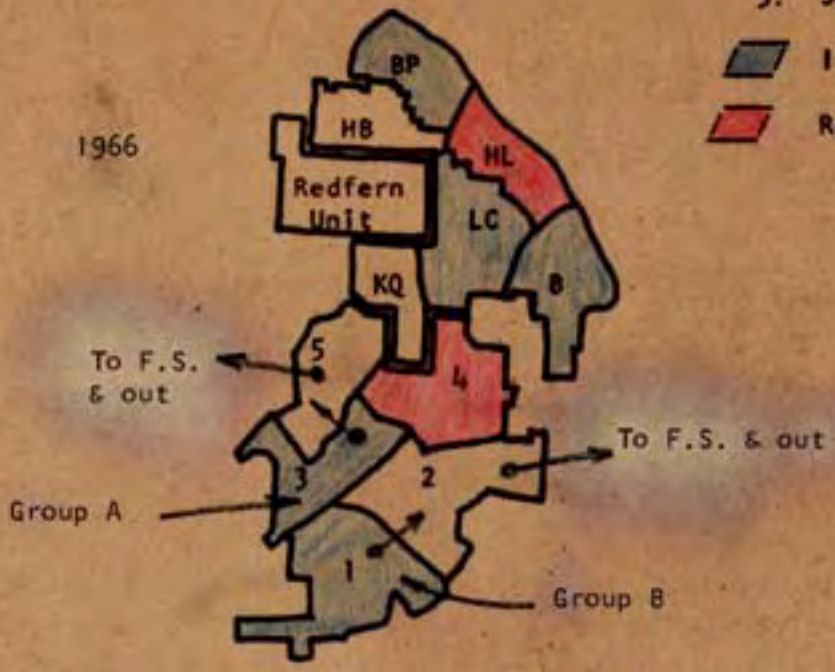


FOREST SERVICE ALLOTMENT
- BP = Burton Park
- HB = Humbug
- HL = Highland
- LC = Little Camp
- KQ = King-Queen
- B = Beef

BLM ALLOTMENT
1. Jackrabbit
2. Maloney-Klondike
3. King-Queen
4. Wickeyup
5. Soap Gulch

Initial turnout

Rest pasture



ROTATION PLAN
MOOSE-CAMP CREEK COMMUNITY ALLOTMENT

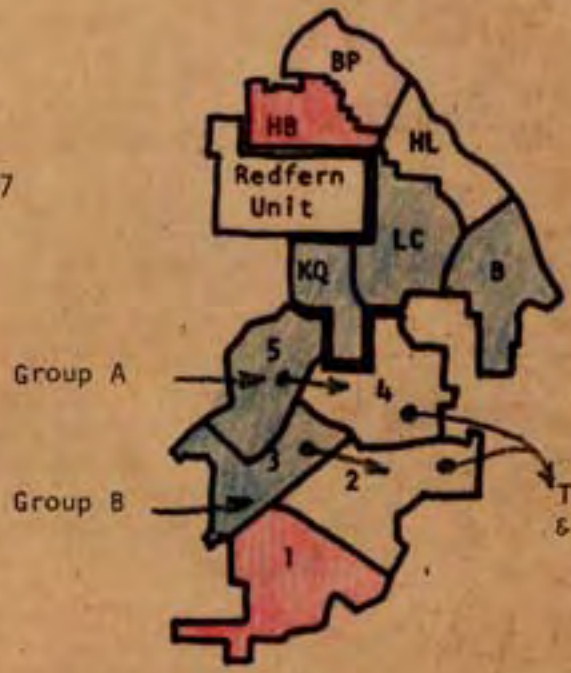
KRK 4-1-65

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ATTACHMENT 2

1967



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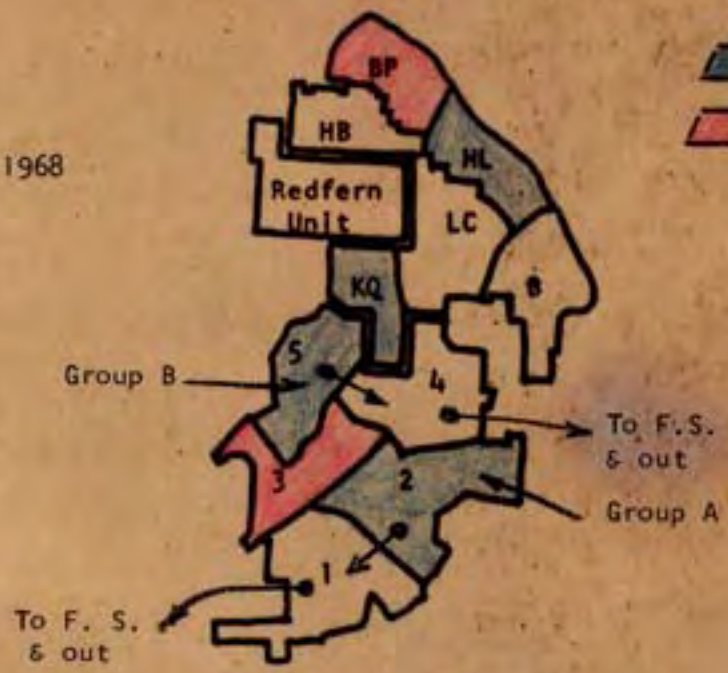
4. Wickeyup
5. Soap Gulch

Initial turnout

Rest pasture

1968



ROTATION PLAN
MOOSE-CAMP CREEK COMMUNITY ALLOTMENT

KRK 4-1-65

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ATTACHMENT 2

1969

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4. Wickeyup
5. Soap Gulch

Initial turnout

Rest pasture

ROTATION PLAN
MOOSE-CAMP CREEK COMMUNITY ALLOTMENT

KRK 4-1-65

ATTACHMENT 3

Proper use will be determined by a visual estimate of grazing use in the allotment using the following guide:

Guide to Proper Range Use

Use Rating	Description
Unused	No livestock use
Slight	Practically undisturbed. Only choice areas and choice forage grazed.
Moderate	Most of the range is grazed. Little or no use of poor forage. Little trailing to grazing.
Full	All fully accessible areas are grazed. The major sites have key forage species properly utilized.
Close	All accessible range plainly shows use and major sections are closely cropped. The range has a "swept-clean" look.
Severe	Key forage species almost completely used. Low-value forage carrying grazing load. Trampling damage is widespread in accessible areas.
Extreme	Range appears stripped of vegetation. Key forage species are weak from continued grazing of regrowth. Poor quality forage closely grazed. Livestock trail great distances for forage.

Utilization will be estimated for each unit on the basis of the available and accessible forage within the boundaries of the unit. Key forage species and proper utilization of them is specified as follows:

Key Forage Species: Bluebunch wheatgrass
Idaho fescue

Note: This guide adapted from the Soil Conservation Service guide to proper use.

Maximum Range use under the three (3) pasture rest rotation system:

1. Early use pasture - Full or Close
2. Rest - No use
3. Late use pasture - Moderate or full

Maximum Range use under the five (5) pasture rest rotation system:

1. Early use pasture - Full or Close use
2. Rest - No use
3. Seed trampling pasture - Moderate use
4. Seedling establishment pasture - Moderate use
5. Mid-season use pasture - Moderate use

AMENDMENT

Moose-Camp Creek Allotment Agreement

III. Grazing Schedule

The grazing schedule is amended to the following:

Year	Pasture No. 1	Pasture No. 2	Pasture No. 3	Pasture No. 4	Pasture No. 5
1966	Late use	Late use	Early use	Rest	Early use
1967	Rest	Early use	Late use	Late use	Early use
1968	Late use	Early use	Rest	Early use	Late use
1969	Early use	Late use	Late use	Early use	Rest
1970	Early use	Rest	Early use	Late use	Late use

Early use - Use starting May 21

Late use - Use after proper use is reached on the early use pasture.

If at all possible, try to stay in the early use pasture until it is time to turn on the Forest allotment, July 1st to July 8th. Then, the remainder of the livestock could go to one of the late use pastures. This would leave the other late use pasture for use if necessary after August 15th.

Stuart W. Herbert
acting Dist Ranger
MAR 14 1966

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ATTACHMENT 2

1966

* One week of turnout use was made on this pasture to allow a week of extra growth in pasture #5 (See Narrative)

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4. Wickeyup
5. Soap Gulch

Initial turnout

Rest pasture

1967

ROTATION PLAN
MOOSE-CAMP CREEK COMMUNITY ALLOTMENT

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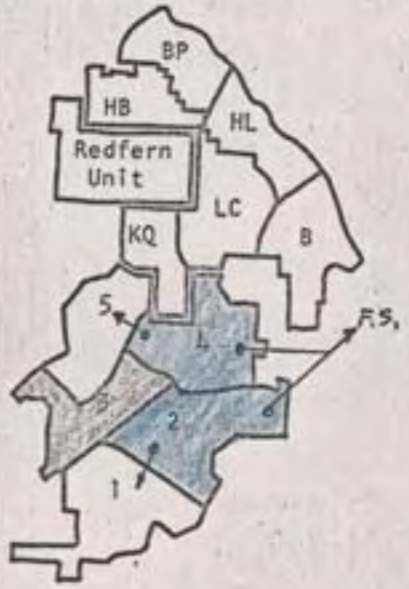
BUREAU OF LAND MANAGEMENT

ATTACHMENT 2

1968



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BLM ALLOTMENT
1. Jackrabbit
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4. Wickeyup
5. Soap Gulch

Initial turnout

Rest pasture

1969

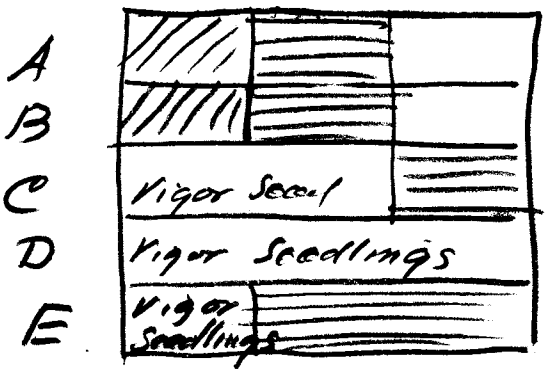
ROTATION PLAN
MOOSE-CAMP CREEK COMMUNITY ALLOTMENT

Moose Camp Creek Allotment Sept 16 1966
Dillon District

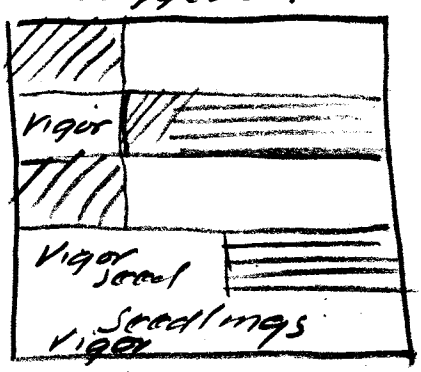
Community allotment 6 or 7 permittee
Tom Conner, Glen Chairman, Secretary
Livestock Cattle Cow calves some yearlings
Vegetation
Dominantly bunchgrass types
Rough topography but easily traversed by cattle

Formula 5 treatment

In use



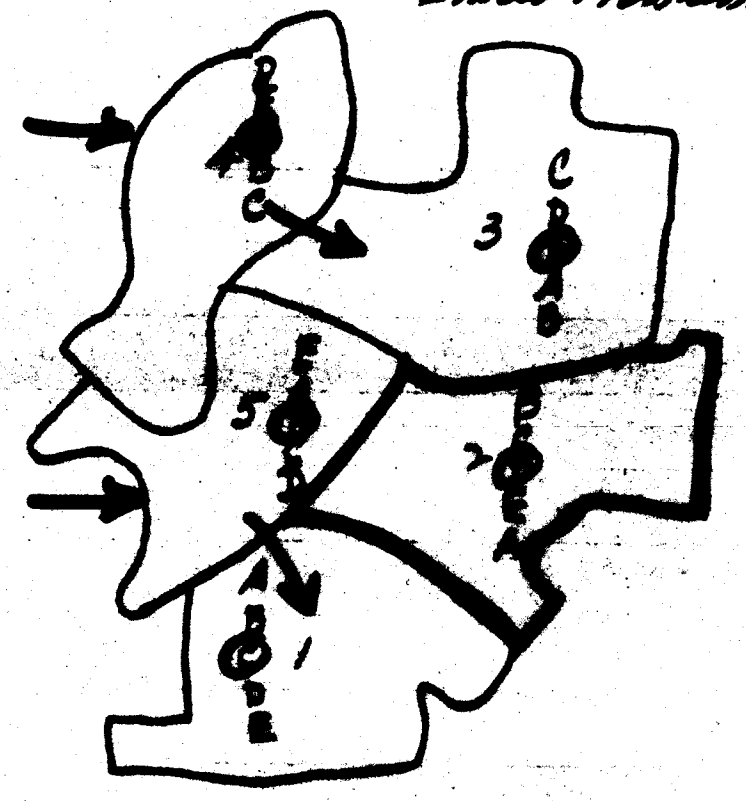
Suggested ✓



Emphasis vigor yield

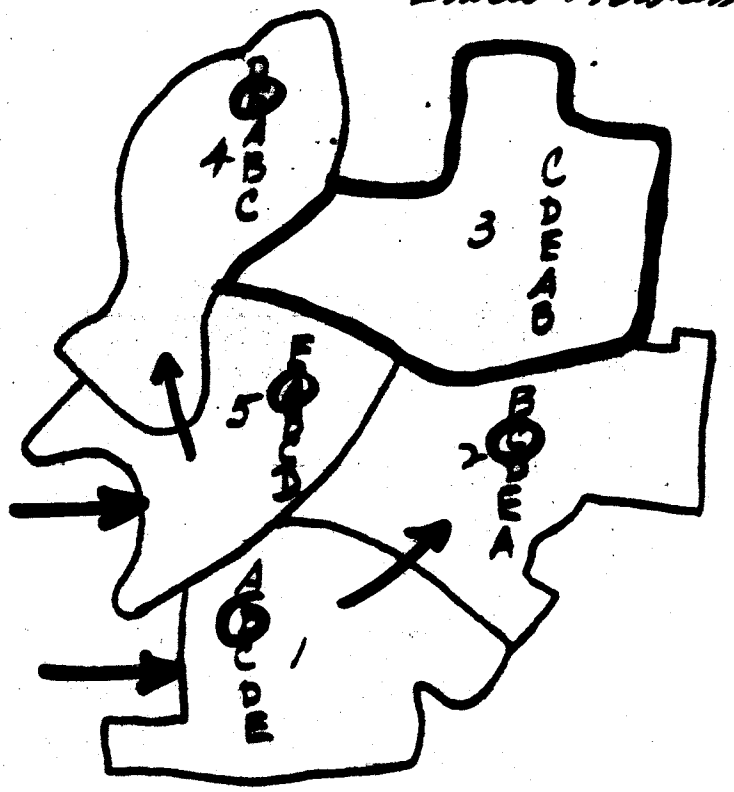
✓ by ALH after looking at allotment

BLM - Moose - Camp Creek
Community Allotment
Dillon Montana



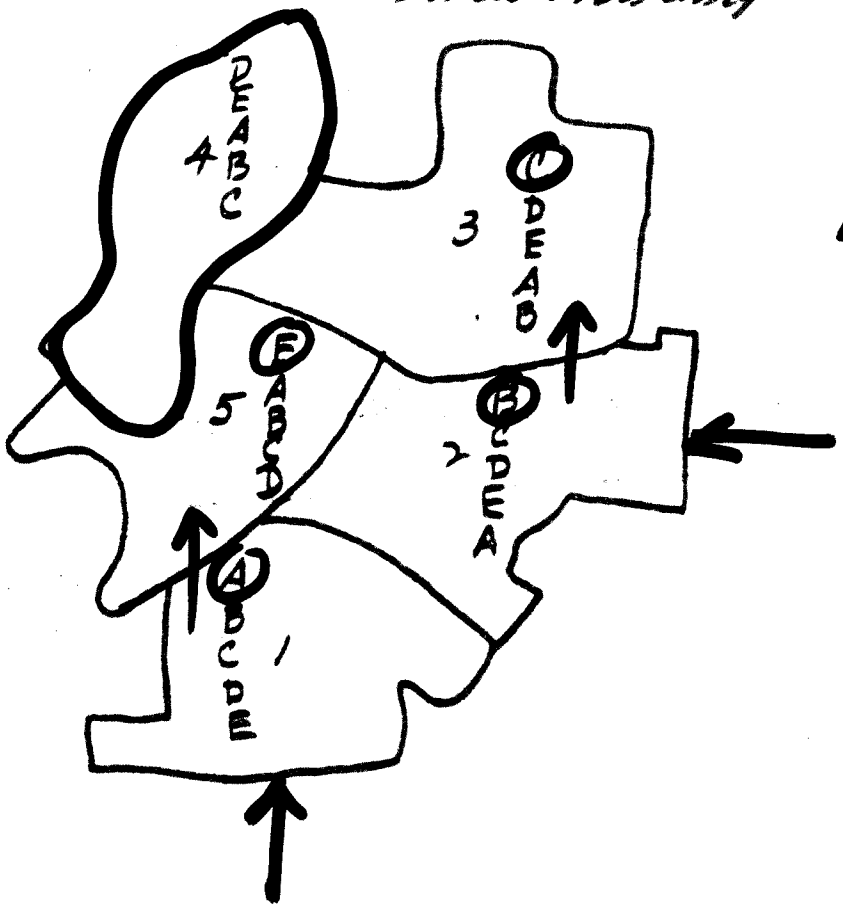
1965

BLM - Moose-Camp Creek
Community Allotment
Dillon Montana



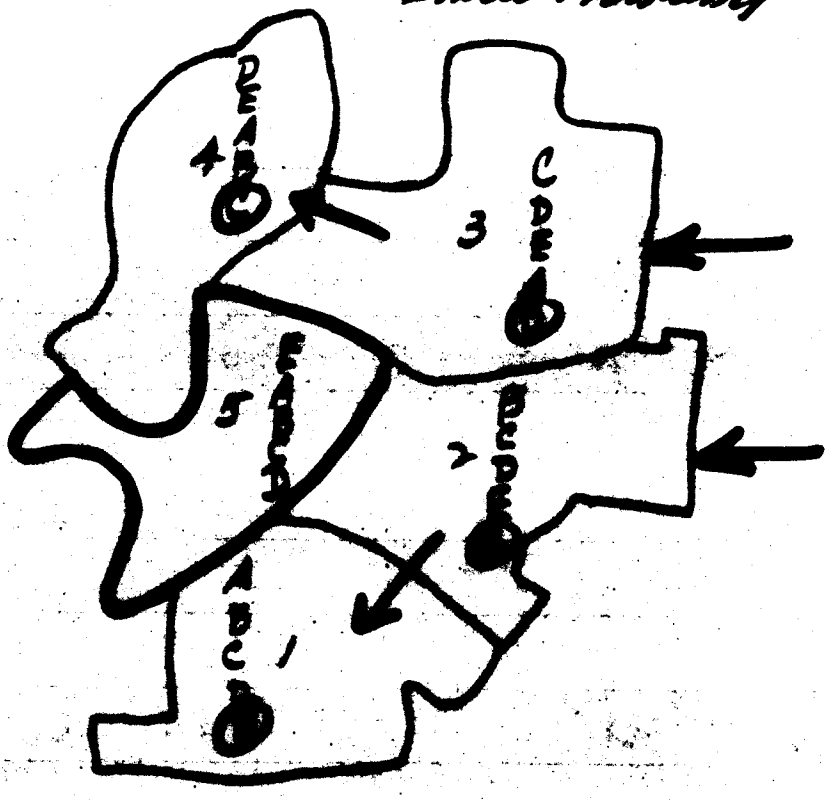
1966

BLM - Moose Camp Creek
Community Allotment
Dillon Montana



1967

BLM - Moose - Camp Creek
Community Assessment
Dillon Montana

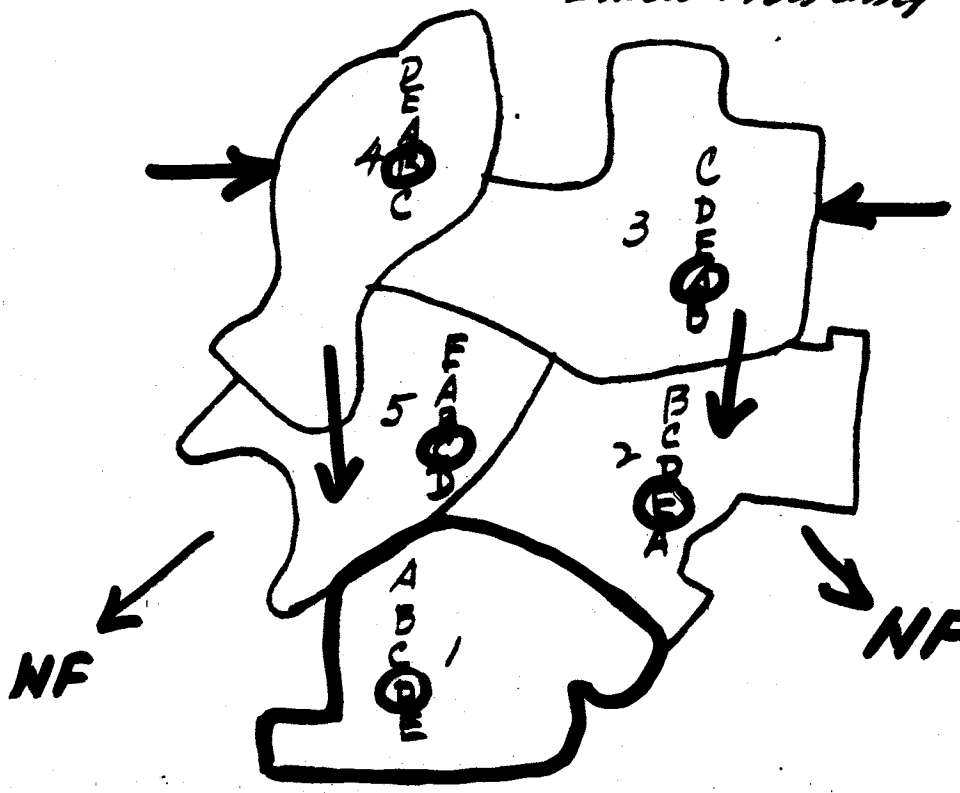


1968

BLM - Moose - Camp Creek

Community Allotment

Dillon Montana



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