

ALLOTMENT MANAGEMENT PLAN

Sheep Creek C & H Allotment

Panguitch Ranger District, Dixie National Forest, Region 4

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ACTING FOREST SUPERVISOR

I. GENERAL INFORMATION

A. History and Past Use

Prior to 1947 this allotment was part of the Whiteman Bench Sheep Allotment. Forty percent of the allotment area was in Bryce Canyon National Park. In 1935, 2423 sheep grazed the Whiteman Bench Allotment, then known as the North and South Henderson Allotments. In 1938, 899 sheep were permitted, and in 1940 numbers were reduced to 824. A cattle drift of 140 head was permitted prior to 1947.

In 1947 the Sheep Creek portion of the allotment, with an estimated grazing capacity of 909 sheep months, was separated from the Johnson Bench Allotment and use was changed to cattle. The changed permit was for 26 head of cattle for a season of 6/1-8/31. Grazing use on the National Park portions was terminated through this transaction.

In 1958 the permittee signed a Memorandum of Understanding resulting in total non-use from 1958 through the grazing season of 1962. During this period extensive range and watershed rehabilitation work was completed on the allotment. Some 745 acres were reseeded. In 1963 non-use was ended. Twenty-six head of cattle, with a season of 6/16-8/31, were grazed in 1963 and 1964. Starting in 1965 an additional 24 head temporary permit was allowed and the period of use for both temporary and term permits was June 1 to August 30. In 1966 a term permit for 26 head was transferred to the present permittee. Also, at this time, a temporary permit was issued for 26 head for the 6/1-6/15 period and for 24 head for the 6/1-8/31 period. In 1972 the permittee grazed the allotment with 40 head rather than the usual 50. The 40 livestock amounted to 26 head of the term permit and 14 of the temporary permit. The season of use was from 6/1 to 9/30.

Listed below is the past use on the allotment for the 1943-1972 period.

<u>Year</u>	<u>Number</u>	<u>Animal Months</u>
1943-1946	50 (cattle)	190
1943-1946	824 (sheep)	2472
1947-1951	26 (cattle)	78
1952	23	65
1953-1954	26	78
1955	26	75
1956	26	68

Year	Number	Animal Months
1957	26 (cattle)	65
1958-1962	(Total non-use due to reseeding)	
1963-1964	26	65
1965	50	125
1966	48	152
1967-1968	50	175
1969	50	155
1970	50	153
1971	50	150
1972	40	141
Average(for cattle)	38	116

Intensive management of the allotment was tried starting in 1965. At that time a four pasture rest-rotation system was put into effect based on the permittee hauling water. This system never really worked because of the water hauling requirement and some fences not being built. As a result secondary range was little used while primary range was overused. Also, the black grass bug came into epidemic proportions in the crested wheatgrass reseeded areas in the draw bottoms.

#### B. Description

The allotment varies in elevation from 6800' to 8600'. Topography is flat to rolling in the draw bottoms to steep and rocky in the uplands.

Soils are derived mainly from parent sedimentary material of the Wahweep formation. They are very shallow on the uplands and deep in the draw bottoms. These soils vary in texture from heavy clays to rocky outcrops. Erodibility index is high.

Vegetative types consist of various native grasses, pinon-juniper and oakbrush on the uplands with crested wheatgrass in the draw bottoms and bench areas.

Precipitation occurs as snow in the winter and rain during the summer months. Precipitation averages 16" per year. Summer rains occur as thunderstorms and are of short, intense duration.

C. Summary of Range Allotment Analysis

Allotment analysis was completed in 1964. Following is a summary by pastures of acreages in various suitability and condition classes.

Lower Pasture (#1)

Condition Class	Acres by Suitability Classes and Vegetal Types				
	Suitable (Used)	Suitable ( <del>205</del> Used)	Total Suitable	Unsuitable	Non Range
Excellent	--	--	--	--	--
Good	--	--	--	--	--
Fair	?	515	515	--	--
Poor	--	--	--	--	--
Non-Range	--	--	--	--	327
Total	--	515	515	--	327

Reseeded: 515 acres.

Upper Pasture (#2)

Condition Class	Acres by Suitability Classes and Vegetal Types				
	Suitable (Used)	Suitable (Not Used)	Total Suitable	Unsuitable	Non-range
Excellent	--	--	--	--	--
Good	451	--	45	--	--
Fair	185	90	275	--	--
Poor	300	--	300	--	--
Non-range	--	--	--	--	721
Unsuitable	--	--	--	617	--
Total	530	90	620	617	721

Reseeded: 230 acres.

Total Both Pastures			
Condition Class	Suitable (Used)	Suitable (Not Used)	Total
Excellent	--	--	--
Good	45	--	45
Fair	185	605	790
Poor	300	--	300
Non-range	--	--	1048
Unsuitable	--	--	617
Total	530	605	2800

Reseeded Total: 745 acres.

D. Estimated Grazing Capacity

An average of 46 head of livestock for 140 AUM's have grazed the allotment since 1964. Although the trend on the primary range has been down somewhat the R4-2200-15's (see District office file) indicate the 140 AUM's are not excessive if use is made of the secondary range by hauling water. It is believed the allotment will carry the present committed livestock and still leave adequate forage available for wildlife and watershed protection.

E. Present Management

The allotment is being grazed on a two pasture rest-rotation system. This two pasture system was put into effect in 1972 and appeared to work well. Only one pasture is grazed each year. When proper utilization is reached the cattle are taken off the allotment.

The upper pasture has a good water source while the lower pasture has a poor source and requires hauling in drier years. Management to date has been hampered by the lack of water developments. Water is being developed as rapidly as possible and in time will solve some of the problems associated with poor livestock distribution.

F. Present Permittee and Livestock Obligations

The one permittee, Mr. Edgar Dunham, of Tropic, Utah, is primarily engaged in cow-calf operations. To sustain his livelihood he works

part-time for the National Park Service during the summer months. He owns 84 acres of commensurate and dependent property classified as 54 acres cultivated and 30 acres of summer range. In addition he has a cattle permit on BLM lands for 40 head.

The following table shows the present permitted number and season of use on National Forest land.

Term Permit Number	Temporary Permit Number	Season
26	--	6/16-8/31
--	26	6/1 -6/15
--	24	6/1 -8/31

The temporary permit is based on the permittee hauling water, resting one unit every year and assuming maintenance responsibilities on fences.

Last year the permittee grazed 40 head from 6/16 to 9/30. Normally the season would have ended on 8/31, but it was extended due to increased forage after the early fall rains. The 40 head number was requested by the permittee due to fluctuations in the cattle market. Normally he grazes 50 head, 24 of which are a temporary permit.

The allotment will support 50 head for three months providing they are taken off when proper use is reached each year. The 65 AUM's permitted on the term portion of the permit are proper and the permittee would usually get the full use of the AUM's each year even though some years proper use would be reached early. The June 1 opening date on the temporary permit is adequate as well as the June 16 date on the term permit.

## II. MANAGEMENT GOALS

- A. Utilize forage on a sustained yield basis through proper management.
- B. Maintain plant vigor and increase soil stability.
- C. Continue to develop water in the lower pasture to better utilize forage.
- D. Construct crossing across the deep drainage in the lower pasture to improve access to secondary range.

- E. Remove livestock from allotment when proper utilization is reached.
- F. Place salt away from water and at locations where it will do the most good.
- G. Take effects of the black grass bug into consideration when establishing proper use on the allotment.

The major problems on the allotment to date have been the lack of water in the lower pasture and the black grass bug on the reseeded areas. Also, the permittee, in the past, has complained that the Forest Service did not allow him all of the AUM's that he was entitled to. The AUM problem was resolved last grazing season and since then the permittee has been very cooperative. To solve the water problem additional ponds were constructed in the lower pasture. The black grass bug has seriously reduced the production and vigor of the crested wheatgrass in the bottoms; however, the mixed composition on the ridges are very good. Hopefully the insect in time will become endemic. With help shown by the entomologist, Dr. Haws, the insect life cycle and how it pertains to control is being studied.

### III. ACTION PROGRAM FOR THE ALLOTMENT

#### A. Management System

A modified rest-rotation system involving two pastures will be followed. Rest-rotation grazing is defined as:

"An intensive system of range management whereby grazing is deferred on various parts of the range during succeeding years, and allowing for periodic complete rest."

Rest-rotation grazing on the allotment consists of a two pasture system. One pasture will be rested each year. Pastures will be alternated in their sequence of use.

This system does not consider utilization percent altogether as the prime criteria for grazing, but rather the physiological factors of the vegetation. The system is designed to attain proper use while maintaining a dense stand of desirable, healthy and vigorous plants.

Following is the planned sequence of use:

Year	Pasture	
	#1 - Lower Pasture	#2 - Upper Pasture
1973	Rest *	A
1974	A	Rest *

A - Graze from 6/1 until proper use is reached.

R - Rest for seedling establishment, restore plant vigor and provide for litter accumulation.

\*On some good seed years the cattle may be put in the pasture the last 30 days of the grazing season to tromp in seed.

B. To help make the rest rotation system work it will be necessary for the permittee to haul water and maintain fences. The Forest Service will construct other ponds in the lower pasture as needed and provide stock access at the head of the deep draws in the lower pasture.

C. Development System

1. Existing Improvements\*

Project Name	Type of Improvement	Size	Location	When Completed	Maintained By
Sheep Creek	Reseeding	300 acres	Sheep Creek	1959	
Soil and Water Project	P-J removal and reseeded	429 acres	Sheep Flat	1959	
Boundary Fence	Wire Fence	5.5 miles	F.S. Boundary	1960	Permittee
Soil and Water Project	Check Dams (Stock Water Ponds)	--	Scattered over allotment	1959-1960	Forest Service
Twelve Stock Water Ponds	Reservoir	--	Sec. 36 (Outside National Forest)		Forest Service
600 gallon tank & 4 metal troughs			Sec. 30		Forest Service
Pipeline by another permittee (Clement Johnson) established for irrigation	Water system for pond in Sec. 36		Short Canyon to N.F. Bdry.		

\*There is a short stretch of fence in the upper pasture that serves no beneficial use under the present management system. It is planned for removal during the coming grazing season.

2. Proposed Improvements

A crossing for livestock is needed across the deep drainage in the lower pasture in the northeast corner of section 30. The south end of the pasture division fence (next to Forest boundary) needs a minor change so that the lower pasture will always have water. The improvement work will be done as funds become available. Hopefully this work can be completed in 1973.

#### IV. CORRELATION WITH OTHER USES

Management of this allotment will correlate grazing with other uses as outlined in the Regional Multiple Use Management Guide and the District Ranger Multiple Use Plan.

The allotment is entirely within the Lower and Intermediate Zones.

##### A. Lower Zone

1. Recreation - No improved recreation sites or proposed sites exist within the allotment.
2. Timber - No commercial timber exists within the allotment.
3. Watershed - The watershed aspect on this allotment dominates all other activities. Ground cover must be preserved to insure adequate hydrological conditions. It is important that after grazing each pasture that adequate cover remains in either residual vegetation and/or litter. Force feeding of the grasses will be allowed only when adequate ground cover exists.
4. Wildlife - Forage, especially browse species, has been allowed for big game use on the allotment. Less than 50% of the available forage will be used by the livestock. The remainder of the forage is available for big game use. The allotment is part of a key year-long range for deer. Past records indicate less than 35% of browse has been utilized by wildlife, consequently leaving the browse healthy and vigorous. A wildlife enclosure and transect are located in the lower pasture.

##### B. Intermediate Zone

Only a small portion of intermediate zone exists within the allotment. All of this zone is classified as unsuitable, non-used range.

#### V. ADMINISTRATIVE PROBLEMS

The management system is functioning adequately. The flexibility in management (because of the temporary permit) provides an opportunity to change season and numbers if conditions warrant.

Permittee cooperation is necessary to establish a management plan and put the grazing system into action and to follow it through. On-the-ground contacts should be made with the permittee to iron out any difficulties in the management system.

## VI. ALTERNATIVES

All grazing sequences are subject to change depending on vegetation and soil conditions, financing (or not) of structural improvements, and needs and desires of permittees, as well as unforeseen circumstances. The grazing system as described in this plan allows for flexibility that is essential for good results.

## VII. ALLOTMENT INSPECTIONS

### A. Bench Marks

The following studies will be made on each key area:

1. Range Readiness Checks - A check on vegetative readiness will be made each spring on the pasture to be grazed first. Crested wheatgrass should be in the third leaf or boot stage or about 6" in leaf lengths before being grazed.
2. Unit Inspection Record (R4-2200-15) - Inspection of the allotment will be recorded on the 2200-15. Inspections will be made before entering a pasture, as the pasture is grazed and after grazing. Cattle will be taken off the allotment when proper use has been reached.
3. Photo Points - To establish trend on the allotment photo points will be located in each pasture. Photos should be taken at pre-established intervals (every two years) so that a record will be had of long range trend.

### B. Checks on Livestock Numbers

All livestock using this allotment will be counted prior to entering the allotment. Periodic checks will be made to determine if the livestock are grazing the proper pasture.

## VIII. MAINTENANCE AND REVISION OF PLAN

This plan should be maintained annually. All changes and corrections needed should be incorporated into the plan by pen-and-ink notation. If there are changes in goals or major program alterations needed then the entire plan should be revised.