

MANAGEMENT PLAN  
PINE CREEK C&H ALLOTMENT  
Escalante Ranger District  
Dixie National Forest

Plan Prepared by Phil Bayles 4/15/71

Updated by: Don Baird Date 12/21/77  
Range Conservationist

Recommend Approval: Charles B. Bluminger Date 12/21/77  
District Ranger

Recommend Approval: Frank Jensen Date 12/23/77  
Chief, Branch of Range Management

Approved by: Julius J. Bishop Date 12/23/77  
Forest Supervisor

## I. INFORMATION

### A. History

This Allotment was subject to heavy sheep and cattle grazing prior to the establishment of the National Forest in 1905. This heavy use resulted in considerable range and watershed deterioration. Little effort was made by the users to regulate livestock use. Much of the Allotment was grazed on a first come-first served basis.

After the establishment of the National Forest, attempts were made to control the season and numbers of livestock using the area. Local people were hired as land administrators. However, implementation of improved range management practices came slowly. It is believed that large numbers of trespass livestock grazed the area in addition to the permitted stock.

Old maps and records show that most of the present allotment was once sheep allotments. Some of the S&G Allotments were East and West Jacob's, Blue Springs, Rogers Peak, the Box, Hungry Creek, Lake Philo, Roundy Reservoir and Cyclone Lake.

In addition cattle were permitted under common use arrangements on the old Pine Creek Allotment and in the Hungry Creek-Roundy Reservoir Allotment.

The present allotment was arrived at in 1971 when an agreement was signed by the permittees on this Allotment and several other allotments to realign boundaries and shift livestock, so as to make management possible.

With the additions and deletions actual use figures are very hard to determine prior to 1940. However, it appears that up to 4500 head of sheep and 800 head of cattle used the present allotment in common until the early 1950's. In 1964 the last sheep allotment on Rogers Peak was converted to cattle and common use was eliminated.

In addition to the livestock from the Escalante side of the mountain there was considerable cattle drift from the Wayne County area. The drift was slowly brought under control with the construction of various fences. It was eliminated in the early 1960's when a division fence was constructed between the Dark Valley and Pine Creek Allotments.

### B. Current Permits

At present all permittees are engaged in cow-calf operations. The permittees are as follows:

PERMITTEE	NO. OF CATTLE	SEASON	AUM'S
John, Margaret & David Townsend	592	6/16-9/30	2072
Hyrum Coleman	22	" "	77
Klyn Haws	102	" "	357
	5 horses	" "	18
Arthur Lyman	<u>98</u>	" "	<u>343</u>
Total	819		2867

All of the permittees except Hyrum Coleman hold BLM grazing licenses for approximately the same numbers of animals as grazed on the Forest. The BLM grazing allotments are generally isolated from the Forest. The BLM Allotments are winter range. Because of the distance between allotments a joint management plan is not being considered. The closing and opening dates for using the BLM licenses correspond with opening and closing dates on the Allotment. Hyrum Coleman keeps his cattle and Dee Haws keeps his horses on private land when they are not using the Forest Allotment.

### C. Range Analysis

The range analysis was completed during the summer of 1963. Several trend and site studies have been rerun since that time. Following is a summary of present range condition:

<u>Suitability</u>	<u>Acres</u>
Suitable Rangeland	20695
Unsuitable (Heavy timber stands, etc.)	20154
Nonrange (Rock outcrops, etc.)	8169
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Total Allotment Acres	49018
<u>Conditions of suitable range</u>	<u>Acres</u>
Fair	7938
Poor	<u>12757</u>
Total	20695

Trend studies ran prior to 1977 show the condition of the range has improved over the last 20 years. It is believed that a static or upward trend continues on most of the Allotment.

D. Grazing Capacity

The range analysis in 1963 showed the Allotment to be over obligated. Since that time there has been an 844 acre chaining project completed in the Skull Spring area, several water developments installed and fences have been built to aid in controlling the livestock. Also, in 1971 a shift was made in some livestock. An opportunity has not existed yet to evaluate the capacity of the Allotment with the new improvements in place. It is hoped the Allotment can carry the present obligation. Evaluations over the next five years will determine what the actual capacity is.

E. Present Management

At present a deferred-rotation grazing system is used on the Allotment. The cattle enter one side at the beginning of the grazing season and are moved onto the other side as proper use is reached. This sequence is reversed the next year. Until 1977 the system did not work because some of the fences were not installed. Also, Skull Spring chaining had not come into production.

F. Existing Improvements

Except for one water development the improvements are in good condition as they have been built or reconstructed within the last five years. The permittees have maintenance responsibility for the improvements. An adequate job has been accomplished in maintaining the improvements each year before the cattle have been placed on the Allotment.

The existing improvements are as follows:

<u>NAME</u>	<u>SIZE AND TYPE</u>	<u>LOCATION</u>
*1. Rogers Peak Fence	4 strand barbed wire 0.2 mile long	Across Hell's Backbone to Sand Creek Drainage Sec. 32, T32S, R3E.
2. Roundy-Jacobs Division Fence	3 strand barbed wire 1.0 mile long	From Escalante-Teasdale division fence south in Sections 1&12, T32S, R2E.
3. Davis Flat-Coyote Hollow Division Fence	Net wire 4.5 miles and 3 strand barbed wire 3 miles	From Lake Philo south past Cyclone Lake then onto the rim overlooking Posy Lake.

\*Numbers correspond to the Allotment map.

<u>NAME</u>	<u>SIZE AND TYPE</u>	<u>LOCATION</u>
4. Buck Hollow-Dry Lake Fence	Two sections one mile 3 strand barbed wire, 0.2 mile log fence	From Buck Hollow to John Allen Bottom trail.
5. Lost Creek Fence	3 strand barbed wire, 0.1 mile	Across Lost Creek in Sec. 27, T33S, R2E.
6. Black Hills Fence	4 strand barbed wire, 1.0 mile	On Forest Boundary in Section 14, T34S, R2E.
7. Deep Creek Fence	4 strand barbed wire, 3 miles	Easterly across Posy Lake and Hell's Backbone Road and across Deep Creek in Sec. 22&23, T33S, R2E.
8. Jacobs Valley-Boulder Swale Division Fence	3 strand barbed wire, 1 mile	From Escalante-Teasdale division fence south in Section 4, T32S, R3E.
9. Rogers Peak Trough	Headbox, pipe and trough	IN NW corner section 7, T33S, R3E.
10. Skull Spring Trough	Headbox, pipe and trough	In center of section 34, T33S, R2E.
11. <i>BLACK Ridge</i>	<i>Pipe + Trough</i>	<i>In SW corner section 11, T. 34S., R. 2 E.</i>

## II. MANAGEMENT GOALS

Management goals for the Allotment are:

- a. Provide for soil stability and physiological needs of the forage plants.
- b. Provide ample forage for an increased number of mule deer and elk.
- c. Provide for maintaining livestock AUM's at present numbers if possible.
- d. Help provide for a stable economic base in Escalante by providing livestock forage on this allotment.

### III. ANALYSIS

#### A. Relationship of Permits to Permittee's Operation

The cattle spend 3.5 months on the Forest. Approximately one week in the spring and again in the fall is spent on private land going to and coming from the Allotment. Here the cattle are "worked" prior to going to either the Forest Allotment or BLM ranges. The cattle spend the rest of the time on BLM ranges.

The Forest permits are vital to each operation. There are no alternate sources of feed available in this area which could replace the Forest permits. Because of the type of range on BLM lands a loss of the Forest permit would result in excess of a 50 percent reduction in each operation.

#### B. Management Options

Season long grazing was once practiced on the Allotment. It was not acceptable. Therefore, some type of rotational grazing system is necessary.

A rest-rotation system could be worked out. This would require approximately 10 miles of additional fence. A water shortage would exist in some unit if all the cattle were placed there at once. There is also an elevational difference which would cause problems with range readiness. Additionally, some existing fences might have to be removed. This system would be rather expensive.

Therefore, the deferred-rotation grazing system will be continued.

### IV. ACTION

#### A. Management System

A deferred-rotation grazing system will be continued on the Allotment. The Allotment is split into three units. These are the east half, west half and Skull Spring reseeding. The Skull Spring reseeding will be used as a gathering unit the last few weeks of the season. The other two units will be grazed alternately each year. The cattle will be moved to the second unit when proper use is reached on the unit grazed first. The cattle will remain in the second unit until proper use is about to be reached. At that time the gates into the Skull Spring reseeding will be opened and the cattle drifted into it. When proper use has been reached on the reseeding the cattle will be removed from the Forest.

The grazing schedule is as follows:

<u>Year</u>	<u>East Half</u>	<u>West Half</u>	<u>Skull Spring</u>
1	A	B	C
2	B	A	C

(Repeat Cycle)

A = Graze first - Range readiness, until proper use is reached.

B = Graze second - Near seed ripe, until proper use is reached.

C = Graze third - Gather cattle here last few weeks of season - graze until proper use is reached then remove cattle from the Forest.

#### B. Proper Use Criteria

Section 1.22 of the Grazing Management Guide of the Forest Service, Region 4 gives direction to grazing system models. One of the options is for the proper use model as expressed in the key area--key species approach to management. The guide points out that except for rest-rotation grazing systems the proper-use model will be used.

The guide also points out that under the proper-use model, utilization should not exceed 40 to 50 percent of the current year's growth of the species being managed for. The R-4 Range Environmental Analysis Handbook, section 61.5 defines 50 percent utilization and over as heavy use, 30 to 40 percent use as moderate and up to 20 percent use as light on proper use type management systems.

To comply with Forest Service regional direction a proper use factor of 50 percent will be used for the key species on the open grasslands and reseedings. Species vary with elevation. Therefore, they will be identified according to elevation zones as follows:

##### Lower Zone (Skull Springs Reseeding)

This zone is comprised mainly of the Skull Spring reseeding. The key species will be crested wheatgrass and Russian wildrye.

##### Middle Zone

This area is the ponderosa pine and aspen stands with open parks. It is below the Aquarius Plateau rim. The key species are bluegrasses (Poaspp.), stipa (Stipa lettermanii, Mountain muhly (Muhlenbergia Montana), and squirrel-tail (Sitanion spp.) Other palatable grasses may also be considered key species.

### Aquarius Plateau Zone

This area is characterized by large open grasslands where sheep fescue (*Festuca ovina*) is the key species.

#### C. Administrative Action to Implement Program

The District Ranger or Range Conservationist will check the Allotment periodically during the grazing season. They will make utilization and followup studies and note the progress of the cattle in the system. They will inform the Allotment President (or alternate) when the unit is nearing proper use and when the cattle are to move to the next unit.

The permittees will need to have riders available to properly move and distribute the cattle. The permittees will also need to place salt in proper locations and perform needed maintenance of fences and water developments.

#### D. Development Program

There are several developments needed to bring the Allotment under the planned management system. Following are the projects by order of priority:

<u>Development</u>	<u>Type and Size</u>	<u>Location</u>
<i>done</i> Deep Creek Fence	A 3 strand barbed wire fence with wood stays. 1 mile.	From the existing fence across the Hells Backbone Road east in Sec. 22&23, T33E, R2W.
<i>done 1985</i> Black Hills Water Development	trough and approximately 1000 feet of pipe	from the Town of Escalante waterline east in Sec. 14 T34S, R2E.
Black Hills fence	A 3 strand barbed wire fence. 0.5 mile	From the east end of the existing fence on the Forest boundary east in Sec. 13&14, T34S, R2E.
<i>done</i> Roger Peak Water Development	Headbox, pipeline and trough	This is rebuilding of item #9 in Section F of this plan.

West Fork Fence	3 strand barbed wire fence with wood stays. 0.5 mile	Across the West Fork of Pine Creek in Sec. 21, T32S, R2E.
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Willow Bottom Corral	A 5 pole corral with loading chute to hold 50 cattle.	In Sec. 2, T32S, R2E.
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#### V. MULTIPLE USE COORDINATION

This plan has been written to meet the objectives of the Land Use Plan for the Aquarius Planning Unit. The Allotment is covered by parts of four management areas and nine management units. The Land Use Plan specifically calls for "continue permitted livestock grazing at present level."

The coordination needs with grazing follow:

##### a. Recreation

The Posy Lake and Blue Spruce campgrounds are both within the Allotment. Both campgrounds as well as Posy Lake itself are fenced to keep livestock out. These fences should keep conflict at a minimum.

The Allotment is used lightly for horseback riding and backpacking. Pine Creek, which is one of the few suitable fishing streams on the Escalante Ranger District heads on the Allotment. This creek provides approximately five miles of good stream fishing. The cattle tend to utilize areas along this stream heavily. This conflict will be offset somewhat with the alternating pasture system. However, it cannot be avoided entirely if cattle are going to use the east side of the Allotment.

The Allotment is a favored place for bow hunters. Fairly heavy hunting use occurs during this hunt. Additionally, the area is heavily used during the regular deer hunt. The cattle are removed from the Allotment prior to the regular deer hunt so this eliminates most conflicts.

All improvement construction to date has been carried out with aesthetics in mind. Where fences cross roads they have been built from native materials in the immediately visible area. There should be little conflict between recreation use and grazing on the Allotment except as noted previously.

b. Watershed

There are many rock outcrops occurring on portions of the Allotment. These areas contribute heavy runoff during high intensity rainstorms. Some fairly large gullies exist which are actively cutting. As these gullies head on the rock outcrops little can be done to control them, other than try to have vegetation on the areas where there is soil.

As a rule the large grasslands and meadows on the Aquarius Plateau are in fair watershed condition. Several dams have been built which controls runoff in most drainages leading to Pine Creek.

The proposed grazing system should contribute to improving watershed conditions.

The Escalante Municipal Watershed is in the Hungry Creek drainage. At present cattle can graze freely around the springs. A plan has been approved to fence these springs to meet minimum state standards for water quality. This fencing should eliminate problems between these two uses.

c. Wildlife

This Allotment is within the South Boulder Deer Herd (#51b) Unit. There is a considerable amount of summer, spring and fall range, but only a limited amount of winter range on the Allotment. Deer numbers are fairly low at present. It is hoped their numbers will increase.

In December of 1976 93 elk were released on the Teasdale Ranger District near Wildcat Guard Station. Additionally, elk have been sighted in the North Creek area which is adjacent to the Allotment. It is expected that elk will move onto parts of this Allotment as their numbers increase. Elk could create a conflict on this allotment if they reach significant numbers. There is a question now as to whether there is sufficient capacity for the permitted cattle. Major competition from elk would probably require a reduction in permitted cattle. This potential conflict will have to be watched closely.

It is planned to fence Cyclone Lake and its shoreline for protection of waterfowl habitat. This will require a stock watering pond to be built outside the enclosure. The permittees have been informed of this project.

There are no species of rare or endangered animals known to use the Allotment, unless it were a migrating raptor. Peregrine falcons have been reported but not confirmed.

The needs of wildlife must be considered as a top priority on this Allotment. Developments will be constructed to provide for wildlife needs. It is felt the planned grazing system will aid in improving habitat by providing increased amounts of food and cover.

d. Timber

There are no planned timber sales within the Allotment area in the next five years. There are some quantities of timber available. It should be expected that some small salvage sales could arise. This should create no conflicts with the cattle.

There are no plantations which require protection from grazing.

The only problem foreseen with timber will be the planned upgrading of the Hell's Backbone loop road. This road will facilitate hauling timber from the New Home Bench area. Construction could start on this by 1978. Some problems in moving cattle along the road can be expected during construction. Additionally, when construction is going on in the Rogers Peak area cattle will probably move out. This is expected to be only a temporary problem. When the construction is completed things should return to about what they are now.

VI. FOLLOWUP

Photo point studies exist on both the east and west units. These studies are of staked plots or 3-step trend studies and with a corresponding site analysis used to determine trend. It is planned to rerun the studies once every six years on the year the pasture is grazed second. A bench mark will need to be established in the Skull Spring reseeding.

In addition to the trend studies, Form R4-2200-15, "Unit Examination Record" and utilization studies should be completed yearly in each pasture. The use of these records should give adequate information to determine if the system is working properly.

The existing photo points are as follows:

<u>Unit</u>	<u>Name</u>	<u>Type of Study</u>	<u>Established</u>
East	Roger Peak #1	10 photo points	2 Aug. 1943 reread 1974
East	Blue Spring	10 photo points	6 Aug. 1943 reread 1973

East	Jacobs Lake	3-Step	8/4/54 reread 1966
West	Roundy Spring	3-Step	7/22/52
West	Davis Flat	10 photo points	4 Aug. 1943

VII. CHECK ON LIVESTOCK NUMBERS

All livestock using the Allotment will either be counted, dye branded, or ear tagged annually, to maintain control of numbers. Unscheduled checks for unauthorized animals will be made.