

ALLOTMENT MANAGEMENT PLAN

Hillsdale Cattle Allotment

Powell Ranger District, Dixie National Forest, Region 4

Plan Updated By: Donald G. Young Date: 1/15/75

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ACTING FOREST SUPERVISOR

I. GENERAL INFORMATION

A. History and Past Use

The Hillsdale Allotment area has been grazed by livestock since shortly after the area was settled in 1866. Both sheep and cattle grazed the area in common until 1943 when the sheep were eliminated.

Until 1920 the Hillsdale Allotment was a separate allotment. In 1920 it was combined with the Proctor Canyon Allotment to form the Hatch-Hillsdale Allotment. In 1964 the Hillsdale Allotment was again separated and has been known as the Hillsdale Allotment since that time.

The Wilson family has had a permit on the Hillsdale Allotment for 22 head of cattle since prior to 1943 and most of the use made of the area now in the allotment has been by their cattle.

In 1923, 189 head of cattle were permitted on the Hatch-Hillsdale Allotment, along with 800 sheep. In 1933, 133 head of cattle and 800 head of sheep were permitted. By 1943 the sheep had been eliminated and 143 head of cattle were permitted on the Hatch-Hillsdale Allotment with a season from June 1 until October 15. In 1956 the grazing season was reduced to June 1 - September 15. In 1964 the permitted number was still 143 cattle with a June 1 - September 15 grazing season. Since 1964 the permitted number on the Hillsdale Allotment has been 22 head of cattle with a June 1 - September 15 grazing season.

The following table shows use of the allotment by cattle since 1943:

Year	Permitted to Graze		Authorized Non-Use		Actually Grazed	
	L.S.	AUM's	L.S.	AUM's	L.S.	AUM's
1943	143	643	14	63	129	548
1944	143	643	6	27	130	575
1945	143	643	16	72	121	504
1946	143	643	0	0	138	621
1947	143	643	0	0	138	621
1948	143	643	0	0	112	504
1949	143	643	0	0	132	555
1950	143	643	0	0	143	572
1951	130	503	13	140	130	497
1952	143	643	0	0	143	493
1953	143	644	0	0	135	400
1954	143	644	0	0	132	363

Year	Permitted to Graze		Authorized Non-Use		Actually Grazed	
	L.S.	AUM's	L.S.	AUM's	L.S.	AUM's
1955	136	568	7	76	136	504
1956	120	363	0	0	120	363
1957	61	213	82	347	61	213
1958	108	377	35	122	89	282
1959	83	254	0	0	83	254
1960	98	341	0	0	97	276
1961	119	376	18	63	119	376
1962	143	499	0	0	135	470
1963	143	499	0	0	134	463
1964	143	499	0	0	134	333
1965	22	77	22	77	0	0
1966	22	77	0	0	22	77
1967	22	77	22	77	0	0
1968	22	77	0	0	22	70
1969	22	77	11	38	11	19
1970	22	77	9	31	13	46
1971	22	77	0	0	22	77
1972	22	77	0	0	22	92
1973	22	77	0	0	22	77
1974	22	77	6	21	16	56

#### B. Past Management

Management on the Hillsdale Allotment was never intensive. Early plans did not guarantee periodic rest on all, or a portion, of the allotment, consequently nonuse was encouraged to relieve pressure on the allotment.

When the allotment was a part of the Hatch-Hillsdale Allotment a deferred rotation grazing system was tried in which the cattle grazed different units at different times of the season. This system did not work because the allotment was overstocked and the areas were seriously overgrazed when they were used.

The Burrows, Granger-Thye, pasture was developed in 1956-57 to relieve grazing pressure on the Hatch-Hillsdale Allotment. This program was not successful.

#### C. Summary of Range Allotment Analysis

Range Allotment Analysis was completed in 1963 when it was a part of the Hatch-Hillsdale Allotment. The following table

shows allotment acreages by pastures, by trend, suitability and condition class:

## NORTH PASTURE

Condition Class and Trend	Acres by Suitability Classes and Condition Classes					
	Suitable (Used)	Suitable (Not Used)	Total Suitable	Unsuitable (Used)	Unsuitable (Not Used)	Non Range
Poor	-	133	133	-	-	-
Very Poor	-	-	-	-	-	-
U,N, and Non Range	-	-	-	8	1212	396
Total	-	133	133	8	1212	396

Total pasture acreage - 1749

## MIDDLE PASTURE

Condition Class and Trend	Acres by Suitability Classes and Condition Classes					
	Suitable (Used)	Suitable (Not Used)	Total Suitable	Unsuitable (Used)	Unsuitable (Not Used)	Non Range
Poor	113	-	113	-	-	-
Very Poor	43	-	43	-	-	-
U,N, and Non Range	-	-	-	53	730	2160
Total	156	-	156	53	730	2160

Total pasture acreage - 3099

## SOUTH PASTURE

Condition Class and Trend	Acres by Suitability Classes and Condition Classes					
	Suitable (Used)	Suitable (Not Used)	Total Suitable	Unsuitable (Used)	Unsuitable (Not Used)	Non Range
Poor	-	-	-	-	-	-
Very Poor	165*	-	165	-	-	-
U,N, and Non Range	-	-	-	-	621	-
Total	165	-	165	-	621	-

\*31 acres reseeded in 1973 now is productive range.

Total pasture acreage - 786

TOTAL ALL PASTURES (Acres)*			
Condition Class	Suitable (Used)	Suitable (Not Used)	Total
Poor	113	133	246
Very Poor	208	-	208
U,N, and Non Range	-	-	5180
Private	-	-	279
Total	321	133	5913

\*In 1970 nine hundred ninety acres were added to the north end of the allotment. This area was a portion of the Pines Cattle Allotment and was closed to all grazing because of its isolated location. Much of the area was classed as suitable range, however, no write-ups were made for the area. In this management plan only 133 acres on the bottoms, in the sagebrush-grass type, are considered as secondary range. Plans are to make water available to convert these areas to primary range in 1975.

#### D. Grazing Capacity

##### 1. Estimated (Current)

The following table shows acres of suitable range (including secondary) and the estimated grazing capacities, without developments, for each pasture:

	PASTURES		
	1-North	2-Middle	3-South
Acres	133 (Secondary Range)	156	165
AM	10	40	10

Total AM - 60

##### 2. Potential

The table below shows the increase in grazing capacity of the allotment based on the 31 acres reseeded in the south pasture, and the water developed in the south pasture. The north pasture will have water developed in 1975.

	PASTURES		
	1-North	2-Middle	3-South
Acres	133	156	165
AM	40	40	45

Total Potential AM - 125

After development the allotment carrying capacity would increase from 60 AM to 125 AM. The 125 animal months should take care of the 22 permitted head for a three and one-half month season.

E. Present Permittee and Livestock Obligations

Calvin and Jesse Wilson are the only permittees on the allotment. They are engaged in a cow-calf operation and use the allotment to help round out their operations. Between them they own 584 acres of land. Some 279 acres of this is inside the National Forest intermingled with the allotment. Their private land, if it were developed, has the capability of producing much more feed than is presently available.

The permittees share a permit for 18 head of cattle. Calvin Wilson has a permit for four head of cattle. They have no other permits on the National Forest. They have no license to graze on National Resource (BLM).

The present obligation on the Hillsdale Allotment is 22 head of cattle with a season of use from June 1 to September 15, or 77 animal months.

II. MANAGEMENT GOALS

- A. Utilize forage on a sustained yield basis through proper management.
- B. Maintain plant vigor and increase soil stability.
- C. Complete water developments on the north end of the allotment in 1975.

- D. Construct short fences in 1975 in Sections 9 and 17 to prevent any drift that could occur between pastures.
- E. Place salt away from water where it will do the most good.
- F. Graze allotment with the maximum number of livestock that site conditions will sustain.
- G. Commence grazing south pasture in 1977 or sooner if reseeding becomes well established.
- H. Allow enough flexibility in this plan and on-the-ground to effectively manage the allotment.

### III. ACTION PROGRAM FOR THE ALLOTMENT

#### A. Management System

The planned system on the allotment is to graze 22 cattle as follows:

Year	PASTURE		
	1-North	2-Middle	3-South
1977	B	C	A
81 1978	A	C	B
1979	(Repeat Cycle)		

A - Graze at range readiness. 6/1 - 7/15\*

6/1 to 7/20

B - Graze at seed ripe. 7/15 - 8/15

7/21 to 8/30

C - Graze after seed ripe each year. 8/15 - 9/15

9/1 to 9/30

\*All dates are tentative. On some dry years it may be necessary to move cattle earlier than dates indicated.

22 head from 6/1 to 9/30

B. Existing Range Developments1. Structural

Name	Type of Improvement	Size	Location	Maintenance Responsibility
Nat'l Forest Bdry. Fence	4-strand barbed wire	4.75 Miles	Forest Bdry.	Forest Service
" " " "	4-strand barbed wire	.5 Miles	Forest Bdry. Sec. 4	Forest Service
Johnson Pipeline and Ponds (3)	Plastic pipeline and 1 pond and trough on line, plus 2 other ponds	1000' of 1-1/4" 4000' of 1"	Sections 16 and 17	Permittee

2. Non-Structural

Name	Type of Improvement	Size	Location	Year Completed
Hillsdale Reveg.	Reseeding	31 Acres	Mouth of Johnson Canyon	Fall-1973

C. Proposed Range Developments

Type	Location	Size	Cost Estimate
Spring, pipeline, and ponds (4)	North Pasture Sec's 4,5,&9	2 miles of plastic pipe	\$3000
Fences	Sections 9, 16 and 17	3-wire (barbed) .5 miles	\$700

#### IV. CORRELATION WITH OTHER USES

The Hillsdale Allotment lies within the Intermediate and Lower Zones. The portion of the allotment within the Intermediate Zone is all classified as unsuitable range. All proposed development work will be accomplished in the Lower Zone. All required coordination will pertain to the Lower Zone.

- A. Range - The allotment is presently in fair range condition. Initiation of the proposed plan based on a three pasture deferred rotation system will improve and maintain range productivity.
- B. Timber - There is a sizeable amount of commercial timber on the allotment. Most of it is ponderosa pine. A timber sale is planned for the area in 1976. Estimated volume to be cut is 1000 MBF. Most of the commercial timber producing areas were classed as non-range when the allotment analysis was completed.

Some system roads are planned to transport commercial timber. These roads will improve access to the allotment.

- C. Wildlife - Mule deer is the principal wildlife species using the allotment area. Generally they use the area in the spring and fall. Browse species are abundant on the unsuitable areas within the allotment. Browse seed was included in the seed mix for the reseeding completed in 1973. Hopefully this will provide additional forage for deer.

The completed development work, as well as proposed work, is beneficial to wildlife. The pond and trough in Johnson Canyon show continued use by deer, birds and other wildlife.

- D. Watershed - The allotment is generally in poor watershed condition. Overland flow from the steeper slopes is common and some gullies have formed on the suitable range. Little resistance to the overland flow is offered by the existing low shrubs and sparse grass cover on the suitable range. Soil loss is evident. The recently completed range reveg. program and deferred rotation system will restore groundcover and maintain it at a level that will reduce soil erosion and improve watershed conditions.

#### V. ADMINISTRATIVE PROBLEMS

There are no serious problems on the allotment. The two permittees are cooperative and are interested in planning and management. Like most permittees they have to be encouraged to maintain fences and what

have you. As range developments increase on the allotment there will have to be continued emphasis that the permittees have maintenance responsibilities.

#### VI. ALTERNATIVES

- A. Continue to graze the allotment as is without any development work. This is the way the allotment has been grazed for several years. There is no rest on any pasture. Water would not be developed in the north pasture. This alternative would do nothing to better range conditions on the allotment.
- B. Work out a pasture rotation system including Johnson Canyon as a "late" pasture. This alternative would mean early grazing of the 22 head of permitted Johnson cattle on the Hillsdale Allotment. Forty-four head on Hillsdale would be more than the allotment could support. This would be increased to 48 head if four head of Leland Riggs' cattle were moved from the Hatch Allotment.

#### 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 pastures 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 as range conditions dictate.
3. Photo Points - To establish trend on the allotment photo points should be located in each pasture. Photos should be taken at pre-established intervals (every five years) so that a record will be had of long range trend.

##### B. Checks on Livestock Numbers

All livestock using this allotment will be dye branded and/or 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.