

PINES C&H ALLOTMENT

Allotment Management Plan

Powell Ranger District

Dixie National Forest

Region 4

Original Plan written by Ronald Wilson, Range Conservationist, on 12/14/66. Plan was approved by Jack B. Shumate, F.S., on 4/14/67.

Plan Updated By: Robert S. Hardner Date 2-11-77
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Plan Approved By: Walter H. Pearson Date 2/11/77
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Plan Approved By: Frank Jensen Date FEB 17 1977
ACTING FOREST SUPERVISOR

I. GENERAL INFORMATION

A. Description

The Pines C&H Allotment is located approximately 8 miles southeast of Panguitch, Utah, and includes portions of John L. Swale, Pat Willis Draw, Mud Spring Creek, Berry Spring Creek, Cabin Hollow, Corral Hollow and Casto Canyon Creek drainages.

The topography of the Pines C&H Allotment varies from flat to moderately rolling to very steep near the Casto Bluff area. Elevation varies from 7600 to 9700 feet. Approximate annual precipitation is from 14" to 23", with the higher elevation areas receiving the most precipitation.

The Pines C&H Allotment consists mainly of seven land types with their associated vegetative species and soil characteristics. These are: 1. Long, narrow dissected pediments and side slopes. Dominant vegetative species include black-sagebrush, big sagebrush, rabbitbrush, slender wheatgrass, Indian ricegrass, mutton bluegrass, with some pinyon and juniper. Main soils are loams, gravelly loams and gravelly sandy clay loams. 2. Small mesas with very steep side slopes: ponderosa pine, manzanita, black sagebrush, mountain mahogany, bitterbrush, scattered pinyon-juniper. Indian ricegrass, mutton bluegrass are the main vegetative species. Soils consist of gravelly loams and cobbly sandy loams. 3. Benches and toe slopes below mesa tops and rolling hills. Vegetative species include ponderosa pine, pinyon, juniper, black sage, big sage, bitterbrush, rabbitbrush, manzanita, Indian ricegrass, mutton bluegrass, and squirreltail. Gravelly loam is the main soil. 4. Gently sloping pediments. Black sagebrush, rabbitbrush, blue grama, mutton bluegrass, scattered juniper, big sagebrush and seeded grasses such as crested wheatgrass and smooth brome. Soils include loams, heavy loams and gravelly clay loams. 5. Steep, highly dissected slopes with numerous rock outcrops. These areas are used very little by livestock. 6. Long narrow flood plains and adjacent alluvial fans. Big sagebrush, rabbitbrush, sedges, western wheatgrass, blue grams, yarrow, bluegrass, Indian ricegrass and black sagebrush are the main vegetative species. Silt loams and silty clay loams are the main soils. 7. Pediment sideslopes. Vegetative species consist mainly of big sagebrush, rabbitbrush, slender wheatgrass, Indian ricegrass, cactus and some pinyon and juniper. Gravelly loam is the main soil.

A detailed soil map and description is contained in the Powell District Land Type Report.

The Pines C&H Allotment contains 28,470 acres of National Forest administered land. One hundred sixty acres of private land, known as the Reid Ranch, is within the allotment boundary. The

allotment is surrounded by private land, BLM land and other National Forest Service land. At present, six permittees graze 386 head of cattle from 6/1-10/10 for 1673 animal months.

II. HISTORY AND CURRENT STATUS

A. Past Use

Past use has varied considerably. The area was used in common by both sheep and cattle prior to 1946. The number of livestock that actually used the allotment is difficult to determine because of changed boundaries on the early allotments. However it is known that many large shepherds and some cattle used the area extensively from time of settlement until the area was put under Forest Service administration. Reduction in livestock numbers and seasons of use were made over the years to bring the use in line with range capacity.

From 1937 on sheep were no longer grazed on the allotment. In 1945 the grazing season was 5/16 to 10/31 for 369 head of cattle (1845 AUM's).

The allotment boundary was last changed in 1970. That part of the allotment (about 1000 acres) south of the Red Canyon entrance and north of Hillsdale Canyon was added to the Hillsdale Allotment.

B. Past Management

In 1949 and the early 1950's about 9600 acres of the suitable range was reseeded. This reseeded alleviated most of the poor range conditions. With the exception of the past six years the allotment has not been intensively managed. During the early stages of allotment development livestock were turned onto the range in the same place at the same time each year. This resulted in deteriorating range conditions on the preferred grazing areas.

In 1960 a deferred rotation system was initiated but it met with only limited success. From 1966 to 1971 a rest-rotation grazing system involving five pastures was used. Except for a balance of AUM's in each pasture and water hauling requirements, the system worked quite well. The grazing season was regularly extended to make use of excess available forage at the end of the season.

In 1972 the allotment was put under a three-pasture rest-rotation grazing system. This has proven to be a workable management system and will be continued as the basic system on the allotment.

In 1963 the permittees signed a memorandum of understanding and consequently took a voluntary reduction in numbers amounting to approximately 30% of their total preference of 386 head. During the 1966 to 1972 period these numbers were restored under temporary permit due to improved management.

In 1973 the temporary permits were made term which brought the preference back to 386 head of cattle. In 1976 the grazing season was extended from 6/1-9/30 to 6/1-10/10.

C. Ranch Operations

The present permittees are engaged in cow-calf operations and other business interests to help sustain their livelihood. Most of the cattle owned by the permittees use National Forest lands for summer grazing. The permittees with the largest permitted livestock number grazes on more than one allotment. All the permittees have spring and/or fall grazing permits on adjacent B.L.M. administered lands. The cattle are fed during the winter months on commensurate ranch property. Because of the close proximity of all lands grazed by the cattle, the livestock are driven, rather than trucked to the allotment.

The following table shows the present permittees and their permitted numbers and season of use:

<u>Permittees</u>	<u>F.S. Term Permit</u>			<u>BLM Licenses</u>	
	Number	Season	AUM's	Number	Season
Gary Orton	43	6/1-10/10	186	45 83	11/1-4/1 5/1-6/1 10/1-11/1
H. Frank Orton	78	6/1-10/10	338	70	5/1-6/1
Claude Hatch	94	6/1-10/10	407	60	5/1-6/1 10/15-12/15
Paul & Ken Partridge	126	6/1-10/10	547	40 120 80	5/1-5/31 10/15-11/15 12/1-4/30
Steele F. Henrie	45	6/1-10/10	195	40	10/11-12/1 5/1-6/1
Totals	386		1673		

III. RANGE CONDITION AND TREND

Range allotment analysis was completed in 1966. Considerable improvement in the forage resource has occurred through better range management systems and improvements. As a result, much of the original range analysis is now outdated. Following (by pastures) is the estimated acreages in the various suitability and condition classifications:

JOHN L. SWALE (PASTURE #1)

Condition Class	Acres by Suitability Classes						Trend
	Suitable	Secondary Range	Total	Unsuitable (Used)	Unsuitable (Not Used)	Non Range	
Good	2543	4332	6875	--	--	--	Static
Fair	0	565	565	--	--	--	Up
Poor	270	1387	1657	--	--	--	Up
U & 7	--	--	--	788	--	539	--
Total	2813	6284	9097	788	--	539	--

Reseeded: 5193 acres

BERRY SPRINGS (PASTURE #2)

Condition Class	Acres by Suitability Classes						Trend
	Suitable	Secondary Range	Total	Unsuitable (Used)	Unsuitable (Not Used)	Non Range	
Good	*1554	1910	3464	--	--	--	Static
Fair	0	623	623	--	--	--	Static & Up
Poor	589	116	705	--	--	--	Up
U & 7	--	--	--	203	--	1654	--
Total	2143	2649	4792	203	--	1654	

Reseeded: 1903 acres

* Includes 868 acres of secondary range which became primary range after developing Berry Springs.

CASTO-MUD (PASTURE #3)

Condition Class	Acres by Suitability Classes						Trend
	Suitable	Secondary Range	Total	Unsuitable (Used)	Unsuitable (Not Used)	Non Range	
Good	1120	1965	3085	--	--	--	Static
Fair	299	475	774	--	--	--	Static
Poor	482	0	482	--	--	--	Static & Up
U & 7				1305	990	4921	--
Total	1901	2440	4341	1305	990	4921	--

Reseeded: 2573 acres

TOTAL ALL PASTURES

Condition Class	Suitable	Secondary Range	Total	%
Good	5217	8207	13424	47
Fair	299	1663	1962	7
Poor	1341	1503	3143	11
U, 7 and Non Range	--	--	10400	35
Total	6857	11373	28630	

Reseeded: 9669 acres (53% of suitable acreage)

IV. ESTIMATED GRAZING CAPACITY

The following table shows the estimated grazing capacity of the suitable range based on a three pasture system:

Range Status	Estimated Grazing Capacity			
	Pastures			Total Acres
	#1 John L. Swale	#2 Berry Springs	#3 Casto-Mud Springs	
Primary	2813	2143	1901	6857
Secondary	6284	2649	2440	11,373*
AUM's	950	810	770	

Best estimates based on general observations and unit examination records in the past four years.

*Under the three pasture system initiated in 1972 there are 12,160 acres classified as secondary range. Much of this range is reseeded but lacked water when the allotment analysis was completed and therefore was classified as secondary.

Our records and observations indicate that the presently permitted 386 head of cattle and their calves can have a full forage supply for the 1673 permitted AUM's even on the low precipitation years and still meet the other multiple use requirements for the allotment. Therefore, the allotment is considered properly stocked.

V. MANAGEMENT GOALS

Management goals on the Pines C&H Allotment are to improve forage and watershed conditions on the preferred grazing areas on Mud Springs, Berry Springs Creek, and Pat Willis Draw; and to sustain forage and watershed conditions on areas currently in fair to good range conditions.

Specific management activities or interim management objectives to accomplish the above goals and objectives are as follows:

- * 1. Provide additional water in areas of the allotment that currently have little or no stock water available. Main areas include the southeast corner of the John L. Swale Pasture and the west side of Berry Springs Pasture.
- * 2. Provide a full forage supply for the permitted 386 head of cattle and their calves from 6/1-10/10 for 1673 AUM's.
- * 3. Work with the permittees to attain proper livestock distribution through proper salting, herding and maintenance of range improvements. Emphasize less use on areas such as the creek bottoms in Mud Springs, Berry Springs Creek and Pat Willis Draw.
- * 4. Provide adequate forage and cover for the antelope, deer and elk that inhabit the allotment.
- * 5. Construct check dams or basins below Casto Bluff in Sections 31 & 32, T34S, R4W, to help rehabilitate the active head cuts.
- * 6. Reconstruct ponds that are presently not usable.
7. Maintain the present 3-unit rest-rotation grazing system.
8. Maintain a permanent trend study on a key area within each unit of the allotment.

- * 9. Provide suitable habitat for the sagegrouse that inhabit the allotment.

VI. ACTION PROGRAM FOR THE ALLOTMENT

A. Management System

A three pasture rest-rotation system was started in 1972. In 1983 the John L. Swale unit was divided into two segments to better aid livestock distribution and forage utilization. Under the three pasture system two pastures will be grazed and one rested each year.

Following is the planned sequence of use:

PASTURES				
Year	#1		#2	#3
	North John L. Swale	South John L. Swale	Berry Springs	Casto-Mud
1	6/1 - 6/30	7/1 - 8/10	8/11 - 10/10	Rest
2	8/1 - 8/30	9/1 - 10/10	Rest	6/1 - 7/31
3	Rest	Rest	6/1 - 8/10	8/11 - 10/10
Repeat Cycle				

Treatments

Rest: No cattle grazing - exception: on drought years the rest pasture may be grazed the last part of the grazing season.

Graze at Range Readiness: 6/1-7/31 6/1-8/10

Graze at Seed Ripe: 8/1-10/10 8/11-10/10

These dates are tentative and may be changed due to vegetative conditions.

The system allows each pasture a minimum of one complete year of rest every three years. This will promote plant vigor, litter production, seedling establishment, and overall increase of forage production.

B. Range Development Program

Most of the basic developments on the allotment have been completed. However, since water (or the lack of it) is the limiting factor in getting good livestock distribution it is necessary to actively pursue this part of the development program. There are always additional opportunities to make improvements.

1. Existing Structural Improvements

Project Name	Type of Improvement	Size	Location	When Constructed	Maintained By
Forest Boundary Fence	Fence Std. (4 wire)	8 miles	T35S, R4W	1956	F.S.
East Pines C&H, Pines C&H Allotment Divi- sion Fence	Fence Std. (4 wire)	9 miles	Sections 17,8,7, 12, 1, 11, 10, 3 & 34 T34S & 35S,R4W		Permittee
Clark Mtn. C&H; Pines C&H Allotment Divi- sion Fence	Fence Std. (4 Wire)	2 miles	Sections 30,31,36 & 1, T34 & 35S, R 4 & 4 1/2W		Permittee
Casto-Mud Pasture Berry Springs Pas- ture Division Fence	Fence Std. (4 wire)	3-3/4 mi.	Sections 10,16,17 & 18, T35S, R4W	1957	Permittee
John L. Swale Pasture Berry Springs Pasture Division Fence <i>John L. Swale Division</i>	Fence Std. (4 wire)	3-1/4 mi. <i>3 1/2</i>	Sections 16, 15 22 & 27, T35S, R4W	1960 & 1963	Permittee
Mud Springs	Ponds	Small	T35S, R4W	Approx. 1950	Permittee
Cabin Hollow	Pond	Small	T35S, R4W	"	Permittee
Pat Willis Draw	Pond	Small	T35S, R4W	"	Permittee
Upper Pat Willis	Pond	Small	T35S, R4W	"	Permittee
Pines	Pond	Small	T35S, R4W	"	Permittee
Reid Ranch	Pond	Small	T35S, R3W	"	Permittee
North Reid Ranch	Pond	Small	T35S, R4W	"	Permittee
Lower John L.	Pond	Small	T35S, R4W	"	Permittee
Upper John L.	Pond	Small	T35S, R4W	"	Permittee
Upper Pat Willis #2	Pond	Small	T35S, R3W	1955	Permittee
Pat Willis Draw #2	Pond	Small	T35S, R3W	"	Permittee
Upper W. Fork Mud Creek	Pond	Small	T35S, R4W	1956	Permittee
Spring Creek	Pond	Small	T35S, R4W	1956	Permittee

Gussie Draw	Ponds	2 small	T35S, R4W	1956	Permittee
Middle W. Fork Mud Spring	Pond	Small	T35S, R4W	1956	Permittee
Upper Cabin Hollow	Pond	Small	T35S, R4W	?	Permittee & F. S.
Head Cabin Hollow	Pond	Small	T35S, R4W	?	Permittee
Coyote Hollow	Troughs	120 gal.	T35S, R4W	1966	Permittee
	(Pumped from Blue Fly Allotment Windmill)				
John L. Swale	Windmill (With storage tank and trough)	5000 gal.	T35S, R4W	1966	Permittee
Lower Hancock Spring (needs upgrading)	Spring & Trough		T34S, R4W	1963	Permittee & F. S.
Berry Springs Development Pipeline & 3 Ponds	Plastic 1 1/4 Pipeline with 3 ponds	3 1/2 mi.	Sections 16, 21 & 28, T35S,R4W	1974	Permittee

2. Existing Non Structural Improvements

Treatment	Acres	Location	Year
Dixie Harrowed or Plowed & Drilled	9660	Pines Area	1949-1950's

C. Proposed Improvements

1. Structural

Name	Type	Size	Location	Project Work	Estimated Cost
1. Berry Spring Pipeline Extension	Plastic Pipe	3/4 mi.	Sections 28 & 33 T35S, R4W	Crawler Tractor laying pipeline & building pond	\$1700.00
2. Extension of the windmill in John L. Swale	Plastic Pipe	3/4 mi.	Section 30, T35S R3W	Crawler tractor laying pipeline & building pond	\$1700.00
3. Hancock Flat Spring Dev.	Headbox & 2 Ponds	100'	Section 32, T34S, R4W	Crawler Tractor Building Pond Reconstruct head-box	\$ 500.00
4. Pipe from spring in Mud Spring Creek onto secondary range at the head of Pat Willis Draw on John L. Swale Pasture	Headbox & Pipeline	3 mi.	Sections 4, 10, 14, T35S,R4W	Crawler Tractor laying pipeline and building pond. Also install trough	\$3400.00
5. Head cut Rehabilitation	Check dams	4	Sections 31 & 32, T35S,R4W	Crawler Tractor	\$1000.00
6. Replace pipeline from the windmill in Coyote Hollow goint to the Pines Allot.	rebuild trough pond & replace	3/4 mi.	Section 32, T35S, R4W	Crawler Tractor	\$1800.00

VII. ALTERNATIVES

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

VIII. CORRELATION WITH OTHER USES

A. Wildlife

On December 17, 1975, 70 head of antelope from Parker Mtn. were released on the Wittsoe Allotment which lies approximately 6 miles north of the Pines Allotment. In the fall of 1977 an additional 100 head of antelope from Parker Mountain are scheduled to be released on the East Pines Allotment which lies directly north of the Pines Allotment. At present, the travel and use patterns for these animals have not been established. It is anticipated that these animals will range over 4 or 5 allotments including the Pines C&H.

Due to the different grazing habits of antelope and cattle, no conflicts of use are expected. Range structural improvements are being modified to allow free movement of antelope. Planned improvements will be designed and constructed to permit migration of all big game.

The antelope are to be maintained at a number which does not cause major conflict with livestock grazing. The exact number will be adjusted in accordance with subsequent findings from habitat evaluation studies, and upon agreement between the Utah Division of Wildlife Resources and the U. S. Forest Service.

Elk from Mt. Dutton Elk herd frequent the area in the early spring. Increased observations have been noted in the last 3 years. The elk migrate off the allotment in the summer. Competition with livestock is not significant at this time.

There is only limited deer use on the allotment. However, habitat is available should the herd expand.

The Utah ~~Prarie~~ Dog is found in scattered colonies throughout the east half of the allotment. These areas and the adjacent John's Valley area harbor one of the largest colonies of the prairie dog within the State of Utah. In years past this animal has been hunted and poisoned. Consequently it has been added to the list of endangered species. At present the population is increasing. Although there are no known conflicts of use, future efforts will be taken to insure that structural and/or non-structural improvements do not interfere with the prairie dog colonies.

Sage Grouse is the only upland game bird found on the allotment. Habitat in the Mud Spring-Berry Springs drainages is ideal for these birds. Sightings during the past year in the Pat Willis Draw area indicate that this particular location is a grouse booming ground. Any future revegetation projects will be designed to maintain or improve the grouse habitat.

Bald and Golden Eagles occur within the allotment. Their exact habitat locations aren't known, but the Golden Eagles nest in the

rocky craigs bordering the allotment on the north side. The bald eagle is a migratory bird and frequents the area mainly in the winter months. Several other raptors as well as many species of songbirds inhabit the area year round or seasonally.

B. Watershed

Watershed conditions on most of the allotment are in satisfactory condition, however, there are a few areas that need improvement.

Areas below Casto Bluff in Sections 31 and 32, T35S, R4W, contain large active headcuts. This is due mainly to the existing soils. Other isolated spots will improve through the proper distribution of livestock. The rest-rotation grazing system (including water development) is improving this situation.

C. Timber

Commercial timber stands occur as scattered ponderosa pine in the John L. Swale and Cabin Hollow Areas. These sale areas were cut in the fall of 1976. At the present time there appears to be no conflicts associated with livestock grazing.

D. Recreation

This allotment receives some recreation use particularly during the hunting seasons. Deer hunters camp at Hancock Flat, Tent Hollow and at the head of Pat Willis Draw. Most of the activity consists of road hunting through the allotment.

IX. 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 which is essential for good results.

X. FOLLOW-UP SECTION

Studies and inspections will continue to be made on the allotment to evaluate (1) range condition and trend, (2) accomplishment of management goals, (3) effectiveness of the grazing system and (4) adequacy of the stocking rate.

A. Benchmarks

There is at least one benchmark and photo-point transect on each of the three units. These will be read periodically on the rested unit as subsequent data is needed.

B. Parker 3 Steps

Seven Parker 3 Step transects have been established on the allotment. They will be read periodically as subsequent data is needed.

C. Unit Inspection Records

Unit examination records "R4-2200-15" will be kept and use intensity mapping will be conducted on a yearly basis.

D. Utilization Standards

The management system is designed so that the physiological needs of the grasses are met. However it is not planned to "grub" any unit to the ground. The cattle will be moved to the next unit when an acceptable degree of use has been achieved.

E. Check on Livestock Numbers

The cattle will be periodically counted onto the allotment or when they change units. It is not contemplated that excess numbers will be placed on the allotment. Should problems occur, dye branding or tagging can be reinstated.