

DEADMAN MESA ..
ALLOTMENT MANAGEMENT PLAN
1988

Payson Ranger District
Tonto National Forest
Region 3

(b)(6)

Prepared by: Range Staff

1/17/88
Date

(b)(6)

Reviewed by: District Ranger

1/29/88
Date

(b)(6)

Agreed to by: Permittee

11/19/91
Jan 17, 1988
Date

(b)(6)

Approved by: Forest Supervisor

2-26-88
Date

(b)(6)

Deadman Mesa

Allotment Management Plan

A Categorical Exclusion, in conformance with the National Environmental Protection Act and concerning management of the Deadman Mesa Allotment, was written and agreed to by Forest Supervisor James L. Kimball on October 28, 1987. A copy of this document can be found in the appendix of this plan. The preferred alternative chosen was a winter rotation system through eight pastures with minimal construction of new improvements. The current permittees Double Spur Ranches are fully supportive of and have participated in the development of this proposed system of grazing.

Basic Description

The Deadman Mesa Allotment is located immediately west of Strawberry, Arizona and totals approximately 17,000 acres in size. One half of the allotment is considered no capacity range. Those areas considered NC are found primarily in the Mazatzal Wilderness area in Hardscrabble Canyon and along the cliffs and steep slopes of Fossil Creek. Vegetation consists primarily of the Pinyon-Juniper woodland type with Utah Juniper as the primary species. This type is found primarily on the main Deadman Mesa landform that is distinctive to the area. Other vegetative types include; Riparian (along Hardscrabble Canyon and Fossil Creek), Chaparral (along steep canyon slopes and upper Fossil Creek basin), Ponderosa Pine (around Strawberry) and isolated grassland openings found throughout the allotment.

History of Use

The history of grazing on the Deadman Mesa Allotment as determined from the 1966 Allotment Analysis indicates that it was split from the Pine Community Allotment in 1942. Actual use prior to this date is too difficult to determine, although it was known that in 1920, 3,767 cattle grazed yearlong where approximately 632 are permitted at this date. This is approximately one sixth of what was originally permitted. The Total preference in 1942 was 297 cattle yearlong. The Calf Pen Allotment on the Coconino National Forest was included with the Deadman Mesa Allotment for years and is still controlled by the present permittees. The permitted numbers allowed on the Deadman Mesa Allotment at this time is 175 cattle from 10/21 to 5/31. Fifty cattle of this number are held in a range protection non-use agreement. The permitted cattle graze on various allotments on the Coconino N.F. from 6/1 to 10/20.

Past cattle operations have been primarily cow calf operations. The current permittees however have recently stocked with two year old heifers and may vary stocking according to their other ranch needs.

Management units existing on the allotment include two division fences on the top of the Mesa and several drift fences to prevent cattle from dropping into the canyons. These improvements are generally in poor condition and will need replacement if they are to be used effectively.

Problems and Conflicts

The Deadman Mesa Allotment has been considered overgrazed for many years. Capacity estimates from the 1970's indicated proper stocking should be 73 cattle 10/21 to 5/31. Fence and water improvements have not been maintained over the years. Existing fences are therefore not effective in providing barriers to cattle movements. Stock tanks have filled with silt and in several instances breached. The resultant problems have manifested themselves as a lack of forage, lack of ground cover, accelerated erosion, juniper and brush encroachment and a declining range condition. In particular the mesa top around Gus's Pasture, around permanent waters, and in the old juniper pushes have suffered the most.

Wild cattle in Hardscrabble Canyon have been identified as a problem for at least the last four years. Reports of from ten to twenty head have been reported to the District Office. One recent range inspection identified four animals observed in the Hardscrabble Lake area.

Of major consideration are the riparian areas in Hardscrabble and Fossil Creek Canyons. These areas are scenic and currently in fairly good condition. Fossil Creek in particular is heavily recreated.

The 1984 addition to the Mazatzal Wilderness Area encompasses all of Hardscrabble Canyon and most of the lower end of Fossil Creek. Management decisions must reflect the guidelines identified for these areas in the Forest Land Management Plan and Forest Service Handbooks and Manuals.

The lack of forage has also placed demands on wildlife in the area to compete with livestock. Proposed management will attempt to mitigate these needs.

Goals and Objectives

The long term goals for the Deadman Mesa Allotment are;

Manage the allotment according to the direction identified in the Tonto Land Management Plan. This plan identifies all areas within the Mazatzal Wilderness Area to be in management area 4A and all areas found on the Mesas outside the wilderness area in area 4F. The Fossil Springs Natural area is found at the far north end of the allotment and totals 20 acres in size. This area is considered management area 4E. Suitable rangeland within area 4A will be managed at level B which controls livestock numbers within present grazing capacity. Improvements are minimal and constructed only to the extent needed to protect and maintain the range resource in the presence of grazing. Management in area 4F is at level D. Level D seeks to optimize production and utilization of forage for livestock use consistent with maintaining the environment and providing for multiple use of the range. Management area 4E is at level A. Level A excludes livestock grazing to protect other values or eliminate conflicts with other users.

The short range objectives for the Deadman Mesa Allotment are:

1. Protect and enhance vegetation along Fossil Creek and Hardscrabble Canyon Riparian Areas.
2. Increase production of perennial grasses on Deadman Mesa through implementation of a new grazing plan.
3. Reduce conflicts between livestock and wildlife by increasing production and species diversity.
4. Reduce impacts of cattle grazing within the Mazatzal Wilderness Area.
5. Eliminate livestock grazing from the Fossil Springs Natural Area.
6. Utilize livestock and grazing as a tool to improve existing vegetative conditions.
7. Accomplish improved management in a cost beneficial manner.

Specific Objectives by Pasture (Refer to Appendix for Pasture Use Plan)

1. Upper Fossil Creek - This pasture is approximately 3323 acres in size. Cattle will be scheduled to use this pasture for a 1.5 month period in the fall. Two miles of fence and a 10 ft. minimum standard cattleguard is necessary to isolate this pasture from the Upper Mesa Pasture. This pasture is primarily a brush pasture. Emphasis will be to use salt and herding to keep cattle utilizing the brush species up out of the Fossil Creek riparian area. One corral located along Forest Road 708 near Fossil Creek is also planned.

Utilization objectives along Fossil Creek riparian area is 50% by twig count or 20% by volume on all woody species. The key area to be monitored will be around Fossil Springs. The district and forest boundary is located along the bottom of Fossil Creek. Fossil Springs is located on the Coconino National Forest. For practical management purposes the allotment boundary fence is located on the Coconino National Forest side. This fence runs along the bluff just north of the creek and ties into natural boundaries. Fossil Springs itself will be excluded from grazing through the use of walk through gates and horse gates. The Beaver Creek District on the Coconino National Forest will share the responsibility of constructing these gates and signing the trails. A comprehensive management plan for the Fossil Springs Wilderness Area will be developed by the Coconino National Forest in 1988. The permittee will make sure horse gates are closed whenever they put cattle in this pasture. Utilization levels for grass forage will be set at 50%. Justification of this use level is based on the fact that this area will only be grazed during the winter months.

The Nash Point pasture is a small trap found adjacent to this pasture. Total acreage in this pasture is 288 acres. This pasture can be used in the spring for a month long period as a bull or horse pasture for approximately 10 to 12 animals.

2. Upper Mesa Pasture - This pasture is approximately 2525 acres in size. It has been utilized the heaviest in the past and is therefore in the worst condition. Vegetation consists of primarily Pinyon-Juniper Woodlands with an understory of snakeweed with some isolated pockets of Ponderosa Pine and oak brush. Cattle are scheduled to use this pasture for a month in the fall and a month in the spring. Actual use will be less than this because the permittees management needs usually have him come on one or two weeks late and leave one

or two weeks late. While cattle are coming on and going off, they are held in Gus's Pasture or the Headquarters Pasture for a week or so for branding and other handling needs.

The main objectives are to control the amount of time cattle graze this pasture in any one period, and to increase the amount of perennial grasses found on the mesa. Spot seeding will be used to introduce seed sources to the area. Gus's pasture is located along FR 708 in section 25 and is approximately 200 acres in size. This pasture is used as a gathering trap and is in as poor or poorer condition than the rest of the mesa. This trap will be cross fenced and seeded. Use periods will be rotated with the Ranch Headquarters pasture at this time. One side of Gus's will be seeded and rested until grass becomes established, then the other will be seeded and rested. A waterlot will be constructed around Gus's Tank. The key area to monitor will be around Gus's tank and between this holding trap and the Ranch Headquarters. Allowable use will be set at 40% on perennial grass species, and 50% on "A" brush species (Mountain Mahogany, Silktassel, etc.).

No other new structural improvements are planned for this pasture. Reconstruction projects include the Shakepile Waterlot and Division fence. Heavy maintenance is necessary for Gus's Tank and Shakepile Tank.

3. Shakepile Pasture - This pasture is approximately 557 acres in size. It is vegetated with open Pinyon-Juniper Woodlands with blue grama and curly mesquite grasses as an understory. Oak brush can be found in drainages and in isolated areas. This pasture will be used for three weeks in the winter in odd numbered years and three weeks in the spring in even years. The main objective is to maintain and improve the perennial grass component found in this pasture. New construction needs consist of several strategically placed drift fences to keep cattle from dropping off the mesa into the Slaughterhouse Pasture. One reconstruction project is needed to reconstruct the division fence between this pasture and the Middle Mesa Pasture. The key area to monitor will be the area around the Middle Mesa Fence where the main mesa road crosses. Utilization in this area should not exceed 50% on perennial grasses and 60% on "A" brush species (Mountain Mahogany, Silktassel, etc.).

4. Slaughterhouse Pasture - This pasture is approximately 697 acres in size. It is vegetated with Chaparral with areas of Pinyon-Juniper and grasses. This pasture will be used in conjunction with the Middle Mesa Pasture. Slaughterhouse Tank is the only water source. At this time we will not plan on maintaining this tank. A new drift fence is necessary along the trail between Middle Mesa and the Slaughterhouse Pasture. This fence will allow control over the number of cattle to be placed in this pasture. This pasture is wholly within the Mazatzal Wilderness Area. The key area to monitor will be that area around Slaughterhouse Tank and the saddle to the north of it. Allowable use in that area will be 50% on perennial grasses and 60% on "A" brush species (Mountain Mahogany, Silktassel etc.).

5. Middle Mesa Pasture - This pasture is approximately 1,426 acres in size. Vegetation consists of a mix of brush, grass, and Pinyon-Juniper. This pasture will be used in conjunction with the Slaughterhouse Pasture. Cattle will be

kept in these pastures for a two month period each year. This pasture is the most productive pasture on the allotment. A fairly good stand of perennial grasses can be found on the western most side of the pasture and a moderate annual stand can be expected each spring. A large area of juniper control was completed in the late 50's and early 60's in the northern portion of this pasture. Much of this control area has grown back to junipers. A prescribed burn is planned to remove some of the younger junipers and some of the thick stands of snakeweed found in the understory. Spot seeding in bare areas found within this pasture is also necessary to provide a seed source for future germination. To properly utilize this pasture a new saddle tank will be constructed in the NE 1/4 of section 30. Waterlots are also necessary around this new tank as well as Louthan and Bill Tanks. Reconstruction projects include repairing Louthan Tank and rebuilding the pasture division fence between Middle and Lower Mesa Pastures. The main objective will be to increase production of perennial grasses within the juniper control areas and maintain grassland areas found within the pasture. Key areas to be monitored will be the Juniper push area and those areas around the stock tanks. Utilization levels should not exceed 50% on perennial grasses and 60% on "A" class brush species (Mountain Mahogany, Silktassel etc.)

6. Lower Mesa Pasture - This pasture is approximately 742 acres in size. Cattle will use this pasture for a one month period. New improvements that need construction includes two drift fences. One drift fence needs to be constructed along trail #17 off the top of Deadman Mesa into the junction of Fossil Creek and Hardscrabble Canyon, and the other needs to be constructed where the trail drops off the mesa into Hardscrabble Lake. Cabin Tank and its waterlot needs to be reconstructed to provide more permanent water and control of livestock in the pasture. In addition a waterlot needs to be constructed around Indian Springs. The main objective for management will be to control the amount of time cattle are allowed in this pasture. This will allow perennial grasses to increase in production. This pasture produces a moderate to heavy crop of annual grasses and forbs each year. The periods of use will be late January to early February on even numbered years and April on odd numbered years. This will promote the recovery of cool season grasses. Some spot seeding will establish a seed source in areas that are devoid of perennial vegetation. The key area to monitor will be those areas around Cabin Tank and directly east of the tank. Utilization on perennial grasses should not initially exceed 50%.

7. Lower Fossil Creek - This pasture is approximately 2,154 acres in size. The majority of this pasture is located within the Mazatzal Wilderness Area and is considered no-capacity range. The boundary between the Coconino National Forest and the Tonto National Forest is considered Fossil Creek itself. Much of this area is not fenced on line, therefore cattle often times intermingle between the Ikes Backbone Allotment and the Deadman Mesa Allotment. At this time both allotments are controlled by the same permittee. Vegetation consists primarily of chapparral with occasional Pinyons and Junipers interspersed. The bottom of Fossil Creek is rough and rocky but does support riparian obligate species. The main objective is to prevent overuse along the riparian area and increase use in the Chaparral type. This objective will be difficult to accomplish. The need for creative herding and salting will always be present.

This pasture will be scheduled for use every odd numbered year by 25 to 30 cattle. The length of time cattle will be allowed in there will be from two to three months from December through February. One new watergap is needed along Fossil Creek at the private land boundary. This will effectively divide Lower Fossil Creek from the upper portion. If control of cattle between the two different forests becomes a problem, a fence between the two areas will need to be looked at. The key area to be monitored will be around private land in the bottom of Fossil Creek and that area directly east of Stehr Lake.

8. Hardscrabble Canyon Pasture - This pasture is approximately 5,388 acres in size. Much of this pasture is considered No Capacity range, and all of it falls within the Mazatzal Wilderness Area. Vegetation in this pasture ranges from Pinyon-Juniper Woodlands to Chapparral along the steep canyon sides and Riparian along the bottom of Hardscrabble Canyon. The main objective of management in this pasture is to remove all wild cows and to prevent any overuse along the riparian area located in the bottom of the canyon. This area will be grazed every even numbered year by 25 to 30 cattle for a two or three month period. No animals will be allowed in this pasture until the wild cattle have been removed. No new improvements are planned in this pasture. There are several corrals currently in this pasture and one drift fence. One of the corrals located near Hardscrabble Lake needs to be maintained to be used effectively. The key area to be monitored is that area around Hardscrabble Lake. Use in this area should not exceed 40% on perennial grasses and 50% on "A" brush species (Mountain Mahogany, Silktassel, etc.). (Same as Fossil!)

Range Improvements

The planned structural and non-structural improvements for both new construction and reconstruction are given in the appendix. The costs are broken down for both the permittee and the Forest Service responsibilities.

Maintenance of Improvements

Normal maintenance as needed will be required of the permittees. The maintenance responsibility map outlines what improvements are the permittees responsibility.

Herding and Salting

It is the permittees responsibility to utilize both herding and salting and/or supplemental feeding to entice cattle away from concentration areas. The forest policy is that no salt will be placed on or within 1/4 mile of permanent water sources without specific approval from a forest officer. The use of supplemental feed when used on a regular basis also needs approval. Approval is generally given for special situations such as round up or locating animals that would otherwise not stay in a particular area.

Monitoring

District personnel will monitor the success of management through range inspections. Frequency plot transects may be established to monitor any short range changes to the range vegetation. Those areas to be monitored will be the key areas identified in the specific objectives by pasture section of the text. The final resolution of the Resource Protection Non-Use Agreements will be based on the inspections and/or a Production and Utilization Survey completed at the end of the non-use period. Final decisions on capacity should not be made until the allotment management plan is fully implemented. If necessary the non-use agreement may be extended for one more five year period.

APPENDIX

- I. Project Priority and Cost Estimates
- II. Biological Evaluation
- III. Scoping Document
- IV. Categorical Exclusion
- V. Arizona Dept. of Game and Fish Letter
- VI. Economic Analysis
- VII. Social Well Being Analysis
- VIII. Environmental Quality Benefit Rating
- IX. Allotment Management Plan Map (Attached to Front Cover)

Deadman Mesa Allotment Management Plan Project List

<u>Project Name By Priority</u>	<u>Year Planned</u>	<u>Estimated Costs FS/Permittee</u>	<u>Responsibility</u>
Structural Projects			
1. Shakepile Fence Recon. 1 mile	1988	\$2,000/1,000	FS Materials ^{1/2 FY89} Permittee labor ^{Complete FY91}
2. Fossil Corral & Watergap	1989	\$0/500	Permittee
3. Walk Through/Horse Gate	1989	\$1,000/0	Forest Service
4. Gus's Pasture Fence and Waterlot 1 mile	1989	\$2,000/2,000	FS Materials FY92 Permittee labor
5. Middle Mesa Saddle Tank	1989	\$3,000/1,000	FS Construction FY92 Permittee
6. Upper Mesa Division Fence 2 miles, 1 cattleguard	1990	\$5,500/3,000	FS Materials 1 mile (89) FY92
7. Tank Maintenance 5 tanks	1991	\$2,000/3,000	FS Materials 2 maintained Permittee labor
8. Middle Mesa Fence Recon. 1 mile	1991	\$2,000/2,000	FS Materials FY91 Permittee labor
9. Lower Mesa Fence 1 mile only gate needed	1991	\$2,000/2,000	FS Materials FY92 Permittee labor
10. Forest Road 428 Cattleguard	1992	\$4,000/0	Forest Service
Non-Structural Projects			
1. Deadman Burn 400 Acres	1992	\$4,000/0	Forest Service
2. Gus's Pasture and Pasture Spot Seeding	1991	\$6,000/2,500	
	Totals	\$33,500/17,000	

ECONOMIC ANALYSIS - RANGE ALLOTMENT PROJECT
(Ref. FSH 2209.11)

1. Region

3

Forest

MONTO

3. District

PAYSON

4. Allotment

DEADMAN MESA ALLOTMENT

5. Alternative

PREFERRED

PART I - BENEFITS - OUTPUTS "WITH PROJECT"

A. Benefits	B. Analysis Time Periods (Year)				C. Total AUM Present Value MS	D. Total Resource Related MS	E. Total Benefits Present Value MS
	1 - 3 (a)	4 - 8 (b)	9 - 15 (c)	16 - 25 (d)			
Grazing AUM's							
1. Permitted grazing AUM's average annual/year for period.	(a) Increase						
	(b) Sustain	50	150	350	350		
	(c) Total	50	150	350	350		
2. AUM Value Coefficient \$/AUM	9.55	9.55	9.55	9.55			
3. Total Value, AUM (line 1c x 2)	477.50	1,432.50	3,342.50	3,342.50			
4. (a) Discount Factor @ 4% <input checked="" type="checkbox"/> (x rate used)		2.7751	3.9577	4.3856	4.5037		
	(b) Discount Factor @ 7 1/8% <input type="checkbox"/> (x rate used)	2.6183	3.3241	3.0940	2.4871		
	(c) Discount Factor @ _____% <input type="checkbox"/> (x rate used)						
5. Present Value, M\$ (line 3 x line 4(a), (b) or (c))	1.3	5.7	14.7	15.0	36.7		
Resource Related Benefits							
6. Watershed \$							
7. Wildlife	(a) Hunter Visitor Days	5	15	25	25		
	(b) \$ Value/HUD	55	55	55	55		
	(c) Benefit \$ (a x b)	275	825	1375	1375		
8. Fuelwood, other products \$							
9. Total Resource Related Benefit \$							
10. (a) Discount Factor @ 4% <input checked="" type="checkbox"/> (x rate used)		2.7751	3.9577	4.3856	4.5037		
	(b) Discount Factor @ 7 1/8% <input type="checkbox"/> (x rate used)	2.6183	3.3241	3.0940	2.4871		
	(c) Discount Factor @ _____% <input type="checkbox"/> (x rate used)						
11. Present Value, M\$.7	3.3	6.0	6.2		16.2	
12. Total Benefits P.V., M\$ (line 5 + 11)	2.0	9.0	20.7	21.2			52.9

Comments