

DEVILS CANYON ALLOTMENT MANAGEMENT PLAN

Globe Ranger District

Tonto National Forest

Prepared Jointly By: George C. Martinez Date 10/2/79
George C. Martinez, Range & WL Staff

Dan Robinett Date 10-11-79
Dan Robinett, Range Conservationist, SCS

Walter E. Lockhart Date 10/5/79
Walter E. Lockhart, Manager

Agreed To By: Robert B. Cunt Date 2/7/80
ASRCO Incorporated

Submitted By: David M. Stewart Date 2/22/80
David M. Stewart, District Forest Ranger

Approved By: James L. Kimball Date 3/15/80
James L. Kimball, Forest Supervisor

Coordinated Cons. Plan

ASARCO and Walt Lockhart (mgr.) owners, operator of the JI Ranch in Pinal Co., Az. have entered into the following conservation plan.

The plan incorporates private, state and forest lands. It summarizes work to be done on all lands. Twice a year (spring, fall) representatives of the Forest Service, SCS*will meet with the rancher to cooperatively make decisions such as needed plan and stocking rate changes for the different grazing areas.

*and State Land Department

Plan prepared cooperatively by:

Ranch owner ASARCO Incorporated

Ranch operator Walter E. Lockhart mgr.

DC Coolidge F.O. SCS Philip J. Foster
(Winkleman NRCO)

State Land Dept Joe J. Jelinek**

Dist. Ranger Tonto NF David M. Stewart
(Globe Ranger Dist.)

Tonto Forest Supervisor John C. Bidell

**Subject to boundary stipulation per State Land Commissioner letter dated 11-23-79.

I. DESCRIPTION

The Devils Canyon Allotment is located west of Miami, Arizona, along Highway 60. It borders the Superior Allotment on the west with the boundary being the Apache Leap, which for the most part, forms a natural barrier to livestock. On the north it joins the Brushiest Allotment with the boundary being the ridge between Haunted Canyon and the heads of Queen Creek, Devils Canyon and the ridge between Wood Creek and Sheep Camp Canyons. On the east are the Bellevue and Lyons Fork Allotments with the boundary being the west rim of Powers Gulch and Mineral Creek. To the south of the allotment borders Kennecott and the Battle Ax Ranch on State land.

The elevation runs from 2,800 feet in Devils Canyon on the south end to 5,400 feet peaks in the north. The terrain varies from relatively flat open mesas on the south to rough rocky broken canyons and peaks on the north.

The allotment contains some 43 sections, of which 7,520 acres are State land, 432 acres of private land and the remainder (19,253 acres) is National Forest land. All land is combined and managed as one unit under a rest/rotation system of grazing which was established in 1960 and modified in 1976.

A. Management Units

Devils Canyon which is a natural barrier south of Highway 60, splits the allotment east and west. The highway also divides the allotment north and south. Three large pastures are thus formed and are named as follows and contain the respective acreages:

North Unit	9,240
South East Unit	5,300
South West Unit	5,082

B. Type of Operation and Animal Husbandry

The cow herd is managed as a commercial cow/calf/yearling operation in which bulls are run yearlong with the cows. Calves are carried over as natural increase and sold as yearlings the following spring.

The rotation schedule is based on 6 months intervals, April and October, during which working of cattle is accomplished.

Livestock were tagged and tattooed in 1977 in an attempt to gain better control of numbers, age of cattle, and productivity. The program would also serve to assist in confirming death losses.

C. Permitted Numbers

Term Permit #12-459 issued 1/7/76 to American Smelting and Refining Company lists the following as permitted numbers on the Devils Canyon Allotment:

256 cattle	1/1 - 12/31
87 yearlings	1/1 - 5/31
10 yearlings	1/1 - 11/30

In addition, 99 cattle 1/1 - 12/31, 34 yearlings 1/1 - 5/31 and 4 yearlings 1/1 - 11/30 are permitted under the on-off provision because the State lands are grazed jointly with the National Forest lands.

D. Problems and Conflicts

The carrying capacity at present is limited by the existing water locations and area utilized. There are 24 stock tanks and 3 permanent springs and 3 wells within the boundary of the allotment. Utilization around these waters ranges from 60-70% during the season of use. This problem can be alleviated by developing waters in areas which are currently not utilized. Fencing and controlling water in historically heavy-use zones will also remedy this problem.

As recreation use increases, vandalism of range improvements continues to be an ever-increasing problem. In order to minimize this impact, proposed range improvements will be constructed of metal or concrete and screened from view as much as possible.

The use of Oak Flat area by livestock can result in conflicts with the recreationists. The intensity of this problem can be mitigated by limiting livestock use of the Oak Flat area to one month. The area will be used to temporarily hold livestock when moving cattle from the Southwest Unit on to the North Unit. This conflict is expected to occur only once in 2 years.

Gates are frequently left open by the traveling public. This could negate the positive effects of the system. The use of "Please close the gate" signs, and maintenance of hard-to-close gates will encourage motorists to keep gates closed.

There are not enough pastures to accommodate bulls under the proposed controlled breeding program desired by the permittee. To remedy this situation, a small pasture will be created on the North pasture and incorporated into the system.

The present holding facilities north of Oak Flat are inadequate to hold livestock over night when moving from the Southwest pasture. This problem can be mitigated by creating a small holding pasture adjacent to the existing underpass north of Oak Flat.

Trespass from adjoining state lands have been a problem over the years. This activity can negate the positive effects of the management plan. The primary offenders are the Battle Ax Ranch and Kennecott Copper Company. Part of this problem can be alleviated by reconstruction of the South Boundary Fence and through obtaining the cooperation of the offenders. If all else fails action to impound unauthorized livestock must be initiated.

Due to the terrain an increase in numbers or replacement of cull cows would have to be done through hieifers from within the herd. Also because of economics an attempt to increase the herd size would take several years. The only way to resolve this situation is by working closely with the permittee.

II. GOALS

The longterm goals for the Devils Canyon Allotment are:

1. Realize the forage production potential of the land.
2. Increase the production of palatable forage which is available for livestock use.
3. Increase the number of AUM's and wildlife within 10 years.
4. Improve and maintain a multi-layered wildlife habitat including riparian habitat along drainages and adjacent to springs, seeps and water courses.
5. Improve watershed conditions through increased plant density, litter accumulation and reduction of soil compaction.
6. Maintain and/or improve visual quality.
7. Maintain or improve human values.

In order to accomplish the described goals an intensified 3-pasture rest-rotation system accompanied by additional range improvements will be needed.

The following short range objectives will serve to accomplish the long-range goals:

1. Provide rest during critical plant growth periods by intensifying the current management system.
2. Balance the availability and utilization of forage by modifying the season of use.
3. Allow plants to meet their physiological growth requirements through a rest-rotation management system.

4. Maintain average utilization of perennial forage at 60% in key areas.
5. Improve livestock grazing patterns by development of additional range improvements and improved salting practices.

III. MANAGEMENT SYSTEM

The system to be employed is a 3-pasture rest-rotation for the base herd and complimentary systems for bulls and horses.

The 3-pasture six month rotation with intensified management will allow for complete yearlong rest following grazing.

Season of use will be established and in full operation by 1981. This will serve to accomodate bulls under a complimentary system and allow for establishment of a two to four month breeding season (April through July). During this transition period, the larger calves will be sold in the fall with total fall sales starting in 1981.

The following grazing schedule describes graphically the rotation agreed upon:

When 10% of the tags originally issued cannot be accounted for, livestock will be retagged and or numerically accounted for.

VI. RANGE IMPROVEMENT CONSTRUCTION

Structural Range Improvements

Range improvements to be constructed under the plan include both those proposed on National Forest land and State land.

Priority I Range Improvements

<u>Year</u>	<u>Improvement Name</u>	<u>Responsibility</u>	<u>Estimated Cost</u>
FY 1980	Manzanita Tank	Forest Service to	3,000
	Rim Tank	contract access and	3,000
	Whitetail Tank	construction, per-	3,000
	Kim Tank	mittee to transport	4,000
	Walt Tank	or pack fuel to	3,000
	Monte Tank	avoid building	3,000
	Superior Tank	permanent roads.	3,000
	Pot Hole Tank		2,500
	Horse Tank		2,500
	North Tank	<i>North SW 1/4 sec. 3 T. 15 R. 13 E</i>	2,500
	Bob Tank	<i>SW 1/4 SE 1/4 sec. 2 " "</i>	2,500
	End of Road Tank		
	Upper Henderson Tank	Permittee to Construct	Permittee -
Cabin Tank		12,000	
Point Tank	Access trails, tanks and trap fences		
FY 1980	State Trap	Permittee to construct 1 1/2 miles of fence	Permittee - 3,500
FY 1980	State Well & Storage	Permittee to supply & install pump, storage, pipeline and 2 troughs, Forest Service to provide 1 trough. This improvement is located primarily on State land	FS - 300 Permittee - 5,000
FY 1980	JI Pipeline	Forest Service to provide materials (1/2 mile pipeline and trough). Permittee to install	FS - 1,000
FY 1980	Queen Spring Upper Queen Spring	Forest Service to provide materials, permittee to install	FS - 1,000
FY 1981	Bull Pasture Fence (2 1/2 miles)	Forest Service to purchase materials, permittee to construct	FS - 3,000

Done

*Done
State well supply tank*

Done 1980

Done 1980

<u>Year</u>	<u>Improvement Name</u>	<u>Responsibility</u>	<u>Estimated Cost</u>
FY 1980	Hackberry Well & Storage	Permittee to purchase and construct	Permittee - 7,000

Priority II Range Improvements

FY 1981	Horse Corral <i>Subm HCC EHM 1900-4 9/15/81</i>	Forest Service to purchase materials, Permittee to construct	FS - 3,000
FY 1981	Hutton Peak Division Fence Reconstruction (1 mile) <i>Materials supplied</i>	Forest Service to purchase materials, permittee to construct	FS - 1,000 ⁷⁵ <i>NO CONTRIB.</i>
FY 1981	Oak Flat Fence Reconstruction (2 miles) <i>f.s. to do 54b m HCC 1900-4 11/1/81</i>	Forest Service to construct	FS - 7,000
FY 1981	Grapevine Tank Bluff Tank <i>Done</i>	Permittee to construct access trails and tanks	Permittee - 6,000
FY 1981	State Corrals <i>Done relocate to Hackberry tube done summer 1981</i>	Permittee to purchase and maintain portable corrals	Permittee - 6,000
FY 1982	South Boundary Fence (2 miles on State 1/2 mile on National Forest land) <i>no help from FSI needed wait Spring of 82</i>	Forest Service to provide 1/2 mile fence materials permittee to contribute 2 miles of materials and construct	FS - 300
FY 1982	Oak Flat Corral and Holding Trap <i>Done Fall of 81 wait to do</i>	Forest Service to purchase materials permittee to construct	FS - 1,000

Priority III Range Improvements

FY 1983	Superior - Devils Canyon Boundary Fence (2 miles) <i>order materials Hqs Pk - Fortuna Pk</i>	Forest Service to provide materials, Permittee to construct	FS - 2,200
FY 1983	Horse Spring <i>To construct 11/1/83</i>	Forest Service to provide materials, permittee to construct	FS - 500
FY 1984	Rancho Rio Spring	Permittee to provide materials and construct	FS - 500
FY 1984	Boundary Tank	Forest Service to contract construction	FS - 2,500
FY 1984	JI Reveg and Fence <i>Look @ w/ Torr</i>	Forest Service to burn	FS - 3,000

<u>Year</u>	<u>Improvement Name</u>	<u>Responsibility</u>	<u>Estimated Cost</u>
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200 acres of chaparral vegetation and purchase materials. Permittee to construct 3/4 mile of fence

FY 1984	Devils Canyon Lyons Fork Fence Reconstruction <i>Wait to pick-up materials 5/83</i>	Forest Service to provide materials, permittee to construct 3/4 mile fence	FS - 800
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FY 1984	Devils Canyon - State Fence	Permittee to provide materials and construct 3/4 mile of fence	Permittee - 2,500
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FY 1984	Hackberry Reveg	Permittee to revegetate 100 acres on State land	
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FY 1984	Stock Tank Fencing Javelina Tank Erosion Tank Paul's Tank	Forest Service to Construct	FS - 1,500
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FY 1984	Stock Tank Traps End of Road Tank Point Tank	Permittee to provide materials and construct	Permittee - 1,000
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Hackberry Castlesand

(off main rd to Hackberry Tank)

if funds permit

VII. MAINTENANCE OF IMPROVEMENTS

All improvements listed as maintenance responsibility under terms of the permit should be maintained at least once during the life of this plan.

In general, improvements should be in a workable condition when livestock enter into a fresh unit.

Specific improvements needing maintenance will be identified as the Annual Permittee Plan. The type of maintenance will be clearly stated.

VIII. FOLLOW UP

A. Annual Permittee Plan

On a yearly basis the Annual Plan of Management will be prepared jointly by the Range Conservationist and permittee. The plan should identify the following items.

1. Rotation Schedule

Based on the 2200-18 contained in this plan subject to minor modifications. Specify pastures, moving dates, season of use, and numbers of livestock.

2. Salting Techniques

Specify locations or areas where salt should or should not be placed.

3. Range Improvements Maintenance

Specify the type of maintenance needed and follow up.

4. Range Improvement Construction

Identify what improvements are planned and identify time frame for construction by the responsible party.

5. Livestock Accountability

Specify the method by which livestock numbers and tag numbers on the allotment will be confirmed annually.

6. Range Inspections

Identify the specific inspections which will be conducted to monitor utilization levels, livestock numbers, salting techniques and compliance with permit terms and conditions.

B. Monitoring Objectives

1. Annual inspections are the key to effective evaluation of this plan. Inspections should be conducted as a minimum when livestock are moved out of a unit and in the company of the permittee. Normally this would require two inspections per year. Problems with salting techniques, maintenance, excessive utilization levels and or poor distribution should be mentioned to the permittee while on the allotment. A written report of findings should be presented to the permittee. The need for amending this plan can only be determined through close supervision.
2. Remeasurement of Conditions and Trend Clusters will serve to evaluate the success of this plan. These should be done during the fourth year and in the company of the permittee. A determination should be made by the fifth year if the plan has served to improve conditions and or justify any change in stocking rate.
3. Production Utilization Studies should be conducted during the first year following completion of the majority of the stock tanks in order to: (1) verify if the allotment can sustain the current numbers and (2) to explore the opportunity for increased stocking.

IV. DISTRIBUTION AIDS

Improved livestock distribution is essential in order to accomplish the established objective. The following items describe the means by which livestock distribution can be improved.

Water

New water developments will aid to improve distribution of grazing use. Eighteen stock tanks, three spring developments, a 15,000 gallon storage tank and 2 miles of pipeline will have to be constructed. These additional waters are planned in areas which currently receive light use due to the distance from water and steep, broken terrain.

Salting

Salting areas will be selected by permittee and Range Conservationist monitoring the allotment. In general salt should be placed approximately a quarter mile from water where light use is occurring and where livestock are able to graze. Placement of salt in soft areas will be avoided to the extent possible and the same salt ground will not be used year after year. Livestock should be located on the salting area to encourage use early in the grazing season.

Horseback Distribution of Cattle

The physical movement of livestock goes hand in hand with the use of water and salt as management tools. As livestock are moved into a rested unit they should be distributed and located on all available waters and salting areas. This is to avoid the possibility of concentrating too many livestock in any one area.

Fencing

Livestock proof fences are an essential part in achieving good distribution and providing rest to adjoining pastures.

Before livestock are moved into a unit, all fences should be maintained.

V. OTHER MANAGEMENT AIDS

Tagging and Tattooing of Livestock

A record of tag numbers must be maintained by the permittee. Each year the permittee must provide the District with a list of tag numbers on the allotment.

Tags should be removed from all grown cattle upon their sale and death loss (if the tag is still intact). Livestock purchased or retained as replacements should be tagged before they are placed on the allotment.

COST ESTIMATE

Tucson Office

Improvements to J. I. Ranch

SW U. S. Exploration Div.

PLANT

DRAWING NOS.

BY RLHoyle AUTH. NO. _____ DATE January 25, 1980

CHECKED BY _____ DATE _____

CLASSIFIED MATERIAL	QUANTITIES	EST'D. LIFE	EST'D. DATE OF COMPL.	UNIT PRICES		ESTIMATED COST		TOTAL ESTIMATED COST
				MATERIAL	LABOR	Total	Rebate	
AR 1980								(b)(4)
End of Road Tank								
per Henderson Tank								
bin Tank								
oint Tank								
ate Trap - 1/2 Mi Fence								
ate Well and Storage - Pump								
orage, Pipeline and								
ough								
ckberry Well and Storage - Pump,								
Storage, Pipeline and Trough								
AR 1981								(b)(4)
apevine Tank and Bluff								
nk								
ate Corrals								
AR 1982								
uth Boundry Fence - 2 Mi.								
ate Corrals								
AR 1983								
uth Boundry Fence - 2 Mi.								
vegetation								
AP 1984								(b)(4)
ncho Rio Spring								
vils Canyon Fence - 3/4 Mi.								
ock Tank Traps								
nd of Road Tank								
oint Tank								
calation								

**GRAZING SYSTEM
PASTURE PLAN AND USE RECORD**

DISTRICT **Globe**

DATE PREPARED **9/1/79**

PASTURE OR MGT. UNIT	First Year - 1979												Second Year - 1980												Third Year					
	MONTH												MONTH												M					
	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A
COW HERD																														
West																														
East																														
North																														
BULLS																														
Horse																														
Hutton																														
Bull																														
HORSES																														
Headquarters																														
Horse																														
Hutton																														
Bull																														
YEARLY NOTES:													<p>Actual Use</p> <p>1/1 - 5/31 344 cattle } North 39 yrls }</p> <p>5/31 - 9/30 344 cattle } East 4 yrls }</p> <p>10/1 - 12/31 239 cattle - North</p> <p>Rotation modified due to water shortage in West Pasture</p>												<p>Actual Use - due to</p> <p>North 1/1 - 4/15</p> <p>West 4/16 - 8/15</p> <p>East 10/16 - 12/31</p> <p>30 Fries</p> <p>Bulls pasture West Hutton</p>					
																									<p>Rotation switched plan on leaving</p>					

