

# Woody Mountain Allotment Management Plan (AMP)

Flagstaff Ranger District

Coconino National Forest

Prepared by:   
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Date 8/27/2014

Agreed to/  
Reviewed by:   
Manterola Sheep Company, Inc.  
Permittee

Date 8/27/2014

Approved by:   
Micah Grondin  
Flagstaff Deputy District Ranger

Date 8/27/2014

## **I. Introduction**

This Allotment Management Plan (AMP) is designed to update the existing 1982 AMP for the Woody Mountain Allotment. Only minor changes in the 1982 AMP were necessary based on an environmental analysis of grazing use and the Decision Notice and Finding of No Significant Impact (DN/FONSI) for the Woody Mountain Allotment was signed by Fred Trevey, Forest Supervisor, Coconino National Forest, on October 20, 1995. As a result, this AMP includes management direction provided in the 1982 Allotment Management Plan as well as additional management actions required by the October, 1995 Decision Notice and Finding of No Significant Impact.

## **II. 1982 Woody Mountain Allotment Management Plan**

A copy of the June 1, 1982 Allotment Management Plan for the Woody Mountain Allotment is attached. Allotment management direction provided in this document is relevant to the management and operation of the Woody Mountain Allotment unless modified by additional management actions required by the October, 1995 Decision Notice and Finding of No Significant Impact (see Section III).

## **III. Additional Allotment Management Direction**

Additional management actions required by the October, 1995 Decision Notice and Finding of No Significant Impact include:

1. Restore the permitted grazing season to a season ranging from 45 to 84 days.
2. Permitted use of 830 head of sheep (ewes) for the National Forest portion of the allotment and 815 head of sheep (ewes) for the State Trust land portion of the allotment.
3. Allow a second graze in one or more of the camp units if the plants in the camp unit have fully recovered from the previous graze period.
4. Livestock grazing will be managed to limit consumption of aspen regeneration by livestock to 20% or less of current year's growth.
5. Livestock grazing will be controlled by management to allow adequate regeneration of grasses and forbs in mountain grassland areas (meadows).

MANAGEMENT PLAN  
Woody Mountain Allotment

1982 - 1986

U.S. Department of Agriculture  
Forest Service  
Southwestern Region  
Coconino National Forest

Prepared by for Jerry W. Bradley 3/4/82  
RALPH D. POPE, District Range Staff Date

Submitted by M. Reid 3/4/82  
MAX C. REID, District Ranger Date

Reviewed by Joe A. Manterola 3/12/82  
Manterola Sheep Company, Inc. Date

Reviewed by Robert B. Scopa 3/9/82  
Robert Scopa, SLD Resource Mgr. Date

Reviewed by Gerald L. Mundell 3/4/82  
GERALD L. MUNDELL, Forest Range Staff Date

Approved by Joe T. Fallini 4/29/82  
Arizona State Land Department Date

Approved by William L. Helms 6/1/82  
for NEIL R. PAULSON, Forest Supervisor Date

This management plan is a tool to be used to achieve better Range management. Like any tool, if it is not the right tool for the job, it should be changed or revised so that the job can be accomplished in the most efficient and timely manner.

## I. INTRODUCTION

The Woody Mountain Allotment is located on the Flagstaff Ranger District, approximately six miles southwest of Flagstaff along the west side of U.S. Highway 89A South. (See attached Grazing Unit Map.) The gross acreage of the Allotment, after an exchange of portions of the Allotment with the Rogers Lake Allotment in 1981, is 10,201 acres. The net total National Forest land is 5,145 acres, and the net total State and private land is 5,056 acres. Of the net total National Forest lands, 1,795 acres are considered suitable for grazing, 2,387 acres are considered to have potential capacity, and 963 acres are considered to have no capacity for grazing. Of the net total State and private lands, 3,593 acres are considered suitable for grazing, 953 acres are considered to have potential capacity, 510 acres are considered to have no capacity, and 160 acres are closed to grazing.

In 1980 when the reduction was made on the Allotment, 2,518 acres of State and private lands and 899 acres of National Forest lands were fenced out of the Allotment. The 899 acres of National Forest lands are at present not grazed and were excluded only because the State and private lands that are no longer waived isolate these parcels.

The permittee on the Allotment is the Manterola Sheep Company, Inc., who is also the permittee on the Mooney Mountain, Garland Prairie and Pomeroy Allotments which lie approximately 8 miles west of the Woody Mountain Allotment, and is also the permittee of a winter sheep allotment on the Tonto National Forest.

## II. BASIC DESCRIPTION

### A. Management Units

This Allotment has been and is presently grazed with sheep under a herding management system. Because of this type of management, no internal pasture fences have ever been constructed on this Allotment. Each year, areas to be grazed and the amount of time in each area are designated in the annual permittee instructions.

### B. Type of Operation

As stated above, this Allotment is grazed with sheep under a herding management system. The sheep are trailed up the Beaverhead-Grief Hill stock driveway in the spring from either the Casa Grande - Phoenix area or winter range on the Tonto National Forest, and arrive on the Allotment around the first of June. The sheep are driven to the corrals at Montoya Tank where the sheep that go to the Mooney Mountain, Garland Prairie, and Pomeroy Allotments are separated from the sheep that go to the Woody Mountain Allotment. The Woody Band then enters the Allotment through the gate at City Well #4. (See attached map.) From this point, the sheep are herded and allowed to graze the designated units for a designated number of days.

When the allowed time in each unit is used, the sheep are then herded back north to the point they entered the Allotment. Night camps and bed grounds are moved every other day as the sheep are herded in this grazing system to prevent the bedgrounds from receiving extremely heavy use.

The sheep are moved into the unwaived Sections of State and private land which are just north of the Allotment when they leave the Allotment for the summer.

#### C. Permitted Numbers and Season of Use

The present ten-year term grazing permit issued to the Manterola Sheep Company, Inc., which covers the grazing use on the Woody Mountain Allotment, was amended in 1980. This amendment sets the new season of use and term numbers on this Allotment at 830 sheep for the period of June 1 to July 15. This new shorter season of use is also recognized to be in effect on the State and private lands which are managed under an "on and off" permit. At the present time, the permittee is allowed to run a maximum of 1,657 sheep, which includes rams and burros, on the Allotment for the June 1 to July 15 season. The 1,657 sheep capacity includes the 830 term permitted sheep, 17 private land permitted sheep, plus 8 burros and 762 "on and off" permitted sheep on State lands. There are usually 8 burros and 30 rams which run with this band, so a total of 1,579 ewes is the maximum number of ewes allowed in the band when subtracting ram and burro use.

#### D. Range Limitations and Allowable Use

Two major factors caused this Allotment to be producing forage well below its capability. The first and most important factor is the large amount of very poor, poor, and potential capacity range that exists on the Allotment. (See the attached Vegetative Condition Map.) As stated earlier, of the total acres in the Allotment, only 5,388 acres are presently considered to be grazeable. Of these acres, only 648 acres are considered to be in fair condition, with no good or excellent condition range. The second major factor which affects the capacity of this Allotment and directly ties to the forage production, is the large amount of stagnant overstocked stands of ponderosa pine which occur on this Allotment. The State and private lands within the Allotment are very similar to the National Forest lands and are in much the same condition. Both the State Land Department and the Forest Service are or will be conducting timber sales and accompanying silvicultural practices on the Allotment in the near future, which should help correct this problem.

Much effort is needed to re-establish the perennial grass forage species on a large portion of the Allotment in order to maintain and enhance the productivity of the land. The current key forage species for the Allotment is mutton grass and mountain muhly in the pine vegetation type, and Kentucky bluegrass and spike muhly in the open parks and meadows. The proper allowable grazing use for these four key forage species is set at 35 percent. The result of silvicultural management treatments and range revegetation management on the Allotment will be an increase of introduced perennial grass forage species such as orchard grass and numerous wheatgrass species. At the time when these introduced forage species are well established and distributed into the total vegetative community, the Allotment's key forage species and proper allowable grazing use will change to reflect the management of these introduced species.



### E. Problems and Conflicts

The major problem which exists in the management and improvement of this Allotment is the mixed land ownership that makes up this Allotment. Much coordination will be needed between the permittee, the State Land Department, and the Forest Service in order to achieve any type of lasting revegetation work. Sheep numbers and the areas they are allowed to graze will have to be closely managed to protect revegetative efforts.

## III. GOALS AND OBJECTIVES

### A. Long Range Goals

Long range goals on the Allotment which this Plan will implement management towards, but may not be achieved within the life of this Plan are:

1. Develop the Allotment to its highest potential for forage production while still remaining compatible with other resources, uses, and activities.
2. Increase vegetative cover and litter to the level necessary to stabilize the soil and watershed conditions.
3. Improve the vegetative community such that the forage composition is enhanced, resulting in upward trends in range condition and plant vigor.
4. Maximize wool and meat production from this Allotment consistent with the resources, uses, and activities on the Allotment.

### B. Short Range Goals

The short range objectives of this Plan which will be achieved during the life of this Plan are:

1. Maintain permitted numbers in balance with the grazing capacity of the Allotment.
2. Implement a herding type deferred rotation grazing system which allows for at least two seasons of rest for areas which have been treated and seeded. This grazing system will allow livestock and wildlife grazing to occur that is in proper balance with available forage. This objective will be measured by comparing actual grazing use with prescribed allowable use on key perennial forage species.
3. Implement and carry out to the greatest extent possible, revegetation projects on all potential capacity range, and very poor and poor condition range.
4. Intensify the range improvement maintenance program.

In order to achieve these goals and objectives on this Allotment, every opportunity to do silviculture and reseeding work will have to be used. Work will

be done cooperatively as Forest Service and permittee dollars become available.

When the condition of this Allotment is improved, Production/Utilization surveys will be conducted and the capacity for this Allotment will be adjusted to the proper stocking level as indicated by the studies.

#### IV. MANAGEMENT SYSTEM

##### A. Grazing System

A five-unit grazing system was implemented on the Allotment last year. This system divides the Allotment into five units which are easily distinguished on the ground by roads, ridges, and drainages (see attached Grazing Unit Map). Since the grazing season on this Allotment is for the spring use period only, an early spring, late spring deferment system is used. This system uses two units early in the spring when the annuals and cool season grasses are maturing, one unit in mid-season, and the other two units in late season when the warm season growers start to grow. By following this type of system and having a short spring grazing season, the maximum amount of rest is achieved on the Allotment while still allowing some grazing. (See attached form 2200-18, Grazing System, Pasture Plan and Use Record, for detailed unit rotation schedule.)

##### B. Stocking Rate

The maximum stocking rate for this Allotment is 1,657 sheep; 830 Forest Term permit, 17 private land permit and 762 sheep and eight burros, "on and off" permit, for a 1.5 month period. As in the past, 8 burros and 30 rams are run with the band of ewes while they are on the Allotment. To stay within the proper stocking rate of 1,657 sheep, the burro use and ram numbers are subtracted from the 1,657 to give a total of 1,579 ewes allowed in the band. The grazing season may be varied by two weeks early or late, but will never exceed 1.5 months. As the range conditions on the Allotment improve, the stocking rates will be adjusted to the proper stocking level as indicated by studies.

##### C. Distribution Practices

1. Salting and Supplemental Feeding -- The following salting and supplemental feeding practices will be adhered to on this Allotment:

a. Supplemental feeding of energy supplements will not be permitted on the Allotment unless a proven need to use the supplements is shown, and a detailed plan is developed.

b. Supplemental feeding of vitamin or mineral supplements will be permitted and carried out in conjunction with salting.

c. Salting will be carried out as stated in Part 3, Item 5 of the term grazing permit, and as agreed to in the annual permittee plan. Salt will be placed in areas of feed, at least one-fourth mile from water, and away from previous salt grounds and roads.

2. Control of Waters -- Since on this Allotment the sheep are herded to and from water, the use of forage around the existing waters should be controlled by herding the sheep to as many of the different existing waters as possible. In the event that existing stock tanks dry up, water will be hauled to the sheep in areas where ample forage exists. These watering locations should not be near camps, salt grounds, major roads, or at the existing dried up stock tanks. The sheep will not be bedded down or camped within one-fourth mile of water.

3. Fencing -- Since this is a sheep allotment and is managed with herders, no pasture division fences are needed. No new fences are planned to divide this Allotment. Most of the Allotment boundary fences are in good shape, but need to be maintained yearly. Approximately three miles of fence should be built to keep livestock off the isolated parcels of Forest Service land that lie to the north of the Allotment (see the attached Improvements Map.)

4. Herding -- Grazing use by the sheep is controlled by a herding management system on this Allotment. The herding practice will be to have one band of sheep which will be moved from grazing unit to grazing unit as outlined on the attached form 2200-18. While in a grazing unit, the sheep will be herded to areas of feed where they will be allowed to graze, and also herded to water as needed. The sheep will be bedded in areas of good ground cover at least one-quarter mile from water. Open parks and meadows will not be used as bedgrounds. The sheep will not be bedded in the same spot for more than two nights in a season. Permanent camps and bed grounds should not be established.

The night camp areas will be left in a clean sanitary condition. All unburnable materials such as cans, bottles, etc., will be stored and then hauled to an approved dump. No permanent facilities such as fireplaces, tables, or benches will be constructed and left on National Forest lands. Care should be taken to remove any wires or ropes which are strung from tree to tree on the Allotment.

When the meadow areas around Garden Tank, Black Tank, and Black Pass Tank are reseeded, these areas will be posted and not grazed for two growing seasons.

## V. RANGE IMPROVEMENTS

### A. Structural Improvement - Reconstruction

1. Waters -- The following existing stock tanks will be cleaned and/or treated with bentonite.

- a. 89A, Imp. # 1794
- b. Black, Imp. # 1796
- c. Black Pass, Imp. # 2484

(See Improvement Map Items 1-3 for locations.)

The cost for cleaning and/or treating these tanks at 1980 prices will be approximately \$4,250. This figure is estimated using 20 tons of bentonite per tank at \$50 per ton, five hours of cat time per tank at \$50 per hour, and \$500 for labor and miscellaneous materials. The permittee share will be \$1,250 for equipment and labor, and the Forest Service cost will be \$3,000 for the bentonite.



2. Fences -- In 1981, 8 miles of new allotment boundary fence was reconstructed in conjunction with the Rogers Lake Allotment. Approximately 3 miles of boundary fence, which is between the State Lease Lands in Rogers Lake and State Leased Lands on the Woody Allotment, is the only allotment boundary fence which needs replacing. (See attached Improvement Map Item #4 for location.)

#### B. Structural Improvements - New Construction

1. Waters -- At this time no new waters are planned for this Allotment. In the future, when all of the timber sales and silvicultural work which affect this allotment have been completed and areas of quality forage increase, then new waters may be needed. These new waters and their locations will be planned at that time.

2. Fences -- At this time, no new pasture or allotment division fences are planned for this Allotment.

#### C. Non-Structural Improvement - Reseeding

As indicated earlier, much of the Woody Allotment is in poor or very poor condition. Much of the area needs some type of seed bed preparation and reseeded on it to bring it back to producing the forage of which it is capable. Reseeding of introduced species is needed to enhance, protect, and in some areas re-establish a suitable micro-climate for plant growth. The large amount of areas which are dominated by dense stands of stagnated ponderosa pine doghair make seed bed preparation impossible until these areas are thinned.

The thinning of Forest Service land will be done following the Forest Service timber sales which will take place on the Allotment (see attached vegetative condition, grazing capacity, timber sales map for tentative sale dates of Forest Service timber sales). Thinning work and reseeded of the timber sale areas should be done three to five years following the cutting of the timber. This timetable will make most of this work to be done in the time period from 1985 to 1990, which should be addressed in a new Allotment Management Plan.

On the State lands, several Sections have already been logged, thinned, and burned. No reseeded to improve the range condition has taken place following these timber sales, due mainly to no funds being made available. The State Land Department timber sale schedule is shown on the attached map.

Approximately 100 acres of Forest Service meadow land around Garden, Black, and Black Pass Tanks will be disced with a Towner disc and reseeded. This area is denuded of most vegetation except wild iris. The discing of the area will control the iris plus prepare a seed bed. The area will be seeded with the following seed mixture at 30 pure live seeds per square foot:

DISC MIXTURE

Species	% in Mixture	lbs. per acre	acres	lbs. of seed needed	Seed cost per lb.	Total cost of seed
Western wheatgrass	30	4.5	100	450	1.65	742.50
Crested wheatgrass	25	1.9	100	190	.69	131.10
Kentucky bluegrass	25	.2	100	20	.93	18.60
Alsike clover	5	.1	100	10	.48	4.80
Yellow blossom s.c.	15	.9	100	90	.52	<u>46.80</u>
						\$943.80

(See attached Improvement Map Item 5 for location.)

The approximate cost of this project will be \$944.00 for seed, \$2,500 for discing which was figured at \$25 per acre times 100 acres, and \$338 for miscellaneous materials. The permittee's cost will be approximately \$2,500 for discing. The Forest Service share will be approximately \$1,282 for seed cost and miscellaneous supplies.

Approximately 120 acres of the above mentioned meadow lands will be treated with a Dixie pipe harrow and seeded with the same seed mix at 30 pure live seeds per square foot:

HARROW MIXTURE

Species	% in Mixture	lbs. per acre	acres	lbs. of seed needed	Seed cost per lb.	Total cost of seed
Western wheatgrass	30	4.5	120	540	1.65	891.00
Crested wheatgrass	25	1.9	120	228	.69	157.32
Kentucky bluegrass	25	.2	120	24	.93	22.32
Alsike clover	5	.1	120	12	.48	5.76
Yellow blossom	15	.9	120	108	.52	<u>56.16</u>
						\$1,132.56

(See attached Improvement Map Item 6 for location.)

The approximate cost of this project will be \$1,132 for seed and \$1,721 for pulling Dixie pipe harrow with seeder.

## VI. RANGE IMPROVEMENT PRIORITY DEVELOPMENT LIST

<u>Priority</u>	<u>Project Name</u>	<u>Method of Improvement</u>
FY-82 1	Garden Tank Revegetation <i>Completed FY-82</i>	Disc and Seed
FY-82 2	Black Tank Revegetation <i>Completed - FY-82</i>	Disc and Seed
FY-82 3	Black Pass Tank Revegetation <i>Completed FY-82</i>	Disc and Seed
4	Garden Tank Revegetation <i>Completed - FY-82</i>	Harrow and Seed
5	Black Tank Revegetation <i>Completed - FY-82</i>	Harrow and Seed
6	Black Pass Tank Revegetation <i>Completed - FY-82</i>	Harrow and Seed
7	89A Tank Reconstruction <i>Not Needed</i>	Clean and Bentonite
8	Black Tank Reconstruction <i>Not Needed</i>	Clean and Bentonite
FY-82 9 <i>Permittee</i>	Black Pass Tank Reconstruction	Clean and Bentonite

## VII. COST ANALYSIS OF RANGE IMPROVEMENTS

The estimated total cost of the improvements outlined in this Plan is \$15,285. Of this cost, \$11,535 is the approximate cost to the Forest Service, and \$3,750 is the cost to the permittee.

The total cost of materials and seed is \$5,424, for equipment use is \$4,971, and labor is \$4,900.

The time to complete the total improvement work should take two years as outlined below:

<u>Project</u>	<u>COST</u>	
	<u>Forest Service</u>	<u>Permittee</u>
YEAR ONE		
Disc, Dixie pipe harrow and reseed 220 acres of meadow (map items 5 and 6)	\$8,535	\$2,500
YEAR TWO		
Clean and bentonite three stock tanks (map items 1-3)	\$3,000	\$1,250

The improvement work outlined in this Plan should begin in 1982, and be completed by 1983, unless funding for these projects is not available. If funding does not become available in the years planned, the project work will be started as soon as funds are secured for the projects, and the project will be completed following the priority listed above.