plan Prepared by: $\frac{\text { Condy Athmudt }}{\text { Cindy Echmidt, Range Conservationist }}$

$1-16-96$
Date
$\frac{1-16}{\text { Date }}-96$


## WILLOW VALLEY ALLOTMENT MANAGEMENT PLAN

## I. INTRODUCTION

Purpose of this document. Management alternatives for the Willow Valley Allotment were evaluated in the Willow Valley Allotment Management plan Environmental Assessment (EA). The Blue Ridge District Ranger selected a managment alternative and signed the Decision Notice/Finding of No Significant Tmpact in 1994. This document sets forth the ten year schedule for carrying out the selected alternative for managing the Willow Valley Allotment.

Location. The Willow Valley Allotment is predominantly National Forest land, located on the western boundary of the Blue Ridge Ranger District, due east of Forest Highway 3 (Lake Mary Road). Approximately 114 acres of private land are contained within the boundaries of the Allotment. Of these, 32 acres are a portion of the base property for the Allotment in and adjacent to the Willow Valley drainage. The other 82 acres form a private residential subdivision, (Clear Creek Pines Unit 1 , on the eastern edge of the Allotment).

Previous AMP. The last AMP expired in 1976. The AMP prescribed a two pasture deferred rotation system. The pastures are split by a east-west fence. Under the previous AMP, cattle entered one pasture at the beginning of the grazing season. Midway through the summer, cattle moved to the other pasture. The following year, cattle entered the second pasture to begin the grazing season, then moved to the first pasture in the middle of the year. The third year rotation carried out the first year scheme, and so on.

Animal stocking density was relatively low, and water availability is limited, so many areas received little or no grazing pressure, while others were over-grazed. The riparian bottoms were grazed heavily by livestock and elk, while the uplands received little or no use.

## II. THE SELECTED ALTERNATIVE

The management scheme approved in 1994' called for several actions to better distribute forage utilization, including: division of the main pastures into smaller units; development of additional water sources, and herding. These actions are intended to improve livestock distribution and provide for control of the time that livestock can use critical riparian and meadow areas.

## A. MANAGEMENT OBJECTIVES

Several managment objectives were identified in the EA.

1. Maintain and improve plant diversity. Increase vegetative cover. Reestablish woody vegetation in Willow Valley Draw.

$$
\text { Page } 9 \text { of } 17
$$

2. Maintain and improve watershed conditions while providing for wildife habitat, dispersed recreation opportunities, Threatened and Endangered species habitat, and preservation of archeology resources.
3. Design management practices to accomodate elk/cattle/fire interactions.
4. Maintain the economic viability of the permittee.

## B. MANAGEMENT STRATEGIES

The selected alternative calls for several management strategies to meet objectives.

1. Split pastures. The allotment will be split into four upland pastures by constructing a north-south fence. This fence will improve livestock distribution and forage utilization. This grazing strategy is based on physiology of plants (time of growth and dormancy) and will result in shorter graze periods. Shorter graze periods will greatly reduce or eliminate overgrazing by livestock.
2. Create riparian pasture. Construction of riparian pasture/elk exclosure will help to manage elk and cattle to promote riparian vegetation recovery.
3. Reduce vehicle access to riparian areas. Obliterate or close roads located within Willow Valley Draw.
4. Reintroduce fire. Use prescribed fire as a tool to stimulate growth in forage plants, improving upland vegetative conditions.
5. Increase animal use in upland area. Increase stock density (more animals per unit of area) will force cattle to graze in upland areas, stimulating forage production on decadent plants.

## C. ANNUAL STRUCTURAL IMPROVEMENTS

The following improvements are scheduled for installation in 1995 and 1996. Costs for improvements are distributed below.

| Year | Project | F.S. | Permittee |
| :--- | :--- | :--- | :--- |
| 1995 | Cattleguard (211 Rd.) | $\$ 6,500$ | $-0-$ |
| 1995 | Electric fence (2.5 miles) | $\$ .4,250$ | $-0-$ |
| 1995 | Barbed wire fence (2.5 miles) | $\$ 12,500 *$ | $-0-$ |
|  | Riparian pasture |  |  |
| 1996 | Barbed wire fence (1 mile) | $-0-$ | $\$ 5,000$ |
| 1996 | Stocktanks (4 waters) | $-0-$ $\$ 6,000$ <br>   | $\$ 10,750$ |
|  |  | $\$ 11,000$ |  |

*This cost is not part of the $50 / 50$ agreement between Forest Service permittee.

Page $\qquad$
D. GRAZING SEQUENCE FOR YEARS 1995-2005 BASED ON NEN STRUCTURAL IMPROVEMENTS

1. Grazing Sequence 1995.

| Date | Pasture | Number of Livestock |
| :--- | :--- | :--- |
| $5 / 20-7 / 19$ |  |  |
| $7 / 20-10 / 19$ | South | 140 cow/calf-3 horses |
|  | North | 140 cow/calf-3 horses |

2. Grazing Sequence 1996-2005.

The following grazing sequence is based on physical vegetative characteristics (plant dormancy and growing season). During key species growing season, graze periods will not exceed 21 days. Graze periods during key plants dormancy, graze periods may be scheduled for up to 40 days.

Once grazing sequence has been completed for years 1996-1999, this sequence will be repeated.

1996

| Date | Pasture | Number of Livestock |
| :--- | :--- | :--- |
|  |  |  |
| $5 / 20-6 / 8$ | D | 140 cow/calf-3 horses |
| $6 / 9-7 / 17$ | C | 140 cow/calf-3 horses |
| $7 / 18-8 / 22$ | A | 140 cow/calf-3 horses |
| $8 / 23-9 / 25$ | B | 140 cow/calf-3 horses |
| $9 / 26-10 / 19$ | D | 140 cow/calf-3 horses |


| Date | Pasture | Number of Livestock |
| :--- | :--- | :--- |
|  |  |  |
| $5 / 20-6 / 8$ | C | 140 cow/calf- 3 horses |
| $6 / 9-7 / 17$ | A | 140 cow/calf -3 horses |
| $7 / 18-8 / 22$ | B | 140 cow/calf- 3 horses |
| $8 / 23-9 / 25$ | D | 140 cow/calf-3 horses |
| $9 / 26-10 / 19$ | C | 140 cow/calf-3 horses |


| Date | Pasture | Number of Livestock |
| :--- | :--- | :--- |
| $5 / 20-6 / 8$ | B |  |
| $6 / 9-7 / 17$ | C | 140 cow/Calf- 3 horses |
| $7 / 18-8 / 22$ | A | 140 cow/calf- 3 horses |
| $8 / 23-9 / 25$ | D | 140 cow/calf-3 horses |
| $9 / 26-10 / 19$ | B | 140 cow/calf-3 horses |
|  |  | 140 cow/calf-3 horses |


| Date | Pasture | Number of Livestock |
| :--- | :--- | :--- |
| 5/20-6/8 | A |  |
| $6 / 9-7 / 17$ | D | 140 cow/calf-3 horses |
| $7 / 18-8 / 22$ | B | 140 cow/calf-3 horses |
| $8 / 23-9 / 25$ | C | 140 cow/calf-3 horses |
| $9 / 26-10 / 19$ | A | 140 cow/calf-3 horses |
|  |  | 140 cow/calf-3 horses |

Pastures that are first entered in the spring are scheduled to be regrazed (depending on forage conditions) in the fall. The purpose of this regraze is to freshen up Arizona fesuce. The intent of this grazing scheme is to attract elk into these pastures during the fall and following spring.

## E. MONITORING

Watershed and soil conditions will be monitored. Ten permanent monitoring sites will be established along the length of Willow Valley Draw. Streambank stability will be monitored by measuring channel width at predetermined points. Change in channel width will indicate the effectiveness of strategies. Monitoring will take place once a year during the summer. Photos will be taken at each channel profile monitoring site to indicate an increase or decrease in vegetation.

Photo points will be established within both the cattle and elk exclosures. These photo points will be used to determine the success of woody vegetation reestablishment.

Prescribed burn areas and watershed conditions will be monitored using the following parameters:
a. Soil heat intensity;
b. Estimation of percent consumption of ground cover by fire, measured before and after prescribed fire on the ground;
c. Changes in grwund cover, measure by photo poin documentation and ocular estimates, before the areas are burned, in the fall following burning and prior to livestock entry, and again after the monsoon rains in September.

## F. RIPARIAN PASTURE

The maintenance and repair of the riparian fence (displayed on map) will be the responsibility of the U.S. Forest Service until such time the permittee is allowed to graze this pasture. This pasture will be defwerred from livestock grazing until woody vegetation has been reestablished in Willow Valley Draw. When the permittee is allowed to graze the riparian pasture, the maintenance and repair of this fence will then become the permittee's responsibility.

