ASH CREEK
Management Plan

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MANAGEMENT PLAN

ASH CREEK ALLOTMENT

I. INTRODUCTION

The Ash Creek Allotment is located along the West Central boundary of the Verde Ranger District, approximately 5 miles East of Dewey. The west allotment boundary is also the Prescott National Forest boundary. Highway 169 splits the allotment with approximately 1/3 of the ranch North of 169 and the remaining 2/3 South of 169.

Elevations range from 4100 to 5800 feet, with the topography generally quite gentle. The allotment consists of 2 major vegetation types. Chaparral species dominate the granite hills North of Highway 169 (management area 3). Species in this area include turbinella oak (Quercus turbenilla), skunkbrush (Rhus trilobata), mountain mahogany (Cercocarpus), and desert Ceanothus (Ceanothus greggii). Weeping lovegrass (Eragrostis curvula) is present in some areas that had been rootplowed and seeded during the 1960's.

The second vegetation type on the allotment is the semi-desert grassland South of Highway 169 (Management Area 5) although there is a strip of Management Area 3, South of the highway. The terrain is gentle with a few steep drainages. The dominant species are tobosa (Hilaria mutica), curly mesquite (Hilaria belangeri), sideoats gramma (Boutelaua curtipendula), Bluegramma (Boutelaua gracilis) three awns (Aristrida Spp.) and squirrel tail (Sitanion hystrix). Mule deer are common in the chaparral and grasslands, along with a wide diversity of small and birds. Antelope are found in the grasslands.

Three major drainages, Yarbo Wash, Osborne Wash, and Ash Creek run through the allotment.

Yarbo and Osborne Washes are classified as ephemeral streams, meaning they flow only in direct response to precipitation. Their stream channels are above the water table. Both washes are characterized by wide, sandy, sometimes rocky channels. Yarbo does have a couple of seeps due to granitic materials in the stream bed forcing water to the surface and Osborne has one small spring.

Ash Creek is classified as a riparian area. Water flows all year and regeneration of the riparian plant community is taking place through much of Ash Creek. Better livestock management and more rest for the riparian areas from livestock, coupled with improved watershed conditions, will lead to the further enhancement of the riparian habitat.

II. HISTORY OF MANAGEMENT

Grazing permits were issued for the Ash Creek and Mulberry allotments in 1916. The Ash Creek grazing permit was for 30 cows yearlong, Mulberry was 71 cows

yearlong. The numbers fluctuated for both allotments thru the years with Ash Creek having a high of 175 cows yearlong in 1946. In 1960, 50 cows yearlong was the permitted use on the Mulberry Ranch. Trespass livestock played a significant role on both allotments as fences were not completed until 1950. The Ash Creek and Mulberry allotments were combined in 1984, assuming the name Ash Creek.

The Beaverhead/Grief Hill Sheep driveway runs through the Southern part of the allotment. Sheep enter the Forest on this allotment on their way to the Coconino and Kaibab Forests. The sheep are counted and crossing permits issued each year, in early May, at Ash Creek Well. In the early part of this century, 80,000 sheep or 40 bands used this driveway. In recent years, the numbers have dwindled down to 6000 sheep, 3 bands.

III. PRESENT MANAGEMENT

The ranch is operated as a cow-calf operation. Branding occurs in the spring, and shipping in the fall. The permit is for 225 cattle yearlong on a variable basis. The variable numbers are due to intermittent use of irrigated pastures on private land. A deferred rotation system is used on the allotment now. Cattle are placed in the brush pastures North of 169 during the winter months. The cows have not been doing well in these pastures, with low calf weights and a high incidence of abortion. The grass pastures south of 169 are grazed during the spring, summer, and fall. (Low summer rainfall amounts can hurt these grass pastures with slow or no growth and low vigor in much of these areas. Some stock tanks have little or no water during dry summers, making the cattle concentrate in areas with water.) Each grass pasture has one year rest before being grazed again. The use of irrigated pasture allows the flexibility of the cattle to be moved off the Forest and on to the fields. After grazing on the irrigated pastures, the cattle are moved into the Forest pasture designated by the management the management grazing schedule.

IV. OBJECTIVES

The objectives of the Ash Creek Allotment Management Plan reflect the emphasis of the Prescott National Forest Plan. The long term management goals are to enhance the grassland and riparian ecosystems while improving the efficiency of the livestock operation.

1. More agressive antelope habitat management through;

    a. Slowing brush encroachment into grasslands.
    b. Increasing annual forb production by grazing and prescribed fire.

2. Increased grazing rest for riparian and grassland forage plants through better livestock control.

3. More efficient forage utilization through better grazing distribution.

4. Increased livestock production.

5. Increase soil retention and improve the water cycle through increased litter (mgtm area 5) and herbaceous ground cover (mgtm area 3).

V. PROPOSED MANAGEMENT

A. Structural Improvements

A higher degree of livestock grazing control is necessary to meet the plan objectives. The new proposal is to split South, Central, and Big pastures, adding 3 more pastures to the allotment. A short section of fence will be built in Metate pasture to control the amount of time the cattle spend in Ash Creek. By creating new pastures, the cattle will spend less time in the riparian areas along Ash Creek, Osborne Wash and Yarbo Wash. This added rest in these areas will benefit the wildlife and riparian areas and associated wildlife.

1 1/2 miles fence - split South Pasture - Antelope Standard
2 miles fence - split Central Pasture - Antelope Standards
2 miles fence - split Big Pasture - Antelope Standards
1 5000 gallon storage tank - Highway 169
2 miles, 1 1/4 inch plastic pipe
2 water troughs
1/4 mile fence - Metate pasture above Ash Creek - Antelope Standards

B. Prescribed Burning

Prescribed burning and seeding will be done in the chaparral in management area 3. Burning temporarily reduces the density of brush, stimulates sprouting, increases palatability and increases overall forage quality, for cattle and wildlife. Sites are generally less than 40% slopes and soils with moderate or high forage production ratings. After burning, grasses will be seeded in these areas. This will increase ground cover, allow better rainfall infiltration, and reduce soil movement resulting in less sheet and gully erosion.
Due to the burning, the exposed soil surface will tend to cap. By using the cattle (for a very short time period) on the burn their hoof action can break this cap (enhancing the water and mineral cycle by allowing penetration and aeration into the soil). Following grass-establishment, livestock grazing will sustain the grass vigor and slow the regrowth of brush.

With improved livestock management and an aggressive burning program, (in area 5) brush encroachment can be slowed and in some areas stopped. Removal of decadent material allows sunlight to reach the ground, increasing production of annual grasses and forbs that were suppressed by the grass canopy. Grassland burning also promotes recycling of plant nutrients.

A 274% increase in annual forb production (the primary antelope forage) has been documented as resulting from prescribed burning of grasses. Observations on the Verde District have indicated that antelope frequently use burn sites for foraging and bedding areas following regrowth. The burn prescriptions are designed to create a mosiac pattern for cover and shelter for small animals and ground nesting birds.

After regrowth on the burns, the cattle will help maintain them by trampling litter onto the exposed soil between the plants and breaking the soil cap, allowing microbial decomposition to take place. Grazing reduces standing foilage, preventing regrowth from becoming grey and decadent, and promotes vigorous leaf growth and plant vigor.

C. Grazing Management.

The three brush pastures in area 3 will have livestock numbers set according to management objectives and needs. Burning and seeding projects will dictate movement of cattle between pastures. Each pasture will recieve one years rest following grazing in it.

Capacity and time of use are other criteria for use in these pastures. Little Brushy, a small pasture, has an old root plow from the 1950's, in part of it. Weeping Lovegrass was seeded into the rootplow. The other two pastures have varying amounts of grass. Because grasses are present in these pastures, timing of the livestock moves should be determined by the proper level of grass utilization. This will provide for a healthy grass community which is necessary for soil stabilization.

The remaining ten pastures will be used by the main herd. Rotation management will be based on three criteria will be used for attaining proper level of use plan objectives.

Plant community - The ten pastures have a diverse plant community. Tobosa and Blue Gramma are the dominant species. A healthy stand of cool season grass (Squirrel Tail) is abundant in Jensen Pasture and is mixed with the brush in Woolgrowers. Yarbo, Burro and Metate, all tobosa pastures, require a higher level of utilization to stimulate regrowth.

Season of use - When grasses are dormant, higher level of use can be sustained. During growing seasons, lower level of use will be attained, so the plants will not be stressed during this time period.

Precipitation - Summer monsoons are critical moisture months for the Blue Gramma pastures, South and Peter's Spring. Some years the summer rains are very scattered on this allotment. During dry summers, the rotation will be accelerated.

Flexibility is built in this grazing system by use of private irrigated pasture. During spring and early summer, the cattle can be moved from the Forest to the permanent pasture fields.

VI. FOLLOW UP AND MONITORING

The accomplishment of management objectives will require monitoring to measure progress and determine needed management adjustments. Adjustments in grazing intensity, rest or range improvements can be identified during monitoring and implemented as necessary. A high level of flexibility is possible with this number of pastures and is required for attaining the plan objectives.

Photo points and brush transects will be set up in South Pasture to monitor the encroachment of woody species into the grasslands. Existing fixed point transects throughout the allotment will be reviewed for compatability with plan objectives for species composition, plant community health, litter, and percent of ground cover. Monitoring will be done following burns in the spring to measure forbs and annuals.

Ash Creek has been identified as a riparian area to be surveyed by the Prescott National Forest. This survey will aid in accessing current conditions and future potential in preserving and enhancing the riparian areas running through this allotment. Photo points will be set up on implementation of this management plan to complement the riparian survey.

Antelope research currently is being conducted and will be incorporated into this plan if needed.

A grazing capacity study will be conducted after the management has been in effect for a period of time that reflects the results of the new management.