

# Allotment Management Plan

## Horsethief

Bradshaw Ranger District, Prescott National Forest

Yavapai County, Arizona

### Introduction

The Horsethief Allotment is located on the Bradshaw Ranger District of the Prescott National Forest (PNF) in the southeast corner of the District, approximately 10 miles south of Mayer, Arizona.

The topography of the allotment averages from 2,900 feet along Rattlesnake Canyon to 6,500 feet at the southernmost point of the crest of the Bradshaw Mountains. The allotment is located on the eastern slopes of the Bradshaw Mountains. The primary riparian drainages within the allotment are Poland Creek, Turkey Creek, and Castle Creek. Poland and Turkey Creeks converge to form Black Canyon, Castle Creek is a tributary that flows into Black Canyon Creek.

The prominent ecotype occurring on the allotment is Sonoran desert shrub and chaparral in the lower elevations. Saguaro cactus, paloverde, mesquite, catclaw, and grasslands dominate the lower elevations. Higher elevations favor chaparral plant communities that include shrub live oak, mountain mahogany, and Manzanita with pinion and juniper on the southern slopes. Ponderosa pine and isolated pockets of Douglas fir are found at the highest elevations on the allotment, in the mountainous terrain included within the Castle Creek Wilderness. The topography in the higher elevations is very steep with precipitous slopes and deep canyons. These slopes break off into a gentler gradient forming benches at the lower elevations. Approximately half of the allotment is located within the Castle Creek Wilderness, which was established in 1984.

Under the current term grazing permit the allotment authorization is ranging from 450 to 993 Animal Unit Months (AUM's), for up to 182 days, equivalent to a range of livestock numbers from 106 to 207 yearlings cattle for 6 months. An AUM is defined as the measure of the average amount of forage used by one cow-calf pair over the course of one month. Seasonal grazing for up to 182 days between the months of September and April. Livestock grazing has generally been a yearling steer operation during the dormant season. There are no pasture division fences on this allotment and livestock are generally stocked and rotated on a combination of natural geographic boundaries and available water. It has been approximately 10 years since this allotment was last stocked with cattle.

### B. Grazing Management and Allowable Use

Site	Utilization levels
Upland sites	Upland forage (growing season) – 31-40% (Sept 1 – 30 <sup>th</sup> ) Upland forage (non-growing season) – 41-50% Upland Browse – 50- 60%
Riparian	Riparian Woody - 20% Riparian Herbaceous – 4-6" minimum stubble height where sedges and rushes are key species and 8" where deergrass is key species unless in area of concern"

#### Grazing Intensity Guidelines – Site-specific Resource Protection Measures for Areas of Concern

1. Conservative grazing intensity guideline (31-40% use) during the dormant season on impaired soils and to discourage concentrated livestock use on TES map unit 275.
2. Maintain minimum stubble heights on key herbaceous species at riparian and spring areas in partially functional status (functional – at risk), which includes Castle Creek, Poland Creek, Black Canyon Creek, and lower reach of Turkey Creek. The guideline is to maintain 8" of stubble where sedges and rushes are the key species, and 12" where deergrass is the key species.

Application of standard management practices such as salting, herding, and controlling access to water to achieve proper distribution or lessen the impact on areas which are sensitive or are natural concentration areas will be applied by the permittee.

Protein, salt, and other supplements will not be placed within ¼ mile of water or any identified sensitive plant population. New improvements (e.g. pipelines, troughs, tanks, or fences) will be designed to avoid adverse impacts to any such populations.

Annual Operating Instructions will be prepared each year in cooperation with the permittee to allow for consideration of current allotment conditions and management objectives. This AOI will detail the current season's grazing schedule, the stocking level, the improvement maintenance needs, needed improvements, and the allowable use levels on key forage and browse species.

### C. Rangeland Improvement Program

Adaptive management would allow for the construction of rangeland improvements if they have been identified and are determined, through monitoring, to be necessary for achieving resource objectives. However, if some or all improvements are not implemented, the upper limits of permitted livestock numbers may not be achievable. In addition to the structural improvements included above in site-specific resource protection measures, the following improvements are authorized for construction:

1. Reconstruct 3 to 4 miles of the west allotment boundary fence within the Castle Creek Wilderness;
2. Establish a reference soil and vegetation monitoring enclosure in TES 275

in permits, AMPs and AOIs are being implemented (e.g. cattle numbers, on/off dates, rotation schedules, maintenance of improvements, mitigation measures).

*Periodic Monitoring of Short-term Indicators of Resource Conditions:* Short-term indicators of resource conditions such as forage utilization, residual forage, species composition, plant cover, frequency or density, and/or vegetative ground cover will be monitored on the allotment at key areas and at areas identified with site-specific resource concerns. Methods will include generally accepted monitoring protocols.

The purpose of periodic monitoring of short-term indicators is to determine:

1. If individual plants have had an opportunity to recover, grow and reproduce following grazing impacts.
2. If sufficient residual forage remains at the end of the growing season to provide for other resource values or requirements such as soil productivity, wildlife habitat, and dormant season use.
3. If maintenance or improvement of rangeland conditions are indicated.
4. If management adjustments are warranted for the following season to provide for the physiological needs of primary forage species and other resources identified as concerns.
5. If soils and riparian areas are maintaining or moving toward desired conditions.
6. If critical areas are moving toward desired conditions.

*Effectiveness Monitoring:* to evaluate the success of management in achieving the desired objectives will occur within key and critical areas or on permanent transects at an interval of 10 years or less. Initial baseline information will be collected on this allotment. Effectiveness monitoring may also occur if data and observations from monitoring of short-term indicators suggest a need for additional information.

### Permittee Review / Agreement

Reviewed by/ agreed to *Arnold L. Collins* Date *12/20/2014*  
Permittee

### Forest Officer Approval

Approved By *[Signature]* Date *1/6/15*  
Sarah E. Tomsky, Bradshaw District Ranger