

# Allotment Management Plan

## Walnut Grove

USDA Forest Service  
Bradshaw Ranger District, Prescott National Forest  
Yavapai County, Arizona

### Introduction

This Allotment Management Plan (AMP) is a direct result of the Environmental Assessment and subsequent Decision Notice/Finding of No Significant Impact (DN/FONSI).

The Walnut Grove Allotment is located on the Bradshaw Ranger District of the Prescott National Forest. The allotment is located in the southwestern portion of the District, approximately 14 miles southeast of Kirkland Junction, Arizona. The vegetation on the allotment consists of pinyon/juniper woodlands, semi desert grasslands, and chaparral, with riparian vegetation found along Milk Creek and Crooks Canyon drainage and at some spring sites. The allotment occupies approximately 8,400 acres and is comprised of two large pastures, the East and West Units.

The allotment extends from about 2 miles east of the Hassayampa River east to the top of Longfellow Ridge. Generally the allotment is 2 to 3 miles wide and 6 miles long and contains two pastures. The allotment straddles the lower four miles of Crooks Canyon plus two miles of Milk Creek into which the Crooks Canyon stream flows. Milk Creek is a major tributary to the Hassayampa River.

The elevation of the allotment averages from 4,000 feet at the point where Milk Creek leaves the allotment to 5,500 feet in the northeast corner. The southern 1/3 of the allotment is relatively flat and the upper 2/3 of the allotment is rather mountainous. All major drainages flow into the Hassayampa River via Crooks Canyon, Milk Creek, and Blind Indian Creek.

### Desired Condition & Resource Objectives

The desired conditions and resource objectives for resources and infrastructure on this grazing allotment, based on the Forest Plan and the work of the Interdisciplinary Analysis Team, include:

- rangeland management that can respond to local or national demands for livestock production while maintaining air, soil, and water resources at or above minimum local, State, or Federal standards (Forest Plan, pg. 11);
- range administration that provides for the maintenance of satisfactory rangeland management status with a static or upward apparent trend (Forest Plan, pg. 32);
- management of the grazing operations using a system that is responsive to changing climatic or environmental conditions;
- the maintenance of vegetation with mid- to high similarity to the potential natural plant community (PNC) providing for ecological functionality and resiliency following disturbance while sustaining long-term productivity of the land;
- the installation and maintenance of structural improvements, such as water-supply systems, that enhance management control and flexibility and allow for effective distribution of forage use;

- the maintenance of soils in satisfactory condition over the long-term with improvement shown in areas departing from satisfactory condition where livestock grazing is contributing to the condition;
- the maintenance of satisfactory conditions for water resources that meet total maximum daily load (TMDL) and other State water quality objectives;
- the maintenance of functioning spring-fed riparian systems, and saturated soils where potential exists, that support vegetation within site potential and provide habitat for riparian-dependent plants and animals while providing water sources for wildlife and livestock needs;
- the maintenance of fully functional riparian systems supported by herbaceous and multi-age woody vegetation, within site potential, that provides for geomorphically stable stream channels, banks, and habitat for riparian-dependent plants and animals (functional riparian systems support water quality and both hydrogeomorphic and biological attributes and processes);
- protection and preservation of important historic and cultural sites; and
- the maintenance of suitable habitats for Management Indicator Species, Migratory Bird Treaty Act species, Federally listed Threatened and Endangered species, Regional Forester Sensitive species, and for indigenous plant and animal species.

## **Grazing Management**

### Permitted Numbers, Season of Use, and Animal Months

<b>Permittee</b>	<b>Permit Type</b>	<b># of Livestock</b>	<b>Season of Use</b>	<b>Animal Months</b>
Stella Byrd Carter Trust	Term (10 years)	23 to 100 head Cow/calf pairs and bulls	Up to 182 days between Sept 1 – April 15	From 123 to 606 Animal Unit Months <sup>1</sup>

The period of grazing and the stocking numbers on NFS lands will be determined by monitoring, designated in the Annual Operating Instructions and authorized in the Bill for Collection.

The current grazing permit will allow for 100 cow calf pairs to run a two pasture rotation grazing system.

## **Grazing Management**

Livestock will be managed adaptively under a rotational grazing system. Adaptive management is designed to provide sufficient flexibility to allow livestock management to address changes in climatic conditions, seasonal fluctuations in forage production, and other dynamic influences on the ecosystem in order to effectively make progress toward or maintain desired conditions of the rangeland and other resources. Adaptive management will also include the implementation of resource protection measures.

<sup>1</sup> Animal-Unit-Month (AUM) is the amount of oven-dry forage required by one mature cow of about 1,000 pounds, either dry or with a calf up to six months of age, or their equivalent, for a standardized period of 30 animal-unit-days.

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  $\frac{1}{4}$  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.

## Allowable Use

Allotment Wide Measures: Grazing intensity guidelines will be applied across the allotment to provide rangeland managers with information needed to adapt management through adjustments, as may be needed, on an annual basis. Examples of appropriate grazing intensity and forage use guidelines for areas of the allotment that are generally described to be in satisfactory condition include:

- Conservative grazing intensity (31-40% use) on key herbaceous species during the spring and summer growing periods (typically April 1 to September 30). Note that for this allotment, grazing may only occur between September 1<sup>st</sup> and April 15<sup>th</sup>, primarily during the dormant season.
- Moderate grazing intensity (41-50% use) on key herbaceous species during the dormant season;
- Moderate grazing intensity (50-60% leaders browsed) on key upland woody species;
- Minimum stubble height on key riparian herbaceous species, four to six inches where sedges and rushes are key and eight inches where deergrass is key;
- Up to 20% use on key woody species within riparian areas.

Grazing intensity will be determined using key herbaceous and browse species within key areas. Guidelines would be adjusted if periodic monitoring indicates that desired resource conditions are not being maintained.

Site-specific Measures: The following measures will be applied in areas of concern where current conditions are not meeting desired conditions, and management objectives have been established to measure progress towards meeting desired resource conditions:

- Incidental use<sup>2</sup> only, regardless of season, on unsatisfactory soil sites in the West Pasture at TES 370, 406, and portions of 481 and unsatisfactory RMS areas with a downward trend that are currently TES 370 and 406 in the West Pasture.
- Maintain minimum stubble heights on key herbaceous species at riparian and spring areas in partially functional status that includes Milk Creek, Crooks Canyon, and Carter Spring in the West Pasture. The guideline is to maintain eight inches where sedges and rushes are key and 12 inches where deergrass is key;
- Apply 5 years of livestock distribution techniques and grazing intensity guidelines in the West Pasture. After the 5-year timeframe, if the attainable level of progress toward desired vegetative condition is not shown, one to three years of grazing rest will be implemented for the West Pasture. The attainable level of progress in TES 370 will be

<sup>2</sup> Incidental Use targets the lower range of the light use (0-30%) category in all seasons by applying such practices as herding or by limiting where livestock attractants such as salt or water are placed relative to the area of concern. Adaptive management methods and practices to achieve this will be based on site-specific allotment management scenarios.

shown by comparing the ungrazed exclosure area to adjacent grazed sites. If progress towards desired conditions is not shown in the absence of grazing, this timeframe will need to be adjusted. See page 12 of the EA in the section entitled *Attainability of Resource Management Objectives* for more information on the grazing exclosure planned for TES 370.

- Apply 2 years of livestock distribution techniques to reduce impacts at Carter Spring. After the 2-year timeframe, if progress toward desired condition is not shown, a fence will be constructed to protect the water influenced area of the spring system. This fence will be configured to provide livestock water outside the fenced area.

The herbaceous plant utilization levels above represent the percentage of last season's growth, if grazed during the dormant season, or the percentage of the current season's growth, to date, if grazed during a growing period (relative or seasonal utilization). The level of use on a pasture at the time livestock are removed is recognized as "seasonal use", not utilization. Utilization should be measured at the end of the growing season.

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.

## Rangeland Improvement Program

Construction of New Range Improvements: 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. Heritage surveys of proposed range projects that are scheduled to be implemented within the next 2 years have been conducted and the proposed projects will have a no effect.

- Construct a fence around Ross Spring to prevent livestock access to the spring source in order to improve riparian herbaceous vegetation and channel stability. Develop the spring and provide livestock water outside the riparian zone.
- Modify the existing Ross Flat watershed improvement exclosure fence by adding  $\frac{1}{2}$  to 1 mile of new fence, to continue to protect compacted and eroding soil sites and provide livestock water.
- Increase water storage capacity at Deer Spring by adding a 3,000 to 5,000 gallon water storage tank.
- Reconstruct the South Trick Tank water system.
- Reconstruct the West Trick Tank. If resource objectives have not been met in the West Pasture before reconstruction is complete, additional measures such as a control valve or fence will be added to control livestock access to water in this area.
- Increase water storage capacity by adding a 3,000 to 5,000 gallon storage tank at Deer Trick Tank and reconstruct the collection apron.
- Reconstruct and maintain existing erosion control structures at Ross Flat (Forest Service Responsibility).
- Reconstruct the Upper Tank in the East Pasture.

In the event that the above resource protection measures do not accomplish site-specific resource objectives, additional optional measures may be implemented. These optional measures will be

designed to address site-specific resource concerns and may include, but are not limited to, such things as temporary fencing, electric fencing, drift fences, additional livestock enclosures, temporary pipelines and water troughs, reconstruction of existing spring improvements, and construction of new improvements such as spring boxes and water gaps.

## **Maintenance Responsibility**

The Term Grazing Permit includes a list of all improvements which the permittee will continue to maintain at a level that effectively provides for their intended uses and purposes. Range improvements will be inspected periodically during the term of the permit to document condition.

Damage resulting from big game, wind, other acts of nature, or human caused actions, must be repaired in a timely manner so as to ensure the integrity of the structures.

All maintenance of exterior fences must be completed prior to turn on each year. (*It is the responsibility of the permittee to ensure that the necessary coordination occurs between adjacent allotments to ensure maintenance is completed in a timely manner*).

Annual Operating Instructions (AOIs) will identify range improvements in need of maintenance. Existing improvements may be replaced when their conditions warrant.

Access to Improvements: Authorization for cross-country motorized travel is provided for the permittee to administer the livestock operation and maintain improvements under the terms and conditions of the Term Grazing Permit.

Annual authorization for actions implementing management direction in the Allotment Management Plan (AMP) will be included in the Annual Operating Instructions (AOI), such as a description of the anticipated level of cross-county travel, travel needed for improvement maintenance, new improvement construction, or reconstruction of existing improvements.

## **Drought Management**

Perennial grasses and major browse species need deferment/rest in order to provide time to recover from drought induced stress. Even when rested or deferred, if adequate precipitation is not received, recovery may not be adequate for livestock use.

Move cattle when utilization in pastures is met. If removal of livestock is necessary, they may be authorized to return to the allotment once conditions improve; meaning sufficient recovery from the effects of drought stress has occurred and there has been enough herbaceous production to support livestock numbers. Potential return of livestock will be evaluated no earlier than the summer growing season.

## **Monitoring and Evaluation**

Implementation Monitoring: This monitoring will be conducted on an annual basis and will include such things as livestock actual use (# of head, # of months) and scheduled and unscheduled inspections to ensure that all livestock and grazing management measures stipulated 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.

The key area concept is based on the premise that no range of appreciable size will be grazed uniformly (Holechek, Pieper and Herbel, 1998). When key areas are “properly” used there may be substantial areas that are used more or less than the key areas, including some that will not be used at all. Forest Service personnel can work with the permittee in selecting these areas.

*(Monitoring of allowable use on key forage species in key areas is the joint responsibility of the Forest Service and the permittee. Although the Forest Service will make every effort to assist the permittee in ensuring compliance with standards, the permittee has the ultimate responsibility for ensuring that the allowable use standards are met).*

Periodic field checks will be conducted by the Forest Officer to assess vegetation health and trends as well as soil function to identify needed adjustments in season of use and/or livestock numbers.

Field Checks will include informal inspections, formal inspections, and permittee compliance monitoring.

Informal Inspections: Informal inspections conducted by the Forest Officer will be made as the opportunity arises, such as when the Forest Officer is working in the area or is passing through the allotment.

The permittee will be notified by telephone of any significant observations needing immediate attention. Significant observations will be documented in writing by the Forest Officer and a copy of the inspection notes will be sent to the permittee in a timely manner.

Formal Inspections: Formal inspections conducted by the Forest Officer will be made as time and competing duties allow with an attempt to inspect each of the pastures.

The permittee will be requested to accompany the Forest Officer during the inspections. Significant findings from these inspections will be documented in a letter or inspection report sent to the permittee in a timely manner.

Permittee Compliance Monitoring: The permittee will:

- Monitor the allotment continuously throughout the grazing season to determine current resource conditions and to ensure the terms of the permit are being met.
- Document all findings through notes, photographs, or other means decipherable by the Forest Officer
- Share monitoring information with the Forest Officer, and
- Coordinate with the Forest Officer to resolve any problems that arise.

Effectiveness Monitoring: The permittee is encouraged to participate in any effectiveness (e.g. long term condition and trend) monitoring and evaluation conducted on the allotment. This type of monitoring evaluates the success of management in achieving the desired objectives within key and critical areas or on permanent transects at an interval of 10 years or less. Effectiveness monitoring may also be conducted if data and observations from implementation monitoring indicate a need.

Both qualitative and quantitative monitoring methods will be used in accordance with Interagency Technical References, the Region 3 Rangeland Analysis and Management Training Guide, and the Region 3 Allotment Analysis Handbook.

### Permittee Review / Agreement

Reviewed by/ agreed to Trapp Carter Date 5-15-14  
Permittee

### Forest Officer Approval

Approved By James Gilsdorf Date 3/10/14  
James Gilsdorf, Acting, Bradshaw District Ranger