

**ALLOTMENT MANAGEMENT PLAN**

**FOR THE**

**SAWTELLE ALLOTMENT**

**SIERRA VISTA RANGER DISTRICT**

**CORONADO NATIONAL FOREST**

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## **INTRODUCTION**

The Sawtelle Allotment is permitted to James D. and Pamela J. Milligan and managed by Dan Milligan. The Milligans have held the Sawtelle term grazing permit since 1993. In 2007, an environmental analysis (EA) was completed. The EA and Decision Notice (DN) are the guiding documents for this allotment management plan (AMP).

The Sawtelle Allotment is located immediately south of Canelo, Arizona, and approximately 15 miles southeast of Sonoita, Arizona, on the west side of the Huachuca Mountains. Elevations range from 5000–5800 feet. The allotment is about six miles long and about a mile wide for most of that distance. Turkey Creek runs through the middle of the allotment, surrounded by private property for most of its length. Topography consists of mostly east-west ridges and their slopes and bottoms. The allotment is bordered on the north by the Canelo and Chuney Allotments, on the east by the Manila and Lyle Canyon Allotments, on the south by the Collins Canyon Allotment, and on the west by the O'Donnell and San Rafael Allotments. The ranch consists of 4825 acres on the Coronado National Forest, 4234 of which are capable and suitable for grazing.

Most of the Sawtelle Allotment is in good ecological condition, although plant species composition is below potential on several ridges due to dense manzanita stands. There is obligate riparian vegetation in Turkey Creek in Mountain and Silver Tank Pastures, and in the short stretch of Algerita Canyon in Bull Pasture.

The ranch is managed as a cow-calf operation under a ten-pasture deferred rotation grazing system. Historically, the ranch has relied on private land, and use on the allotment has been much less than permitted. The permittee is considering transitioning to a cow/calf/yearling operation, which should increase use on the Forest significantly. A term grazing permit was issued in 2007 for 1346 Animal Unit Months (AUM), equivalent to 85 cow/calf pairs yearlong. Numbers authorized in annual operating instructions (AOI) may fluctuate from year to year based on such variables as precipitation patterns and resulting forage production, changes in the grazing system, potential impacts of wildfire, and the permittee's performance in implementing proper grazing practices as indicated in the AMP and AOI.

## **GOALS & OBJECTIVES**

The Coronado National Forest Land and Resource Management Plan (LRMP, page 10) contains the following goals for the range program on the Forest:

- To restore rangeland to at least moderately high ecological condition (70% to 75% of potential production, fair range condition) with stable soil and a static-to-upward trend.
- Produce livestock products consistent with other resources and uses.
- Eliminate grazing from areas not capable of supporting livestock without significant detriment to range or other resources.
- Balance permitted grazing use with grazing capacity.

- Provide habitat for wildlife populations consistent with the goals outlined in the Arizona Department of Game and Fish Comprehensive Plans and consistent with other resource values.
- Provide for ecosystem diversity by at least maintaining viable populations of all native and desirable nonnative wildlife, fish and plant species through improved habitat management.
- Improve the habitat of and the protection for local populations of Threatened and Endangered species to meet the goals of the Endangered Species Act of 1973.
- Provide a favorable flow of water in quantity and quality for off-forest users by improving or maintaining all watersheds to a satisfactory or higher level.
- Allow the use of available National Forest lands for appropriate public or private interests consistent with National Forest Policies.

The grazing permit and allotment management plan for the Sawtelle Allotment support these goals by providing for the following specific objectives, which constitute the desired condition in the analysis area:

- Grazing activities contributing to impaired soil quality are corrected through improved distribution.
- Ecological condition as expressed by the number of acres in fair or better condition is maintained or improved.
- Range production and movement toward site potential for each soil/vegetation site is increased.
- All grazing improvements on the Sawtelle allotment are in proper working order.
- Develop reliable upland waters to improve livestock distribution and pasture reliability.
- Provide for adequate rest periods in all pastures.
- Livestock use is balance with existing capacity.

The purpose of this AMP is to describe on-the-ground management practices which will achieve the above goals and objectives.

#### **ALLOTMENT MANAGEMENT PLAN**

This AMP is part of the terms and conditions of the Forest term grazing permit. The AMP incorporates an adaptive management strategy, whereby, if monitoring indicates that desired conditions are not being achieved, the Forest Service and permittee will cooperatively modify management practices. Modifications may include the number of livestock authorized in the AOI, dates for grazing, the class of animal, pasture rotations, and grazing systems. Any changes will not exceed the limits for timing, intensity, duration and frequency analyzed in the EA.

**GRAZING STRATEGY.** The permittee and the Sierra Vista Ranger District Range Staff concur in continuing the current deferred rotation system guided by an adaptive management strategy that responds to changing conditions. The number of cattle, season

of use and pasture rotations will vary from year to year depending on forage and water availability, resource conditions and management objectives. Forage utilization will be managed at a level corresponding to light to moderate intensity (maximum of 45% annual utilization in key areas) in order to provide for grazed plant recovery, increased herbage production and retention of herbaceous litter to protect soils. Pastures will receive full growing season rest after use.

Records of livestock numbers, movement dates, shipping records, and rainfall dates and amounts will be kept by the permittee and will be provided to the USFS annually.

**MITIGATION.** To mitigate resource impacts, the following measures will be implemented. These measures have been used on previous projects and are considered effective at reducing environmental impacts. They are consistent with applicable Forest Plan standards and guidelines, Best Management Practices and the terms and conditions and conservation measures of existing biological opinions. Implementation of the mitigation measures, in combination with project design criteria, should preclude the occurrence of potentially significant environmental impacts.

**Soil, Water and Vegetation.** The objective is to mitigate effects of livestock grazing management and to assure that management is responsive to changing resource conditions. The objective will be accomplished through the use of Best Management Practices and adaptive management. Practices include, but are not limited to the following.

- Utilization of key upland herbaceous forage species in key areas will be managed to achieve the goal of light to moderate grazing as a pasture average. The objective is to protect plant vigor, provide herbaceous residue for soil protection and to increase herbage producing ability of forage plants. A utilization guideline of 45% use of key species in key areas will be used to achieve this objective.
- The Forest and permittees will jointly prepare annual operating plans that consider current conditions and management goals. Periodic field checks including stock counts, range readiness and utilization monitoring will be used to identify needed management adjustments. The objective is to assure achievement of resource and management objectives.
- Management practices will be used to achieve proper distribution or lessen the impact on sensitive areas. Practices include herding, salting and controlling access to waters. Salt will be placed on good feed, one quarter to one half mile from waters and salting locations will be moved annually. Placement of liquid supplement will require prior approval of the District Ranger.
- No hay or bulk feed will be placed on Forest lands in order to minimize the introduction of weed seeds.
- Manzanita thinning will not be conducted in wet conditions to avoid soil disturbance and compaction. Treatment areas will be less than 20% slope and buffers will be left around all primary drainages.

**Wildlife and Plants.** The objective is to mitigate impacts to wildlife and sensitive plants from livestock grazing and from disturbance associated with construction of range facilities.

- All water developments will include wildlife access and escape ramps.
- All new fencing will be built to Forest Plan standards (Forest Plan, p. 35) to provide for wildlife passage through the fence. At a minimum, this will be a 4-strand fence with smooth bottom wire 16 inches off of the ground and a total height of 42 inches or less.
- All proposed range facilities will be surveyed for threatened, endangered or sensitive species prior to any ground-disturbing activities. Facilities will be designed and constructed to have no adverse effect on listed species.
- Range construction projects will be designed to avoid the destruction of agaves. If impacts to agaves are unavoidable, the Forest will insure that no more than 1% of agaves within 800 meters of a project are impacted.
- Within areas meeting the definition of high quality Mearns' quail habitat, herbaceous vegetation will be managed to maintain a minimum of 6 inches of herbaceous stubble height, which is generally interpreted as less than 45% utilization of key herbaceous species. The objective is to provide herbaceous vegetation as cover for quail and other wildlife.
- Stock pond maintenance activities will be conducted in compliance with the Forest's stock pond management and maintenance guidelines for the Sonoran Tiger Salamander and the Chiricahua leopard frog in order to reduce effects to these species as a result of stock pond maintenance activities. The objective is to maintain occupied habitats for the species

**Heritage Resources.** The objective is to protect heritage resources (historic and prehistoric sites) from impacts caused by range construction projects or livestock concentration.

- All proposed range facilities will be surveyed for heritage resources prior to any ground-disturbing activities. Facilities will be built or modified to avoid construction impacts and located to avoid concentrating livestock on identified heritage sites.
- If unrecorded sites are discovered during the course of project implementation, activities will cease and the forest Archeologist will be notified.
- No salting will occur within or adjacent to identified heritage sites

## **LIVESTOCK DISTRIBUTION**

Use of salt, protein, and other nutritional supplements are encouraged for livestock health and to improve livestock distribution. All supplements will be placed on forage, no less than ¼ mile from water, and away from natural concentration areas such as drainage bottoms, saddles, roads and trails. Supplement locations will be rotated periodically. No hay or bulk feed may be fed on Forest Lands.

- Water may be turned off to discourage livestock use in a portion of a pasture, but must be made available again once livestock leave the pasture.
- Water lots around dirt tanks will be maintained in satisfactory condition to control livestock access to water.
- Regular herding of livestock will be used to improve livestock distribution.

## **RANGE IMPROVEMENTS**

Maintenance of all structural improvements listed in the term grazing permit is the responsibility of the permittee. Likewise, the maintenance of any new improvements as a result of this plan will be the responsibility of the permittee. All improvements must be kept in a serviceable condition.

The DN authorizes the construction of several improvements:

1. Extend a pipeline from Korn Well to a new storage and two troughs in Becker Pasture. This will improve livestock distribution and increase the reliability of pastures and rotations.
2. Extend a pipeline from Rogers Well to a new storage and trough in Howell Pasture to improve livestock distribution and increase pasture and rotation reliability.
3. Extend a pipeline from East Pasture on the Canelo Allotment to Highway Pasture, also to benefit livestock distribution and pasture reliability.
4. Re-align the southern fence in Bull Pasture to exclude riparian areas in Algerita and Lyle Canyons. This will improve livestock distribution and improve riparian condition by reducing use in bottoms.
5. Cross fence Mountain Pasture to increase management flexibility and opportunities for pasture deferment.

These improvements are listed in their order of priority. Not all projects will necessarily be implemented, depending on the success of management practices and funding availability. The projects are expected to be completed over a period of years. In addition to new improvements, replacing the Silver Tank Pipeline is a high priority, including the installation of a 10,000 gallon storage tank and a trough, to provide reliable water to Mountain Pasture. A storage tank should be installed on Bull Spring prior to re-aligning the Bull Pasture fence to ensure reliable water in Bull Pasture. The Forest also plans to mechanically thin dense manzanita stands on the uplands in Main House, Whitney, Silver Tank, Becker, Howell, and Highway Pastures to reduce the fuel load for potential catastrophic wildfires and increase herbaceous production.

## **FIRES**

One of the goals of that evolved from the San Rafael Valley ecosystem management planning effort was to re-establish the role of fire on the landscape. Naturally ignited wildfires will be aggressively fought when they endanger life or property. Fires on other portions of the allotment will be fought with a containment strategy, being allowed to burn to the nearest roads or natural barriers. When planning prescribed fires, the permittee will be consulted, so that they will have time to make adequate preparations for the livestock operation, and so the rotation can be altered to allow fine fuels to accumulate. Burned areas will be allowed to rest for 1-2 growing seasons to ensure adequate recovery before livestock will be allowed access.

## MONITORING

The objective of monitoring is to determine whether management is being properly implemented and whether the actions are effective at achieving or moving toward desired conditions. Permittees are encouraged to participate in the monitoring activities.

**Effectiveness monitoring** includes measurements to track condition and trend of upland and riparian vegetation, soil, and watersheds. Monitoring will be done following procedures described in the Interagency Technical Reference<sup>1</sup> and the Region 3 Rangeland Analysis and Training Guide.<sup>2</sup> These data will be interpreted to determine whether management is achieving desired resource conditions, whether changes in resource condition are related to management, and to determine whether modifications in management are necessary. Effectiveness monitoring will occur at least once over the ten-year term of the grazing authorization, or more frequently if considered necessary.

Long term trend monitoring will include, but is not limited to measurements to track upland range condition and watershed condition (hydrologic function). Techniques may include, but are not limited to dry weight rank, comparative yield, pace transects, Parker 3-step, repeat photography, grazed plant count, Grazing Response Index and clipping and weighing.

**Implementation monitoring** will occur yearly and will include such things as inspection reports, forage utilization measurements in key areas, livestock counts and facilities inspections. Utilization measurements are made following procedures found in the Interagency Technical Reference<sup>3</sup> and with consideration of the Principles of Obtaining and Interpreting Utilization Data on Southwest Rangelands.

Utilization will be monitored on key forage species, which are native perennial grasses that are palatable to livestock. Utilization will be measured after the growing season; however, grazing intensity will be monitored throughout the grazing period in order to practice adaptive management and make necessary management changes needed for plant development and recovery. At a minimum monitoring will include use in key areas, but may include monitoring outside of key areas. The Sierra Vista Ranger District Staff Officer and the permittee will be responsible for monitoring livestock grazing utilization. Over time, changes in resource conditions or management may result in changes in livestock use patterns. As livestock use patterns change, new key areas may be established and existing key areas may be modified or abandoned in cooperation with the permittee.

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<sup>1</sup> Sampling Vegetation Attributes, Interagency Technical Reference. 1996. Cooperative Extension Service, USDA Forest Service and Natural Resources Conservation Service, and USDI Bureau of Land Management.

<sup>2</sup> Rangeland Analysis and Management Training Guide. 1997. USDA Forest Service, Southwestern Region.

<sup>3</sup> Utilization Studies and Residual Measurements. Interagency Technical Reference. 1996. Cooperative Extension Service, USDA Forest Service and Natural Resources Conservation Service, and USDI Bureau of Land Management. Revised 1999.