Thurber
Allotment Management Plan

Nogales Ranger District
Coronado National Forest
Santa Cruz County, Arizona

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Introduction

This allotment management plan (AMP) has been prepared to identify management strategies that meet the long-term goals and objectives identified for the Thurber allotment. A National Environmental Policy Act (NEPA) analysis of ongoing grazing on the Thurber allotment was completed in 2007, and a Decision Notice and Finding of No Significant Impact authorizing continued grazing was signed by the District Ranger on January 14, 2008. This AMP implements the NEPA decision and is intended to promote progress toward desired conditions. This AMP is part of the grazing permit for the Thurber allotment.

The allotment consists of twenty-one pastures, in which all are completely made up of forest lands. The allotment is currently run as a cow-calf, deferred rotation with grazing occurring throughout the year on forest lands. This management strategy has been in place since 1989. The permittee has done a good job managing this allotment as can be seen by the improving resource conditions and utilization not exceeding allowable levels.

The west boundary of the allotment is the ridge above Barrel Canyon. The east boundary is Highway 83 and sections of private property. The northern boundary runs along the ridges just north of Oak Tree canyon, and the Southern boundary is Ophir Gulch. The allotment contains 4,490 acres of which 4,480 are considered capable for grazing.

GOALS AND OBJECTIVES

The Coronado Land and Resource Management Plan, and the Forest Plan identifies the following goals for the range, wildlife, soil, water and lands programs 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 and New Mexico 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 non-native wildlife, fish and plant species through improved habitat management.
- Improve the habitat of and protection for local populations of Threatened and Endangered species to meet the goals of the Endangered Species Act.
- 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 allotment management plan for the Thurber Allotment will support these goals by providing for the following specific objectives, which constitute the desired condition on the allotment:

- Grazing activities contributing to impaired soil quality are corrected by improving livestock distribution on the allotment.
- Ecological condition as expressed by the number of acres in fair or better condition is maintained or improved.
- All grazing improvements on the allotment are in proper working order.

The purpose of this allotment management plan is to describe on-the-ground management practices, which will achieve the above goals and objectives.
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ALLOTMENT MANAGEMENT PLAN

Management Strategy

Adaptive management will be the guiding strategy on the Thurber Allotment. This approach is intended to provide flexibility to adapt management to changing circumstances and resource conditions. If monitoring indicates that management objectives are not being achieved, management will be modified in cooperation with the permittee. Changes may include administrative decisions, such as the specific number of livestock authorized annually, specific dates for grazing, class of animal or modifications in pasture rotations, but such changes will not exceed the limits for timing, intensity, duration and frequency defined for the allotment.

Implementation of this AMP will be documented in the Annual Operating Instructions (AOI) developed jointly by the Forest Service and the permittee. The AOI will set forth the maximum permissible grazing use authorized for the upcoming grazing season; the planned sequence of grazing; improvements to be constructed, reconstructed, or maintained; allowable use or other standards to be followed by the permittee; and required monitoring for the grazing season.

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, increase herbaceous residue needed for soil protection and to increase herbage producing ability of forage plants. A utilization guideline of 30-45% use of key species in key areas will be used to achieve this objective.

Grazing Strategy

The proposed action is a continuation of current management. Authorized HMs would stay the same. Livestock grazing would occur on a deferred rotation. This will provide for growing season rest for each pasture periodically. Salt and supplement will be placed away from water and low areas where cattle tend to congregate. Salt and supplement areas will be moved often to improve livestock distribution. Key areas for future monitoring activities will be selected and guidelines for use in the allotment will be established annually during development of Annual Operating Instructions (AOI) with the permittee. Livestock rotation will be accomplished through permittee and agency designed rotation schedules.

Target utilization levels will be 30 to 40% with a maximum allowable utilization of 45%. Pasture moves will be primarily controlled through monitoring of utilization levels, available water and ecological conditions. The permitted livestock level will be 221 CYL.

Terms and Conditions from Biological Opinion

The following measures will be implemented to minimize resource impacts. These practices are consistent with applicable Forest Plan standards and guidelines and the terms and conditions and conservation measures of U.S. Fish and Wildlife Service Biological Opinions.
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Wildlife

Formal consultation with the U.S. Fish and Wildlife Service (USFWS) was completed on August 23, 2006. The following terms and conditions and/or species-specific conservation measures were stipulated in the consultation and are included as mitigation measures.

The following mitigation measures have been developed to reduce or eliminate potential wildlife impacts:

- All range construction projects will be designed to avoid the destruction of agaves and the disturbance of lesser long-nose bat roosts. If impacts to agaves are unavoidable, the Forest will ensure that no more than 1% of agaves within 800 meters of the project are impacted.

- Lesser long-nosed bat. Range construction projects, if proposed in the future, will be designed to avoid the destruction of agaves and the disturbance of lesser long-nose bat roosts. If impacts to agaves are unavoidable, the Forest will ensure that no more than 1% of agaves within 800 meters of the project are impacted.

- Chiricahua leopard frog. Terms and conditions to avoid the take of Chiricahua leopard frog will be implemented through the Forest's Chiricahua Leopard Frog Habitat Management Guidelines (copy attached). These measures include requirements to survey for and salvage frogs during stock pond cleaning activities; measures designed to minimize the introduction of non-native species or chytrid contamination into occupied sites; measures to reduce direct mortality and damage to aquatic cover as a result of livestock impacts and the requirement to monitor and report incidental take. The Forest will continue to inventory stock ponds within the range of the Chiricahua leopard frog with the objective of identifying sites where bank line vegetation can be enhanced to benefit frog habitat. The Forest and the permittee will cooperate to evaluate stock ponds for the feasibility of partially fencing tanks (or completely fencing tanks in the case of double tanks, or if upland water is developed in the vicinity) for habitat enhancement of aquatic species.

Other Mitigation Management Practices

- All water developments will be equipped with wildlife access and escape ramps, and water will be available in all troughs whether livestock are present or not, unless water has been turned off to reduce livestock impacts in a particular portion of a pasture, or to prevent damage from freezing.

- All new fencing will be built to Forest Plan standards that provide for wildlife passage through the fence. At a minimum, this will be a 4-strand fence with a smooth bottom wire 16 inches off the ground and a total fence height of 42 inches or less.

- The following Best Management Practices for grazing (FSH 2209) apply: Annually prepare an operating plan with the Permittee to allow for current allotment conditions; make periodic field checks to identify needed adjustments in season of use and livestock numbers, including stock counts, forage utilization, assessment of rangelands to verify soil and vegetative condition and trend; and use necessary techniques to achieve proper distribution or lessen the impact on areas which are sensitive or will naturally be overused.

Heritage Resources

The objective is to protect heritage resources (historic and prehistoric sites) from direct or indirect impacts caused by ground-disturbing activities associated with the construction of range facilities and to monitor the effects of cattle grazing on sites to ensure that adverse effects are not occurring. In general, these measures include the following:
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- All new range facilities will be surveyed by qualified personnel for heritage resources prior to any ground-disturbing activities. Facilities will be built or modified to avoid impacts to sites. If unrecorded sites are discovered during the course of project implementation, activities will cease and the Forest or District Archeologist will be notified.
- New range facilities will be located so as to minimize disturbance by livestock on identified heritage resource sites.
- No salting will occur within or adjacent to identified heritage sites.
- If impacts from grazing (e.g. excessive trampling, cattle rubbing against and knocking down standing features) are occurring to heritage sites, measures will be taken (e.g. fencing) to protect them.

Livestock Distribution Aids

- 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, at least ¼ mile from water, and away from natural concentration areas such as drainage bottoms, saddles, roads, and trails. District Range Staff can make exceptions concerning placement of supplements. Permittee will contact district range personnel, before placing supplements outside of the above direction. Supplement locations will be rotated periodically. No hay or bulk feed may be fed on Forest Lands. Distribution of livestock within each pasture will attempt to minimize concentration of animals and localized over utilization.
- Supplements will be packed into remote country when necessary.
- Water may be turned off to discourage livestock use in a portion of a pasture.
- Regular herding of livestock will be used to improve livestock distribution.

Range Improvements

- No new range improvements are planned for this allotment at this time. If new facilities are identified in the future, construction will comply with the management practices identified above.
- Maintenance of all structural improvements listed in the term grazing permit is the responsibility of the Permittee. All improvements must be kept in a serviceable condition. The Forest Service will assist in supplying materials if budgets allow.

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. 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 and the Region 3 Rangeland Analysis and Training Guide. These data are

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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 permit, or more frequently if deemed necessary.

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 and with consideration of the Principles of Obtaining and Interpreting Utilization Data on Southwest Rangelands\(^3\).

Utilization will be monitored on key forage species, which are native perennial grasses that are palatable to livestock. At a minimum monitoring will include use in key areas, but may include monitoring outside of key areas. The Nogales District Range Staff Officer and the permittees 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(s).

Permittees will be encouraged to participate in monitoring activities. Records of livestock numbers, movement dates and shipping records will be kept by the permittees and will be provided to the District Range Staff annually.

**Flexibility**

Minor adjustments to this plan in response to changing weather, prescribe burns, etc., will be made through agreement between the District Ranger and the Permittee and will be appropriately documented. Significant changes will require a written amendment to this plan.

**Administrative Decisions**

The District Ranger will determine the class and number of permitted livestock, and season of use. This determination will be based on resource issues, management objectives, and the management goal. The District Ranger will review these decisions periodically and make adjustments necessary to guarantee consistency with the Coronado National Forest Management Plan, this allotment management plan, or any new legal requirements.

\(^3\) Principles of Obtaining and Interpreting Utilization Data on Rangelands. 2007 Arizona Cooperative Extension