USDA

United States Department of Agriculture

Forest Service

January 2015

Allotment Management Plan

Radium Allotment

Globe Ranger District
Tonto National Forest
Arizona

This Allotment Management Plan implements direction established in the October 2008 Decision Notice for Radium Allotment. This Allotment Management Plan is made part of your Term Grazing Permit in accordance with Section 8(a) Part 2 of that permit.

Prepared By:

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Andrea Jamie Wages
Rangeland Management Specialist

Date

Agreed to By:

Ben DeMotte Tyler Dodd — 10-16-17

Radium Cattle Co.
Permittee

Date

Approved By:

Mark Sando — 10/23/17

Mark Sando
District Ranger
Globe Ranger District

Date

Contents

Introduction

The project area is located 3 miles north of Globe-Miami, Arizona. The allotment is bordered on the western edge by Pinal Creek and to the Northeast by the Apache Peaks within the Globe Ranger District, Tonto National Forest, Arizona.

In October 2008, Walter Johnson signed as Acting District Ranger, a Decision Notice and Finding of No Significant Impact for Alternative 2.

Background

Grazing complex does not contain any designated Wilderness areas or any areas designated as Roadless, or Inventoried Roadless areas. None of the analysis area contained any segment of streams that were considered potential for wild scenic or recreational rivers designated in the Preliminary Analysis of Eligibility and classification for wild/scenic/recreational river designation (USDA, 1993).

Allotment Goals and Objectives

Tonto NF Plan, as amended, identifies the following goals and objectives for range, wildlife, riparian, soils, and water programs on the Forest:

- Maintain a minimum of 30% effective ground cover for watershed protection and forage production especially in primary wildlife forage producing areas. Where [presently] less than 30% exists, it will be the management goal to obtain a minimum of 30% effective ground cover (Page 40-1)
- Forage use by grazing ungulates will be maintained at or above a condition which assures recovery and continued existence of threatened and endangered species (Page 42
- Provide wildlife access and escape ramps on all livestock and wildlife water developments (Page 42)
- Manage riparian areas to the level needed to provide protection and improvement (Page 42-2)
- Manage for a variety of renewable natural resources with primary emphasis on wildlife habitat improvement, livestock forage production, and dispersed recreation. Watersheds will be managed so as to improve them to a satisfactory or better condition. Improve and manage the included riparian areas (as defined by FSM 2526) to benefit riparian dependent resources (Page 193)
- Manage suitable rangelands at Level D (Page 195). Tonto NF Plan defines Level D as FSM 2550.3 policy states "Manage forest and rangelands in a manner that will improve soil productivity". FSM 2521.03 objectives state "Manage terrestrial ecosystems and NFS watershed to protect soil productivity and hydrologic function. Implement soil and water conservation measures with management activities to maintain satisfactory or optimum watershed conditions."

Adaptive Management

If monitoring indicates that goals and objectives are not being achieved, changes in specific grazing dates, class of animal, timing, intensity, duration and frequency will be used to modify management.

Duration and timing of grazing: The sequence and timing of pasture moves will be adjusted annually and documented in the annual operating instructions. Management may be adjusted through the use period based on monitoring of range readiness, ecological condition, and grazing impacts.

Intensity of grazing: Consistent patterns of utilization in excess of 30-40% would be used as a basis to modify management practices or reduce livestock numbers in subsequent grazing years.

Livestock adaptive management will be based on annual variation in precipitation while maintaining a viable livestock operation. These limits set standards that will be monitored throughout the year to determine if annual authorized numbers prescribed meet goals and objectives. Precipitation, specifically time and intensity, drives much of our rangeland perennial and annual plant production. Overall rain amounts will be used in conjunction with monitoring data such as plant vigor, health, diversity and occurrence in determining if desired conditions are met.

If additional tools (i.e. new water developments) are needed to mitigate or enhance effects of livestock grazing and management, those tools will be assessed as a supplement to this analysis. Tonto National Forest Plan is scheduled to be revised in the future. Change to Tonto National Forest desired conditions and objectives may require modification to AMP.

At annual operating instruction meetings, permittee, range specialists and other cooperative personnel will discuss any critical factors that may be affecting multiple use, including livestock management. This group must focus on defining criteria, specific to these factors, that move management toward desired goals and objectives. Instructions will include these discussions, but final determination will be made by Forest Official in charge.

Current Management Strategies

Term Grazing Permit numbers

139, up to 435 if monitoring indicates	Bulls, cows, cows with calves	3/1 through 2/28
111	Yearlings	1/1 through 5/31

Initial stocking rates will be for 139 head of cattle. Monitoring indicates that current levels

are appropriate stock rates. More information and monitoring will be collected to determine if permitted numbers are appropriate. Further evaluation that compares actual use with forage use and other effects of livestock grazing will be used along with ongoing monitoring to refine permitteed use levels.

An increase of up to 250 cattle year long is authorized for 3 years through 2017. Monitoring will indicate if these levels are appropriate and, if so, permitted numbers may be increased.

Pasture Rotation

Use on the allotment will be authorized year long as deferred rotation to ensure that each pasture receives periodic rest and that no pastures are grazed at the same time of year in consecutive years. Use on the allotment may be season in drought years when forage and water avilability is limited.

The sequence and timing of pasture moves will be set annually and adjusted through the use period based on monitoring of range readiness, ecological condition, and grazing impacts. If coservative levels of 30-40% are reached before scheduled move dates, livestock will be moved to next scheduled pasture. If all pastures have been utlized before end of grazing season, livestock will be removed from allotment until the start of next grazing season. Regrazing of pastures during the same grazing year will not be scheduled.

Livestock Distribution Aids/Animal Husbandry

Practices/Aids to achieve proper distribution will be implemented, including herding, salting, and water distribution.

Herding and proper water distribution is an essential tool for moving livestock to areas of low use and away from sensitive areas, such as riparian areas.

Salt or other supplements will be placed no closer than ¼ to water, in areas of low use of forage, and those locations will be moved annually. Hay or bulk feed is not allowed on Forest lands, unless otherwise approved by Forest Official. Protein blocks, nutrition supplements and other attractants may be authorized prior to use by Forest Official.

Salt will not, knowingly be placed at or near archeological sites, as specificed above in Management Measures.

Allowable Use Standards

Forage utilization will be managed at a level providing for grazed plant recovery, increases in herbage production and retention of herbaceous litter to protect soils.

Perennial Herbaceous	30-40% of key species by weight
Riparian herbaceous, including deergrass	30-40% of key species by weight
Woody species	50% of terminal leaders
Emergent species (rushes, cattails, etc)	6 – 8 inches stubble height

Monitoring Plan

Monitoring determines whether management is being properly implemented and whether actions are effective at achieving or moving toward desired conditions. Monitoring can occur throughout the grazing year and be conducted by Forest personnel in collaboration with grazing permittees and other Federal and State specialists.

Monitoring will occur through term grazing permit's expiration and can include one or more of the following activities: range condition and trend, permit compliance, allotment inspections, forage production, rangeland utilization, precipitation, and permittee monitoring. Monitoring frequency varies by each activity and funding.

Monitoring is flexible, and as improved methods are developed these new methods would be considered.

Monitoring would be done following procedures described in the Sampling Vegetation Attributes (1999), Utilization Studies and Residual Measurements (1999), Region 3 Rangeland Analysis and Training Guide (FSH 2209.21), Cowley and Burton (2005), and Service wide Rangeland Analysis and Management Training Guide (FSH 2209.14) with consideration of the Principles of Obtaining and Interpreting Utilization Data on Southwest Rangelands (Smith et al. 2005)..

While monitoring techniques can be conducted in key areas, these are not be sole locations for gathering information from the grazing allotment to make decisions about the timing, intensity, duration, or frequency of livestock grazing in a given grazing season. The overall condition of the allotment and such things as distribution patterns or rangeland improvement conditions could be assessed at any given time to help make those decisions.

Effectiveness Monitoring

Effectiveness monitoring includes measurements to track condition and trend of upland and riparian vegetation, soil, and watersheds. Effectiveness monitoring will occur at least once

over the ten-year term of the grazing authorization, or more frequently if deemed necessary.

Range Condition and Trend

Parker Three-Step and paced transect monitoring were established throughout. Photo points and vegetative ground cover data show how the site has changed over time. Canopy cover would provide an indication of how plants are growing, assuming that if they are getting bigger and occupying more space they are doing well and can be a relative gauge of vigor.

Implementation Monitoring

Implementation monitoring will occur at any time during the grazing year and can include such things as allotment inspection and improvement reports, permit compliance, forage production and utilization, and precipitation records.

Permit Compliance

Throughout each grazing year Forest Service personnel would monitor to determine accomplishments of the grazing permit terms and conditions, the AMP, and the Annual Operating Instructions (AOI).

Allotment and Range Improvement Inspections

Allotment inspections are a written summary documenting compliance monitoring to provide an overall history of that year's grazing. This document may include weather history, the year's success, problems, improvement suggestions for the future, and a monitoring summary.

Forage Production and Utilization

Utilization measurements (ocular and/or actual measure) would be taken in key areas which would reflect grazing effects within the allotment.

Frequency and ground cover data were collected using the widely accepted Plant Frequency Method (Ruyle 1997). These data monitors trend in plant species abundance, plant species distribution, and ground cover. This would provide information on plant composition and additional information on regeneration.

Permittee monitoring

Permittees that engage in monitoring without Forest Service involvement is highly recommended. For example, utilization levels, precipitation amounts, livestock counts and actual pasture rotation dates are a few types of permittee monitoring. Reports and inspections will be given to your Rangeland Management Specialist to be used with other data at annual meetings to determine if desired conditions are being achieved.

Riparian monitoring

The objective is to minimize potential negative impacts to riparian areas and associated uplands which provide important wildlife habitat and watershed stability. Nuggett Wash will be protected with construction of riparian exclosure. Ramboz wash will be monitored to assess changing conditions.

Management Measures

Management measures include that mitigation needed to reduce or avoid resource impacts that may result from this decision. These measures have been used in previous decisions and have been found to be effective at reducing potential negative environmental impacts. They are consistent with applicable LMP standards and guidelines and the terms, conditions, and conservation measures of the Biological Assessment completed for the Allotment. Implementation of these practices in combination with adaptive management strategies is intended to avoid adverse environmental impacts.

- All water developments will include wildlife access and escape ramps.
- Before range improvement maintenance or construction occurs, an archaeological clearance must be approved and all necessary consultation with SHPO (State Historic Preservation Organization) and the potentially interested tribes prior to issuing any decision regarding the construction, modification or removal of improvements. This approach, based on long term consultation with SHPO and on Region 3 policy as embodied in the Heritage Consideration Checklist. If it is determined that a site exists, the improvement must be located in such a way that it does not affect the site.
- No salting will occur within or adjacent to identified heritage sites.
- Noxious weeds located in these allotments would be treated as necessary. The permittee and Forest Service would coordinate the weed inventory and treatment. Noxious weed monitoring is carried out at the same time allotment inspections are conducted. As noxious weed populations are found they are mapped, monitored, and treated. Treatment methods would follow guidelines established in the "Final Environmental Impact Statement for Integrated Treatment of Noxious or Invasive Weeds" (2005).
- Any maintenance or construction of improvements throughout allotment will need to meet Forest Plan recreation standards.
- Hay or bulk feed is not authroized on Forest System lands.

Administrative

Range Improvement Maintenance

Existing Improvements

These improvements, listed in Term Grazing Permit, are on National Forest Lands all improvements must be kept to Forest Service standards. An issuance of a grazing permit and permittee's acceptance does not convey improvement ownership. If NEPA has been completed, temporary structures which are short lived and portable improvements will be added to your Term Grazing Permit through a modification, indicating type of temporary improvement, removal date, etc.

According to Forest Service Manual, Regional Supplement, 2240.3, a schedule of maintenance of all improvements in your Term Grazing Permit, requires normal maintenance to maintain the improvements in usable, sound condition. If range improvements deteriorate

beyond the point that normal maintenance is needed, improvement will be considered a new project, which requires a permit modification.

In order to ensure all improvements are maintained to USFS standards and at least once during term of permit, a schedule of maintenance is agreed upon. After schedule of maintenance is completed and all improvements are in usable, sound conditions, new improvements may be considered for installation. Maintenance of all improvements allow for positive livestock distribution through pastures. At this point, all improvements must be maintained prior to livestock entry into pasture for rotation.

New Improvements

All new improvements will require wildlife, recreation, and archeology clearances and a permit modification before installation. All new improvements will become maintenance of permittee. After schedule of maintenance is completed above, these improvements must be installed within 2 years.

Improvement Name	Description	Rationale
Nuggett Wash Riparian Exclosure	The new fencing will be connected with an existing exclosure fence, creating a larger exclosure. Horse trap will be adjusted in size to accomendate exclsoure. Specific location of fence will be determined by Forest Service in cooperation with permittee.	Nugget Wash in the Upper Nugget and Jasper Pastures will be protected from use by construction of a riparian exclosure. This improvement will be installed by permittee and before installation of proposed pipeline.
Jasper pipeline	First trough and storage tank will provide water in upper portions of Jasper pasture, and second trough in the proposed corral (see below). Specific location of improvementwill be determined in cooperation with Forest Service and permittee.	This pipeline will spread the livestock out from the lower water facility and distribute their foraging.
Phillips Corral	Build a corral at corner of Jasper, Phillips and Jackson pastures.	Corral will provide a good location to gather livestock between Phillips, Jasper and Jackson pastures.

Annual Operating Instructions (AOI)

AOI's specify annual actions that are needed to implement management direction set forth in NEPA, Forest Plan and Forest Service accepted peer reviewed studies. Development of an AOI should be a cooperative effort of range staff and permittee. Document shall clearly and concisely identify the obligations of the permittee and Forest Service, and annual grazing management, requirements, standards and monitoring, in order to document compliance.

These instructions should include, but are not limited to:

- Livestock Numbers: Maximum annual livestock numbers authorized, including number, type, class, timing and duration.
- Rotation Schedule: Planned sequence of grazing, management prescriptions and monitoring.
- Range Improvement and Maintenance: All improvements to be maintained or built including responsible party and stipulations.
- Grazing Prescriptions: Allowable use and any other standards that may apply, which must be followed by permittee.
- Monitoring: Current season monitoring may include compliance, utilization, etc. Details of monitoring items and decision points are needed to determine when a change is necessary and to guide direction of those changes.

Annual Meeting

Records of actual use, movement dates, death/loss will be kept by permittee and provided to District rangeland management specialist at annual authorization meetings each year.

Travel Management Guidelines and/or restrictions

The Tonto National Forest is currently planning the implementation of the Travel Management Rule, as directed by the Washington and Regional Offices of the Forest Service. These programs are aimed at reducing non-essential roads for watershed and resource protection. These closures will be honored by the permittees.

If you need to enter a motor vehicle restricted area, you must have special authorization in the form of an Off-Road Vehicle Permit or specific authorization through your Annual Operating Instructions. Entering a restricted area without authorization is a violation of 36 CFR 261.

Radium Allotment Map

Created 10/13/2017

Approved by: _____

Accepted by: _____

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Legend

Improvements

- Corral
- Horizontal Well
- Spring
- Storage Tank
- Stock Tank
- Trough
- Windmill/Well
- Fence
- Pipeline
- 0000 Improvement Number