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EBERT ALLOTMENT

MANAGEMENT PLAN

CHALENDER RANGER DISTRICT

KAIBAB NATIONAL FOREST

Prepared by: Don Richard Date: 7/20/92
Don Richard
Range Staff

Agreed to by: David G. McNelly Date: 7/20/92
David G. or Joyce S. McNelly

Approved by: Gene P. Waldrip Date: 7-20-92
Gene P. Waldrip
District Ranger

EBERT ALLOTMENT MANAGEMENT PLAN

A. INTRODUCTION

The Ebert Allotment is located in the northwest portion of the Chalender Ranger District, approximately 26 miles north of Williams, Arizona. The allotment consists of about 8 1/2 sections of National Forest land, totaling 5445 acres of which 4570 acres are considered to be full capacity range.

The majority of the allotment is relatively flat allowing for easy livestock movement. Elevations vary from 6,150 feet in the northwestern corner of the allotment to 6,450 feet in the southeastern corner. Soils are generally developed from extrusive igneous rocks or a limestone and/or sandstone material. The climate for this area is considered semi-arid with the average precipitation ranging from 14 to 17 inches per year. The vegetation includes pinyon pine and one-seed juniper woodlands and open grasslands with scattered browse species. The dominant forage species is blue grama within both the grassland and woodland types.

The allotment is grazed under a Term Grazing Permit to David and Joyce McNelly. It is used as winter country (November 1 to April 30) for a cow/calf operation in conjunction with the Homestead Allotment which is the summer range (May 1 to October 31). The present numbers are 118 cattle, cow/calf, and 4 horses. Cattle consist of Braford mother cows. Bulls are removed to privately leased land for the winter. Calving generally occurs in March and April. The allotment is currently one pasture with no division fences.

The allotment management planning process was begun with a mid-level planning "Forest Plan Implementation Analysis (FPIA)." This process of analysis, started with a broad focus and development of a desired future condition (DFC) for the management area where the allotment is found. The DFC approach attempts to integrate the management goals of the Forest Plan and focus on overall ecological interrelationships. District resource personnel in developing a DFC made use of the terrestrial ecosystem survey (TES), a soil, climate, and topographical inventory to decide where, on a successional plane, from the current community to potential natural community, to manage the desired vegetative community. Public involvement was included and solicited from its beginning in the 3PIA process and through development of the allotment management plan (AMP). The Ebert AMP Interdisciplinary Team tiered back to the DFC developed for the various vegetation types and the public responses in its preparation of the AMP at the allotment level.

The AMP is designed to obtain better resource management and provide compliance with the Kaibab Forest Plan direction, standards and guidelines. There are opportunities to implement the DFC goals described in the Forest Plan for the various vegetation types found on the allotment. Opportunities exist to treat the invasion of pinyon and juniper tree species to maintain existing and to regain historic grasslands that will maintain the DFC and sustain forage production. With development of the AMP there is opportunity to intensify management and improve rangeland and watershed conditions. Permitted use will be brought in line with grazing capacity. The water development planned will help to alleviate grazing pressure near existing waters. The potential exists to reduce the open road density within the allotment by obliteration and provide increased forage and enhance wildlife habitat conditions.

This plan was prepared in compliance with and response to the Kaibab National Forest Plan, as amended, and its implementing direction. After implementation, monitoring and adjustment as necessary the allotment will be fully consistent with the Forest Plan.

B. OBJECTIVES

The objecitves are meant to address the significant issues identified as a result of scoping in the environmental analysis process.

1. Maintain or improve soil productivity and watershed condition to satisfactory condition through the use of Best Management Practices (BMPs).

2. Balance capacity and permitted use by monitoring and adjustment of stocking rates and management.

3. Improve the vegetation community, particularly the composition, density, and vigor of cool-season grasses and shrubs, resulting in upward trends in vegetation and a rangeland condition in a mid-fair or moderately high shrub/grassland successional stage where possible.

4. Manage the area to achieve a desired future condition identified in the Intergrated Resource Management process which includes woodland areas and a small area of old-growth with a mosaic of a high successional shrub/grassland community. See documentation in the Environmental Policy and Procedures Ebert Allotment Management Plan project file.

5. Intensify management to raise the range livestock grazing management level from level "R 2" to a "R 3" level to comply with Forest Land Management Plan.

6. Improve threatened, endangered and sensitive plant and animal species habitat and reduce grazing conflicts with these species to comply with Forest Land Management Plan and the associated species recovery or management plans as it concerns disturbed rabbitbrush and the Navaho Mountain Mexican vole.

7. Develop necessary range improvements to implement a four pasture deferred rest-rotation grazing strategy on cool-season grasses and browse species.

8. Maintain the area as a winter allotment for the ranch operation.

9. Provide habitat for a wide diversity of native wildlife species in the area with particular attention to pronghorn antelope.

10. Control pinyon-juniper invasion into the open grassland types and areas previously treated to maintain them as a seral shrub-grassland on those soil mapping units according to their suitability for treatment.

11. Enhance the livestock distribution by water control, herding and using salt or protein blocks as a techinque for dispersing livestock from concentration areas.

C. GRAZING STRATEGY

Under this plan the allotment will be divided into four pastures. A four pasture rest-rotation deferred grazing strategy will be used. One pasture will be rested for one year. Livestock will graze as one herd the remaining three pastures one at a time for a two month period. A stocking rate of 100 head of adult cattle and 4 horses is established under this strategy.

This strategy will provide complete rest for each unit every four years. It will also provide under a deferred rotation schedule for spring growing season use every fourth year. This will give desirable cool-season grasses a chance to improve in vigor, reproduce and establish seedlings three years out of four during spring green-up in a particular unit. The rest and deferment will provide for the physiological needs of browse. Browse takes two years to produce seed. For 3 of the 4 years a unit would be grazed for 2 months each year for livestock production and seed trampling.

The grazing strategy will generally benefit soils. Each year approximately one-fourth of the allotment will be rested from livestock grazing. During the spring growing season approximately three-fourths of the allotment area will be rested. During the summer growing season all of the allotment is rested.

This grazing schedule is outlined on the attached form R-3 2200-19.

Adjustments may be made when necessary to meet resource objectives. Use periods and stocking levels should be flexible and adjustable in response to fluctuating precipitation and forage conditions.

D. ALLOWABLE USE LEVELS

The grazing management system in this plan is designed to allow use of forage plants of up to 50% during the non-growth periods and 45% during the critical spring growing season that begins approximately March 1.

Allowable forage utilization of browse will be 50% maximum of the current growth.

It is believed that by holding utilization to these levels improvement in overall forage and resource conditions will occur. It is realized that there will be annual variation in use levels within pastures and between years. If use exceeds the designed levels adjustments may be needed in either the management or stocking rate. These adjustments will be made on a year to year basis following monitoring. The permittee is encouraged to take part in the annual monitoring and discussion of any adjustments needed. Use above the desired levels may impair the long-term desired improvement in forage conditions.

It is the goal of management to obtain uniform use over the pasture. Use over 70% in any given area over 3 acres in size is undesireable.

The Forest Service will provide training to the permittee in estimating utilization so that he may assist in monitoring and increase his ability to recognize use levels that may be injurious to plant health.

E. DISTRIBUTION AIDS

1. Salting/Supplemental Feeding

Salting/supplements for livestock distribution and movement will be the responsibility of the permittee. When properly placed and moved short distances at regular intervals, salt and/or supplements can be used as a distributional tool to attract livestock to or in the direction of lightly used portions of the range. It will not be placed in areas of normal concentrations and should be moved when the grazing use approaches the allowable use levels. Salt will not be placed at any location twice during the same grazing season or at the same location as the previous year. Salt/supplements will be used in a manner that will discourage use of the sensitive plant species disturbed rabbitbrush or allow excessive amounts of dissolved salts to enter the soil. The use of portable salt boxes will be encouraged.

2. Herding

Periodically, riding may be essential to remove strays from the rested or deferred pasture. Riding is encouraged to break up cattle concentrations, such as in drainage bottoms and around waters, and move them to unused feed, into areas of light use or newly placed waterhauls. The objective is to drift livestock as necessary to achieve uniform utilization.

3. Water Control and Waterhauls

Water control by shutting off the water at that location can be used as a tool to defer an area or remove grazing pressure in an area that is approaching the allowable use level.

Water hauling is a common practice and should be used to assist in distribution. Temporary waterhaul points will be moved when desired utilization for the general area has been obtained. Haul water sites generally will not be located at the same locations as in previous years, or in areas of disturbed rabbitbrush or areas of fragile and erosive soils.

F. MAINTENANCE OF IMPROVEMENTS

Maintenance of the rangeland improvements are the responsibility of the permittee as assigned on form 2200-5, attached. In general, all improvements assigned to and used by the permittee must be inspected at least once a year and maintained in a workable condition. Maintenance includes providing materials needed for repairs. Specific maintenance needs will be documented in the annual operating plan.

Any time that heavy equipment such as a tractor or cat is to be used to maintain or construct a range improvement, approval from the District Office must be received in writing. Occasionally, cultural clearances are not required to perform the project, such as tank maintenance, though written approval from the District is always required. Contact the District Office prior to any such activities.

G. RANGELAND IMPROVEMENTS

The following is a list of improvements that are necessary to implement this plan and sustain management. The improvements are listed by priority for development in the order they are presented. The Forest Service and permittee will co-operate in their development under a 50-50 cost-share arrangement. Construction of listed improvements will depend upon the availability of Government and/or permittee funds.

1. Construct a trick tank with a 30,000 gallon water storage tank, approximately 64 x 64 foot inverted roof water harvesting catchement, and drinker equipped with a wildlife escape ramp. The storage tank is scheduled to be installed in FY 1992. Installation of the catchment is scheduled in FY 1994 (until the catchment is installed the storage and drinker will be used as a waterhaul).

2. Fence the allotment into four pastures with approximately 7 miles of interior three-wire, with the bottom wire smooth, light to moderate snow fences built to wildlife specifications. The top wire shall be at least 38 inches but no more than 42 inches above the ground. The bottom wire will be smooth twisted and at least 18 inches above the ground. The Forest Service will request funding for approximately 7 miles of fence material in FY 1992. Construction of the fence will be in FY 1993.

3. Contruct a waterlot fence approximately 100 x 100 feet at the present waterhaul in FY 1993.

4. Pinyon-juniper control-approximately 400 acres. Treat areas where pinyon-juniper is encroaching into the grassland type. These treatments are contingent upon an environmental analysis, biological evaluation and cultural resource clearances. The Forest Service will request funding for cultural resource surveys in FY 1993. Treatment work is scheduled in FY 1993 and 1994. This work will be done by the permittee as his contribution towards the improvements.

The attached map shows the approximate locations of the structural improvements.

H. OTHER CONSIDERATIONS

The Forest Service will obliterate roads as shown on the attached allotment plan map. Before any ground disturbing activity occurs a cultural resource survey and an biological evaluation will be conducted.

I. PLAN IMPLEMENTATION AND MONITORING

Upon signing of this plan the Term Grazing Permit will be changed to allow for the change in permitted numbers on the Ebert Allotment. The permit will be changed to read: 100 Cattle Adult and 4 Horses Ebert Allotment.

A biological evaluation will be conducted for the improvements with mitigation measures incorporated into the development. Cultural resource clearances will be done prior to the improvement undertakings with management constraints developed to mitigate any impacts from ground disturbing range improvement activities.

Monitoring of the allotment will be achieved through production and utilization (PU) surveys, reading of a minimum of one permanent cluster with transects in each pasture and allotment inspections. The permittee will be invited, and encouraged to participate in all monitoring procedures. The permittee will be notified in writing when formal monitoring such as PU and condition and trend surveys is to take place so they can participate in these procedures.

The first PU survey will be made after installation of the improvements.

Monitor wildlife use ahead of livestock moves and in the season's non-use or rested unit.

At least once during the grazing season, an allotment inspection will be conducted. The inspection will consist of livestock counts, general forage and browse production and utilization estimates, livestock distribution, use of water control, placement of salt or supplements, condition of rangeland improvements, vegetative condition and trend, noxious weeds, general management needs, and soil and watershed conditions.

One Parker Three-Step permanent clusters, consisting of three transects, will be established in each of the newly created pastures to provide baseline data in the future.

Photo points will be mutually selected over the allotment to help monitor change over time.

During the course of project activities or the development or maintenance of rangeland improvements range conservationists, watershed specialists, and others will ensure that the BMPs are implemented according to plan.

BMP implementation monitoring is done before, during, and after resource activity implementation.

Monitoring for disturbed rabbitbrush, a sensitive plant species found on the allotment, will consist of continuing a study of a point site on the allotment that was initiated in 1988. Measurements include plant height, leader length, crown length and width, percentage of crown flowering and crown shape as well as photographs and observations of insect, cattle and wildlife utilization and rodent impacts. Measurements should be made in each pasture. Additional surveys and monitoring will be done to learn of other populations within and adjacent to the allotment. Monitoring personnel will include the zone botanist, wildlife biologists, permittee, and range conservationists.

The stocking will be adjusted to capacity within a minimum of three years following the installation of the listed structural improvements. This adjustment can take the form of a change in permitted numbers, length of season, season of use or revision in management or a combination of all four. Data and information obtained in monitoring will be compared against the objectives stated in this plan to form the basis of any adjustment.

J. ANNUAL MEETING AND ANNUAL OPERATING PLAN

This plan will be reviewed annually to determine adequacy for both livestock and rangeland management needs. It will be revised when it no longer meets the needs of the rangeland resource or the livestock program.

This plan will be supplemented each year by an annual meeting and documented in the Annual Operating Plan. The Annual Operating Plans will specify the season and pastures to be grazed, or rested, as well as individual maintenance needs, distribution aids and other management activities for the year. It will also spell out the monitoring to be done in a given year and the approximate time it will be done.

K. APPENDIX

1. Allotment Management Plan Map

2. Improvement Listing and Maintenance Responsibility, form 2200-5

3. Form R 3 2200-19, Grazing Schedule

IMPROVEMENT LISTING FOR CHALENDER DISTRICT-EBERT ALLOTMENT 00008

05/11/1992

IMPROVEMENT NAME	IMPROV NO	EXT	UNITS IN PLACE	MAINTENANCE RESPONSIBILITY
EBERT-FOREST BDRY NORTH	001901	A	3.0	EBERT PERMITTEE
EBERT-FOREST BDRY WEST	001901	B	2.6	EBERT PERMITTEE
EBERT-SMOOT FENCE	001902	A	1.2	SMOOT PERMITTEE
EBERT-SMOOT FENCE	001902	B	3.1	EBERT PERMITTEE
EBERT-SMOOT FENCE	001902	C	2.3	SMOOT PERMITTEE
MILLER WASH TANK	001914		1.0	EBERT PERMITTEE
FIX TANK	001915		1.0	EBERT PERMITTEE
WINTER CAMP WATERLOT	001918		.3	EBERT PERMITTEE
WINTER CAMP TANK	001919		1.0	EBERT PERMITTEE
WHITE HILL WATER HAUL	001920		1.0	EBERT PERMITTEE
DAVES TANK WATERLOT	001921		.3	EBERT PERMITTEE
DAVES TANK	001922		1.0	EBERT PERMITTEE
FIX TANK WATERLOT	001923		.3	EBERT PERMITTEE
FIX TANK CORRAL	001924		1.0	EBERT PERMITTEE
FIX TANK BARN	001925		1.0	EBERT PERMITTEE
EBERT MECH	002194		200.0	FOREST SERVICE