U.S. Department of Agriculture
Forest Service
Tonto National Forest
Pleasant Valley Ranger District
Environmental Assessment
Increase In Term Permitted Numbers
Bar X Allotments

Prepared by: Denise Van Keuren 8/28/85
Denise Van Keuren, Range/Wildlife Staff — Date

Reviewed by: John P. Caffrey 9/30/85
John P. Caffrey, District Ranger — Date

Approved by: _____ _____
James L. Kimball, Forest Supervisor — Date

Appendix

I. Management Plan Map

II. Range Improvement Map

III. Salting Plan Map

Purpose and Need

A Range Analysis was completed in 1978 which resulted in a decision by the Forest Supervisor to reduce stocking on the Bar X, Haigler Creek, and Young Allotments, hereinafter referred to as the Bar X, from 468 adult cattle yearlong (CYL) plus the natural increase for ten months; to 59 CYL and implement improved management. In 1980 the permittee voluntarily waived the five year adjustment schedule, bringing on-the-ground stocking to 59 CYL. A management plan was developed and approved in 1982. The grazing system implemented was a variation of the Santa Rita Three Pasture Rest-Rotation system. The grazing system provides for a maximum of 18 months rest, and back to back spring/summer rest two years out of three for each pasture. Recently completed Production- Utilization (PU) studies indicate that the range resource has recovered to a point which would allow for increasing term permitted numbers.

Issues and Concerns

The analysis process identified the following issues and concerns:

1. Effects of greater cattle numbers upon wildlife habitat, especially elk winter range, Mearns quail and turkey.

2. Effects of greater cattle numbers on riparian habitat. Whether an increase in current stocking would result in higher cattle concentrations in riparian areas, and reverse the present upward trend in riparian condition.

3. Livestock/recreation conflicts. Will increasing term permitted numbers have an adverse impact upon dispersed recreation, especially along Haigler Creek?

4. The effect of increased stocking on the present upward trend in range condition.

5. The effect of increased stocking on improved soil and watershed conditions.

Alternatives

During the preliminary analysis three reasonable alternatives were developed:

Alternative 1 - No Action. Continue P-U Studies for one additional year as specified in the current management plan with no change in stocking or management intensity. This would provide additional resource data from which to base a recommendation regarding increased livestock numbers, and the opportunity to quantify wildlife habitat needs.

Alternative 2. Increase current stocking to 1200 AUM's 100 adult cattle year-long (CYL) with no change in current management, as a two-year term permit. The total increase would be allowed the first year. P-U Studies would commence the year following the increase to evaluate the effects of higher cattle numbers on range and related resources (i.e. wildlife habitat). The

current management plan would be updated and approved for the period 1986-1991 or until the permittee is ready to implement more intensive management.

The proposed stocking rate of 1200 AUM's is well within the capacity estimate of 1300 AUM's derived from the current P-U Study. At the end of the two-year study period, the permitted level of grazing would once again be evaluated and adjusted based on capacity estimates derived from the P-U Studies.

Alternative 3. Stocking and management would continue unchanged until the permittee becomes financially able to implement intensified management. An increase in stocking would be timed to coincide with AMP revisions. The type of management to be implemented would be a variation of a high intensity/short duration grazing system proposed by the permittee. This system would require additional fencing to break existing pastures into smaller units and water developments. The permittee is considering grazing two herds of cattle (registered and commercial) which would be rotated through the smaller pastures more frequently. P-U Studies indicate that the allotment could be stocked with slightly higher numbers under such a management system.

Each of the above alternatives were evaluated by the following criteria:

1. Need for a more accurate determination of allotment capacity for both wildlife and domestic livestock, under the current level of management.

2. Plant vigor and composition improvements in identified key areas and key species.

3. Permittee needs and abilities to meet desired management objectives.

4. Maintain watershed quality without increasing active soil erosion. Gully systems stabilization and improvement.

5. Continued improvement in riparian and aquatic habitats.

6. Continuing improvement in water quality.

7. Reduction of recreation/livestock conflicts along Haigler Creek.

8. Effects on deer and elk winter range, habitat improvement for Merriam's turkey and Mearns quail.

Affected Environment

A detailed description of the Bar X may be found in the Environmental Assessment approved by the Forest Supervisor on October 4, 1979. Copies of the above mentioned assessment are on file at the Supervisor's Office and the Pleasant Valley Ranger District. Range, soil, watershed, and wildlife habitat conditions have improved significantly since the 1978 range analysis. At the present time, range which was classified as poor and very poor with a downward trend is in the fair to good category with an upward trend. The vigor of desirable warm season grasses such as hairy grama (Bouteloua hirsuta) and sideoats (B. curtipendula) has improved significantly. In addition, other desirable grass species once thought to have been eliminated from the community, such as green sprangletop (Leptochloa dubia), Junegrass (Koeleria

cristata), and squirreltail (Sitanion hystrix), are re-establishing themselves. Effective ground cover (plants and litter) has increased to a level which has greatly enhanced soil stability and brought the majority of potential capacity range into the full capacity category. Grasses are also becoming established on banks and in channels or gullies, reducing peak flow and cutting.[1] High plant vigor coupled with extremely low utilization has resulted in plants taking on a "wolfish stature," which can lead to reduced forage production and nutritional value. Wildlife habitat has improved greatly. Probably the greatest evidence supporting this statement is the renewed presence of elk below the Naegelin Rim, historically an elk winter range. Mearns quail historically inhabited the entire Young area. The abundance of turkey has also increased throughout the allotment. These statements are supported by observations of the local Wildlife Manager (see copies of Arizona Game and Fish correspondence in appendix). Riparian habitat along Haigler Creek has responded favorably to improved management.

Environmental Consequences

The no action alternative would provide for continued improvement of range, soil, watershed, and wildlife habitat. However, in some areas plant vigor and nutritional value may decline due to current grazing patterns and the "wolfish" nature of some desirable grasses. Continuing P-U Studies as indicated in the management plan will provide additional data. However, it is extremely doubtful that the additional study would yield results which differed significantly from the initial study.

Under current management and stocking, no conflicts between livestock and recreation have developed.

Allowable uses established in the 1984 P-U Study are relatively conservative, and should provide for continued improvement of range, soil, watershed, and wildlife resources. A higher level of stocking should result in dispersing livestock more evenly within each pasture, and make more efficient use of available forage, increasing current capacity. The recommended stocking rate of 1200 AUM's is well within the estimated capacity of 1300 AUM's, which includes the needs of wildlife. The stocking rate of 1200 AUM's should result in conservative use levels. It is recognized that the current P-U Study was conducted following an extended period of above normal rainfall, and one cannot know what effect an equal period of normal or below normal rainfall would have on the estimated capacity. It is also possible that livestock would continue to concentrate in those areas of moderately heavy utilization (see 1984 P-U Study), and over-utilize those areas. Unless grazing patterns change drastically, this alternative should not result in conflicts with recreational use along Haigler Creek. The current management system should also provide sufficient protection to riparian areas for continued improvement.

Conducting P-U Studies following an increase in stocking would provide more reliable data from which to determine the potential of the allotment to graze livestock on a sustained yield basis.

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[1] 1984 Bar X Production - utilization study text and photographs.

During the first three to five years the effects of Alternative 3 would be identical to Alternative 1. Upon implementation of a high intensity/short duration grazing system and increased stocking (1320 AUM's) ranch income should be enhanced. The permittee's financial status should also enable him to make significant contributions to development of needed improvements.

Range, soil, and watershed conditions should continue to improve or stabilize in fair or better condition. Allowable uses are within the acceptable range for maintaining Mearns quail habitat.

Recreation/livestock conflicts may develop as a result of greater numbers of cattle in smaller areas. This will require close coordination with recreation to ensure fences and pasture location will not adversely affect recreational use.

Although additional grazing pressure of riparian zones may result, the duration would be quite short and should not retard improvement.

Consultation With Others

Dr. George H. and Sharon Yard - Permittee
Dave Carrothers - Arizona Game and Fish Wildlife Manager
Sue Morgensen - Arizona Game and Fish Region VI Habitat Specialist
Keith Menasco - Wildlife Biologist PVRD

Decision Notice
and
Finding of No Significant Impact
Increase In Term Permitted Numbers

Bar X Allotments

Tonto National Forest

Pleasant Valley Ranger District

An Environmental Assessment that discusses the proposed increase in term permitted numbers on the Bar X, Haigler Creek, and Young Allotments, hereinafter referred to as the Bar X, has been prepared.

Based upon the analysis and evaluation described in the Environmental Assessment, it is my decision to adopt Alternative 2. This action will provide for improvement of range, soil, watershed, and wildlife resources while enhancing ranch income and providing an incentive for the permittee to contribute to maintenance and intensification of current management. No adverse social or economic impacts are associated with this action.

In addition to the proposed action, two other alternatives were evaluated: No action, and timing the increase to implementation of a high intensity/short duration grazing system. The no action alternative was not selected since it provides no means for correcting the current selective grazing patterns and would provide no evaluation of allotment capacity under a higher stocking rate. Alternative 3 was not selected at this time due to to the need for additional immediate investment in additional structural range improvements and the desired objective of further evaluation of allotment capacity under the current level of management. All alternatives were evaluated based upon the following criteria:

1. Need for a more accurate determination of allotment capacity for both wildlife and domestic livestock, under the current level of management.

2. Plant vigor and composition improvements in identified key areas and key species.

3. Permittee needs and abilities to meet desired management objectives.

4. Maintain watershed quality without increasing active soil erosion. Gully systems stabilization and improvement.

5. Continued improvement in riparian and aquatic habitats.

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7. Reduction of recreation/livestock conflicts along Haigler Creek.

8. Effects on deer and elk winter range, habitat improvement for Merriam's turkey and Mearns quail.

I have determined based upon the Environmental Analysis that this is not a major federal action which would significantly impact the human environment, therefore an Environmental Impact Statement is not needed. This determination was made considering the following factors:

1. There are no significant irreversible resource commitments.

2. There are no cumulative or secondary effects.

3. Sensitive resources will be adequately protected, thereby ensuring continued resource recovery.

This decision is subject to administrative review pursuant to 36CFR 211.18.

JAMES L. KIMBALL
Forest Supervisor

30 OCT 1985
Date