

## ALLOTMENT MANAGEMENT PLAN

## STEPHENS ALLOTMENT

Chino Valley Ranger District  
Prescott National Forest

PREPARED BY:

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Susan Schuhardt, Grazing Permit Administrator,  
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Date

AGREED TO BY:

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Mr. James W. Puntenney, Long Meadow Ranch

Date

APPROVED BY:

*Mark L. Johnson*1-16-96

Mark L. Johnson, District Ranger, Chino Valley

Date

This AMP supersedes the 1967 Range Management Plan and the 1970 Amendment. The division fence called for in that plan has been built.

Variable numbers and season of use are specified in the new permit. Head months are limited to 720 per grazing year. The typical numbers and season of use will be November 1 through January 31 with 240 cattle. Cattle will be allowed to graze the allotment for one growing season (April through September) in the 10 years. During the months of December through March, cattle will not be allowed to graze on the clayey soils associated with the elevated plains if saturated soil conditions exist.

Utilization limits are shown in the following table of key areas and key species. Key areas are marked on the permit map and are in the Monitoring Form document # 32 of the Project Record. Key areas are also shown on the topographic map of the allotment in the AMP.

The primary objective of this AMP is to improve vigor and density of "decreaser" perennial grasses. Sideoats grama will be used as an indicator. Other major objectives include maintaining medium or high vigor on preferred browse species (mountain mahogany, ceanothus, and cliffrose) and holding utilization of reachable shoots of woody riparian species to 20% or less of the shoots.

Continued management of juniper and pinon on the allotment is not covered by this AMP. Separate plans will or have been developed.

## STEPHENS ALLOTMENT

## Proper-Use In Key Areas On Key Species

Key Area *	Key Species	Utilization Standards		
		Forage	Growing Season	Dormant Period
#1 West	Sideoats grama	35		45 **
#2 West	Woody Riparian	20		20
#3 East	Sideoats grama	35		45 **
#4 East	Woody Riparian	20		20

NOTE:

\* Refer to attached map for key area locations

\*\* Dormant plant utilization on grass species can be as much as 50% higher than the forage growing season utilization. This higher level reflects three factors. First, the listed standards are intended for growing periods. They protect enough of the photosynthetic capability of the plant that it can make subsequent vigorous growth. Cured material does not play the same role as green plant material. Therefore, there is less need to protect the cured material from grazing, thus the 50% increase. Second, cured material (associated with the dormant season) does play a positive role in wild and domestic animal nutrition, especially in the earliest cured stage. Third, cured material provides soil cover to reduce erosion or meet other wildlife habitat needs. These factors give reason to retain one-half to one-third of the dormant, or cured plant.

The woody riparian utilization equivalent is 20% of shoots which are within livestock reach. Only shoots within 5 feet of ground will be considered.

Woody upland utilization equivalent is not contained in the above chart but will be administered where appropriate. The woody upland utilization equivalent is defined as a level which will ensure the vigor rating, per Region 3 Range Handbook, is at medium or high on the preferred "A" species such as mountain mahogany, cliffrose and ceanothus.

Anticipated conflicts of use focus primarily on recreation. Effects of grazing on dispersed camping and other recreation are expected to be minimal. Effects of recreation and woodcutters on roads, cattle, fences, and waters is expected to continue and worsen as subdivisions are built closer to the allotment. Woodcutting, both legal and illegal, will result in both direct loss of herbaceous vegetation from vehicle use and indirect gain due to juniper suppression, protection from scattered fuelwood slash, or human-caused fires.

Some difficulty is anticipated in adjusting to a management system driven by utilization requirements. However, the management system is designed to decrease the conflict by allowing better control of utilization.

Management system will be to occasionally switch the order of use of the east and west pastures by year, to the extent feasible. In 1995 the west pasture will be used first, so in 1996 the east pasture could be used first. This is to help distribute any effects on riparian vegetation or on soils. Cattle will be moved from one pasture to the other approximately half way through the use period.

Distribution aids include existing waters, salting at least 1/4 mile from water and away from system roads and trails, preferably on areas of under-utilized forage or browse, and locating of cattle away from key areas. These aids apply to management within each unit. Existing roads and trails are adequate to move livestock. Additional trails require additional National Environmental Policy Act work and adequate lead time (6 months recommended). Permittee will prepare or validate a salt plan map in each annual meeting.

Maintenance of all improvements shown on the permit and permit map plus those added during the life of the permit are permittee responsibility. Improvements are to remain fully functional, per attached maintenance standards. Permittee has responsibility of checking improvements for maintenance needs. Materials for maintenance are permittee responsibility. Reconstruction may merit Forest Service materials.

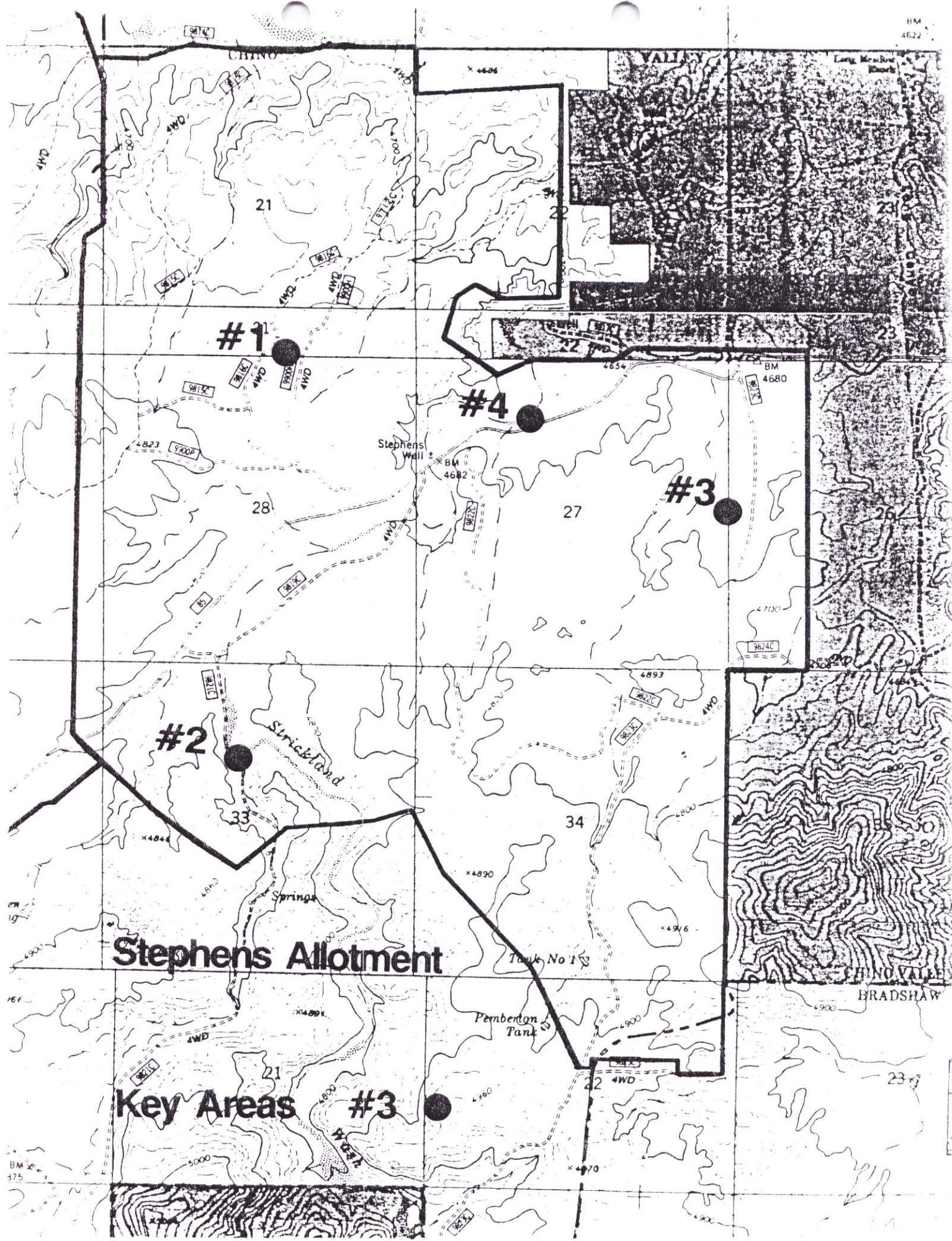
Frequent monitoring is permittee responsibility. It will consist of utilization checks in grazed units. Forest Service has responsibility to train permittee, if needed, in measuring utilization by weight. See attached monitoring guide. Forest Service will provide utilization gauges to the permittee. Forest Service has responsibility for spot checking permittee monitoring. The project record calls for at least one Forest Service utilization check per growing season. Long-term trend studies may also be done by either party. Permittee is encouraged to join the Forest Service on inspections and studies. The Forest Service will share monitoring results with permittee.

Permittee has responsibility to contact Forest Service when monitoring indicates that moves more than two weeks off the scheduled date are needed. This applies to both early moves (to prevent over-utilization) and deferred moves (to stay until utilization levels are reached). Permittee has responsibility to move stock between units or off the allotment when utilization limits are reached, after consultation with Forest Service. See item on grazing-fee credit below.

ALL ground disturbance for tank clean-out, road maintenance, fence construction (by hand or machine), trough installations, pipelines, etc. requires adequate lead time for heritage clearance. Two months are recommended. Shorter-time requests may not be accommodated in the time frame requested. Prior disturbance does not mean that no heritage clearance is required.

Inspections by the Forest Service will be done periodically. Results and photographs will be filed in the allotment's 2210 folder(s).

Permittee and Forest Service will meet once a year to prepare an Annual Operating Plan of pasture use, numbers, management, and improvement construction and maintenance. The meeting will be used also to prepare a validation form for billing. Payment for grazing must be received at the lockbox (or equivalent if system changes) and notification received by the Forest Service before the beginning of each grazing year. A minimum of 10 days is recommended for this process. Credits for unused fees may be granted if a signed credit form is received. The form is to be prepared and signed prior to the period of reduced use, or as soon as practical if verbal notice of stock removal is given to the grazing permit administrator.



Range Improvement Maintenance Standards

The permittee is responsible for his/her proportionate share of the maintenance of all structural range improvements as listed in the permit and all new improvements as they are constructed. They are further identified on the permit map.

A. Maintenance standards for water developments follow:

1. All spring source facilities shall be adequately protected or fenced and fences made to prevent livestock from getting into the source of the head box.
2. Head box lids or covers shall be in place to prevent dirt, rodents or other refuse from entering the head box.
3. All outlet pipes and valves from head boxes shall be functioning and any leaking shall be kept to minimum.
4. Water troughs shall be kept at heights that make them usable to livestock. Troughs which have soil loss from trampling livestock shall be periodically backfilled to maintained a useable height.
5. Troughs which become uneven due to settling shall be reset and leveled.
6. Bottom of steel trough shall be at least two to four inches clear of the ground to prevent rusting or decomposition.
7. Water shall not be allowed to overflow the sides of the troughs. Overflow water shall be piped away from troughs at least 50 feet. The end of the overflow shall be protected from trampling by livestock. Water from the overflow pipe must be directed away from the area.
8. Inlet and outlet pipe shall be protected by anchoring to the trough with a single post wired to the inlet pipe and a brace or pole supporting the outlet pipe. Inlet and outlet pipeline shall be secured as needed for their protection.
9. All troughs shall be equipped with a wildlife escape ramp.
10. Troughs, storage tanks, and pipelines shall be drained and cleaned periodically to prevent algae buildup and damage from freezing.
11. Poles, posts and trough-framing materials used in the construction of the water trough shall be maintained, repaired or replaced as needed.
12. All above-the-ground pipeline structures shall be maintained.
13. Pipelines with air and drain valves shall need to be covered with fine screen to prevent dirt from entering the pipe. Screens shall be replaced as needed.

## APPENDIX

### PROPER-USE MONITORING

By Alan Kelso, Grazing Permit Administrator,  
Chino Valley and Bradshaw Ranger Districts  
September 12, 1995

Per request from the public and the Arizona Game and Fish Department, monitoring protocol is added here for the "proper use" method of assessing utilization by grazing animals. This adds to the information listed in the Environmental Assessment (EA). It is written as a field guide. Monitoring locations are described in brief in the EA and in more detail in district monitoring files, when actual locations have been pinpointed on the ground.

#### A. GENERAL GUIDELINES

1. Focus monitoring during periods of use and growth. Use period varies by allotment. Growth varies with both precipitation and temperature. It often varies widely between riparian and upland areas. It varies widely by species. Utilization varies by management factors including choice of livestock, salting practices, in-unit movement of cattle, grazing system, and other factors.
2. Focus monitoring in work overload times on allotments where past measurements or inspections have showed over-utilization. A changed permit situation may also merit a focus.
3. Focus monitoring on places and seasons which will yield the most resource protection, including follow-up checks for compliance, as opposed to doing blanket or dormant-season monitoring. Move to lower-priority situations as time permits in order to track successes as well.

#### B. INSTRUCTIONS FOR MEASURING PROPER USE

1. Monitor key areas by extensive reconnaissance on foot or horseback. The goal is to determine AVERAGE grazed and ungrazed heights for each key species in the key area. Make enough measurements with a scale to back up ocular estimates.
2. Key species are those currently utilized by grazing animals. As a class, they are generally perennial "decreasers," that is, those which tend to decrease rather than increase under heavy grazing pressure. Decreasers, "increasers", and "invaders" are listed in the Southwestern Region Range Analysis and Management Handbook.
3. Do not consider ungrazed species as key species. However, they may be key species under different growing conditions, especially temperature. The Handbook lists species as cool-season, warm-season, and cool/warm-season species.

4. Convert the grazed and ungrazed heights to a "percent utilization by weight" figure by entering both figures into the pocket Utilization Gauge--An Instrument for Measuring Utilization of Grasses, 1980, Rocky Mountain Forest and Range Experiment Station. Each species has a unique measurement scale. They are based on clipping and weighing studies done by the Station.
5. Compare the figure from the gauge to the utilization limits shown in the EA Appendix (A General Guide to Proper Use of Forage Species). Calculate the percent of proper use by dividing the percent utilization by weight by the proper use from the Guide. (For the dormant season, multiply the proper-use figures on the table by 1.5.)
6. Total the "percent of proper use" figures. Divide by the number of utilized species to get an average proper-use figure. If this average approaches or exceeds 100%, initiate follow-up action as required by the EA, AMP, or grazing permit.

C. EXAMPLE (during growing season)

1. Field data from key area only:

Western wheatgrass (Agsm) utilization by weight (from gauge):	50%
Silver bluestem (Ans) utilization by weight:	15%
Little bluestem (Ans) utilization by weight:	0%

2. Calculation:

50% Agsm utilization by weight = 125 percent of proper use  
40% Agsm proper use (from Guide)

Plus

15% Ans utilization by weight = 50 percent of proper use  
30% Ans proper use (from Guide)

$125\% + 50\% = \frac{175\%}{2 \text{ species}} = 88 \text{ percent of proper use, average.}$

In this example, only western wheatgrass and silver bluestem were considered key species. At a different time of year, the key species may be different due to different growth requirements between species.

Both the average percent of proper use and the higher than proper use on Agsm in this example call for immediate follow-up action with the permittee. Utilization will usually continue for some time after the measurement.

## D. EXAMPLE (during dormant season--when sampled plants are cured)

The process varies only in the proper-use figure used. If the sampled species is cured, allow an extra 50% utilization, that is, 40% to 60%. The reasons for this adjustment are listed in the EA description of the selected alternative. Using the same utilization data as in Part C, here is an example for dormant-season calculation:

## 1. Field data from key area only:

Western wheatgrass (Agsm) utilization by weight (from gauge):	50%
Silver bluestem (Ansa) utilization by weight:	15%
Little bluestem (Ansc) utilization by weight:	0%

## 2. Calculation:

$$\frac{50\% \text{ Agsm utilization by weight}}{40\% \text{ Agsm proper use (from Guide)}} \times 1.5 = \frac{50\%}{60\%} = 83\% \text{ of proper use}$$

Plus

$$\frac{15\% \text{ Ansa utilization by weight}}{30\% \text{ Ansa proper use (from Guide)}} \times 1.5 = \frac{15\%}{45\%} = 33\% \text{ of proper use}$$

$$83\% + 33\% = \frac{116\%}{2 \text{ species}} = 58\% \text{ of proper use, average.}$$

In this example, only western wheatgrass and silver bluestem were considered key species. At a different time of year, the key species may be different due to different growth requirements between species.

The average percent of proper use in this dormant-season example does not require follow-up to change management unless there are indications that utilization is ahead of schedule. This relates to season, number of stock, next scheduled move or other management change. The 58% level indicates caution. However, the 83% level on Agsm does indicate a need for a change of management unless a move is already imminent. If management does not keep utilization below proper-use levels, a move off the unit (or allotment in some cases) would be required.

The dormant season is not defined by a time of year. It is defined as cured plants. Elevation, aspect, precipitation, soil moisture, temperature, and species define when the plant will be dormant.