

ALLOTMENT MANAGEMENT PLAN

Coyote ALLOTMENT

Chino Valley Ranger District
Prescott National Forest

PREPARED BY:

Alan Kelso
Alan Kelso, Grazing Permit Administrator,
Chino Valley and Bradshaw Ranger Districts

12-15-95

Date

AGREED TO BY:

W. J. Wells
William J. Wells, permittee

1-17-96

Date

APPROVED BY:

Mark L. Johnson
Mark L. Johnson, District Ranger, Chino Valley

1/23/96

Date

The Coyote Allotment Management Plan (AMP) is for a cow-calf operation for up to 312 adult cattle. As before, it is limited by dates and number of head at one time.

Conflicts between cattle and recreation use exist and will continue to grow. The allotment contains an area of moderate recreation use in the high elevations, adjacent to Woodchute Wilderness and Potato Patch Campground and the Mingus Mountain snowplay area. Developed sites in this area have affected fencing patterns but most of the developed area has been outside the allotment. Conflicts between wilderness management and grazing may increase over the low current level of conflict. The primary effect of grazing on recreation is on potential campsites and occasional cattle on Hwy. 89A. The primary effect of recreation on grazing is vandalism and lesser forms of damage to improvements. Urban development reached the west edge of the allotment in the mid 1990's and conflicts in that area are expected to increase.

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.

The management system consists primarily of restricting the season of use. Use is restricted to November 1 to May 31 each year, with minor changes to coordinate with the summer allotment on the Coconino NF. This concentrates the use during the dormant season for the key species. Short-term use is made of the small James East, James North, James West, and Hickey Mountain Units. The Mountain Unit dominates the allotment and is used most of the time (November-April). See the attached 2200-18 Grazing System.

Actual timing of moves is based on utilization of key forage species in key areas. Species and utilization limits are listed by areas on the following page. Key areas are shown on permit map, in project record # 37, and on a map in AMP.

Utilization levels will be measured in grazing years 1995-1997. The utilization will be used as an indicator of change needed in following years. Based on the 1995-1996 utilization checks and calculations, cattle numbers and season of use will be estimated for grazing year 1997. By not later than grazing year 1998, permittee will be expected to adjust operation to comply with utilization limits and possible followup actions. Cattle numbers or season of use may need to be adjusted to avoid over-utilization of browse or key species of grass.

After a full (5-year) cycle through the proposed grazing schedule has been completed, grazing capacity will be evaluated. The permit may be modified at that time to reflect this evaluation.

Utilization limits are shown on the following page.

COYOTE ALLOTMENT
Proper Use In Key Areas On Key Species

Key Area *	Key Species	Utilization Standards		
		Forage	Growing Season	Dormant Period **
#1 CCC	Sideoats grama	35		50
#2 West	Sideoats grama	35		50
#3 James	Sideoats grama	35		50
#4 Hickey Mtn	Woody Riparian	20		20
#5 Hickey Mtn	Sideoats grama	20		30
#6 Mountain	Sideoats grama	35		50
#7 Mountain	Sideoats grama	35		50

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.

Distribution aids include existing waters, riding to locate cattle away from key areas, and salting/supplementing on areas of underutilized grass or browse. At a minimum, salting/supplementing shall be done at least 1/4 mile from water and away from system roads and trails and stock trails shown on the permit map. Permittee will prepare or validate a salt/supplement plan map in each annual meeting.

Existing roads and trails are adequate to distribute livestock, provided 4 closed roads shown as range improvement stock trails on the permit map continue to be available to permittee. Permittee may be given year-by-year permission to use vehicles on these trails to move salt or supplement. A Access Management Plan decision may be made to disallow this use. Permittee has the responsibility to reduce erosion of these trails. By the end of grazing year 1997, permittee will install drainage structures such as water bars or ditches for the length of the trails. Periodic maintenance to reduce erosion is required. Permittee shall work to discourage additional motorized use of the stock trails by the public or his own operation.

Rick and Martin Tank in Martin Canyon, Wells and Upper CCC Tank near CCC Canyon, and Little, Littler, and Littlest Tanks (see improvement map--some names are new) require maintenance by the end of Grazing Year 1997. The Martin Canyon tanks and Upper CCC Tank need to have vehicle travel over the associated water-collection ditches stopped by obliterating the road. Heritage clearance is on file only for Wells and Upper CCC Tanks. The others need clearance, as does the old road in Martin Canyon. Each of these tanks needs an adequate spillway constructed. The Forest Service can provide size calculations.

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.

Maintenance requires a permit modification form. This allows tracking of permittee and Forest Service expenditures.

Supplement use is to be restricted to use as a distribution aid, not as a primary or major feed source, in order that true capacity of the allotment can be determined. Existing supplement containers are to be removed or scattered to areas of surplus forage.

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 to check improvements for maintenance needs. Materials and labor for maintenance are permittee responsibility. Reconstruction may merit Forest Service materials.

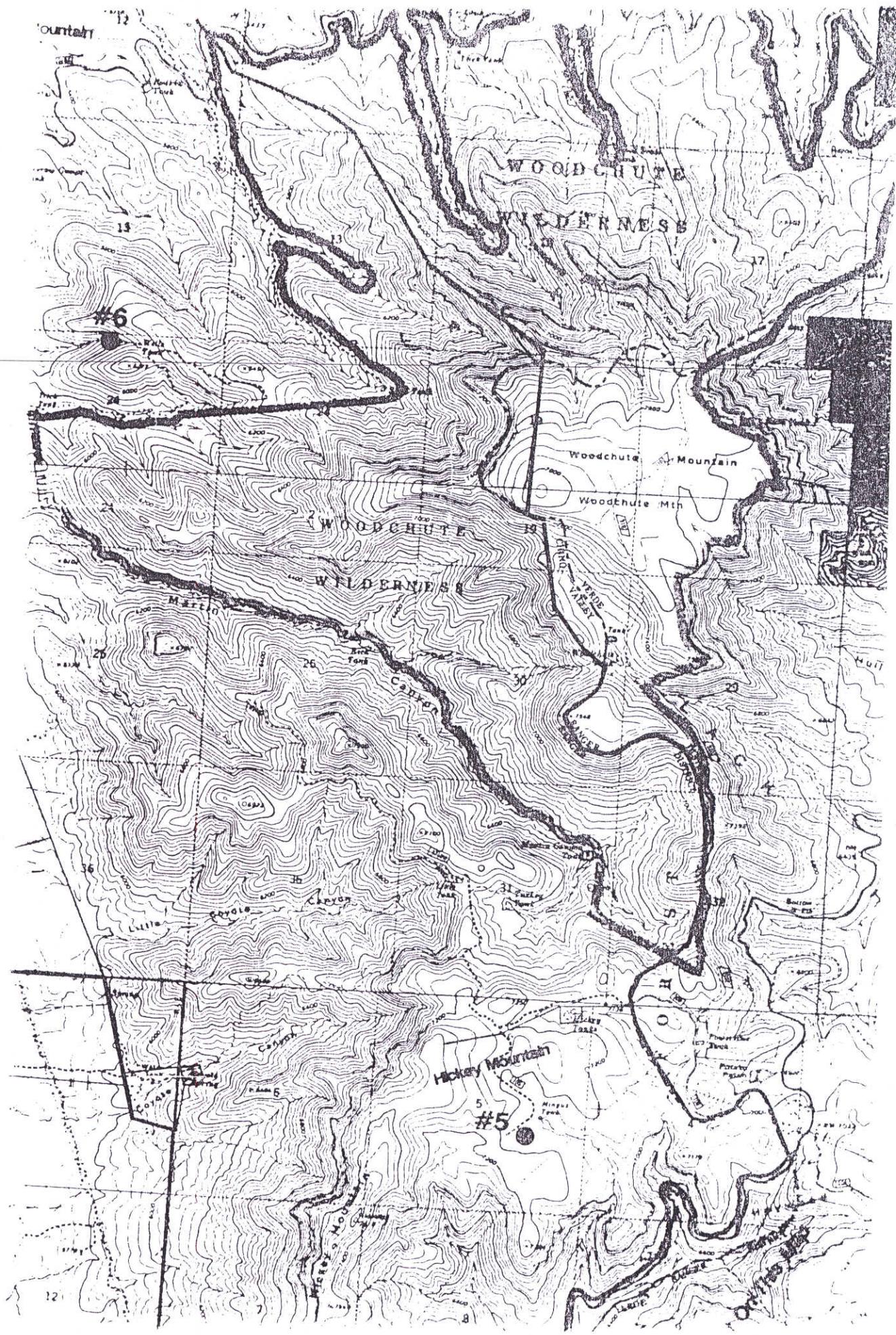
Frequent monitoring is permittee responsibility. It will consist of utilization checks in grazed units. Forest Service has responsibility to train permittee, if needed, in measuring utilization by weight. See attached monitoring guide. Forest Service will provide utilization gauges to the permittee. 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.

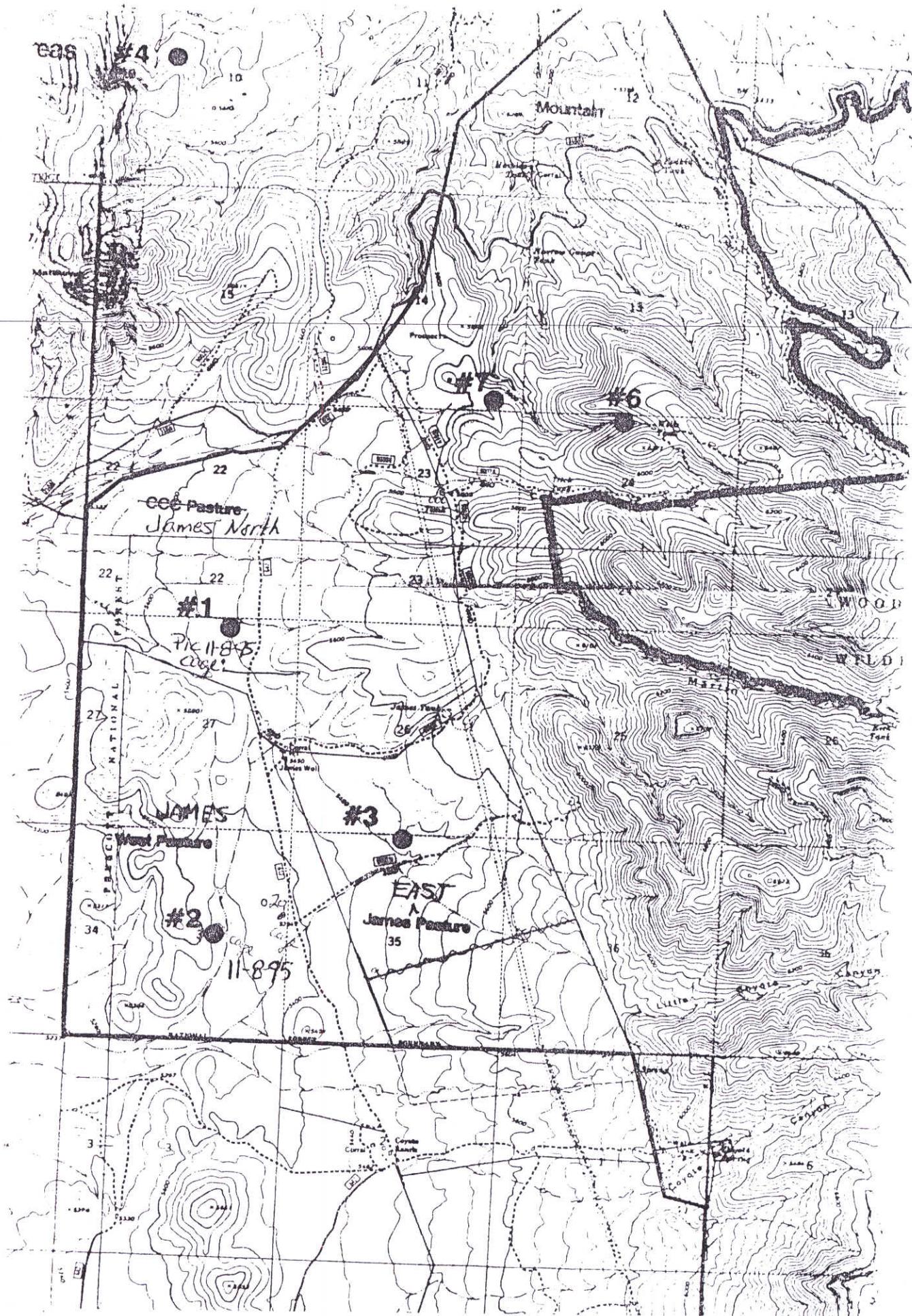
Permittee has responsibility to contact Forest Service when monitoring indicates that cattle moves more than two weeks off the scheduled date are needed. This applies to both early moves (to prevent over-utilization) and deferred moves (to stay until utilization levels are reached). Permittee has responsibility to move stock within or between units or off the allotment when utilization limits are reached. Moves to new units or off the allotment require consultation with Forest Service unless the move date is within 2 weeks of date shown in Annual OPerating Plan. See item on grazing-fee credit below.

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. Credit will not be granted based on year-end actual use calculations.





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 _a) utilization by weight:	15%
Little bluestem (Ans _c) 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_a utilization by weight = 50 percent of proper use
30% Ans_a 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.