MANAGEMENT PLAN

HENRY CREEK C. & H. ALLOTMENT

REPUBLIC RANGER DISTRICT

COLVILLE NATIONAL FOREST

REGION SIX

Prepared By: _____ Date 6/24/76

Reviewed By: _____ Date Oct. 12 '76
Permittee

Recommended By: _____ Date 6-30-76
District Ranger

Recommended By: _____ Date _____
Range Staff

Approved By: _____ Date _____
Forest Supervisor

I. Management Objectives

A. Implement range management which avoids unacceptable resource damage.
B. Optimize usable forage production and utilization in coordination with other resources.
C. Maximize permittee participation and responsibility in planning and executing the allotment management plan.

II. Management Requirements

A. Establish a rotational grazing system.
B. Adhere to the livestock management requirements.
C. Implement and maintain needed structural and non-structural range improvements.
D. Monitor and evaluate requirements towards meeting management objectives.

III. Allowable Use Criteria

A. Unacceptable resource damage is defined as:

1. Basic Resource Damage due to livestock grazing is soil loss, soil displacement, or soil compaction that impairs productivity of soil and water below the level restored naturally during the grazing cycle.

Definitions of terms used above:

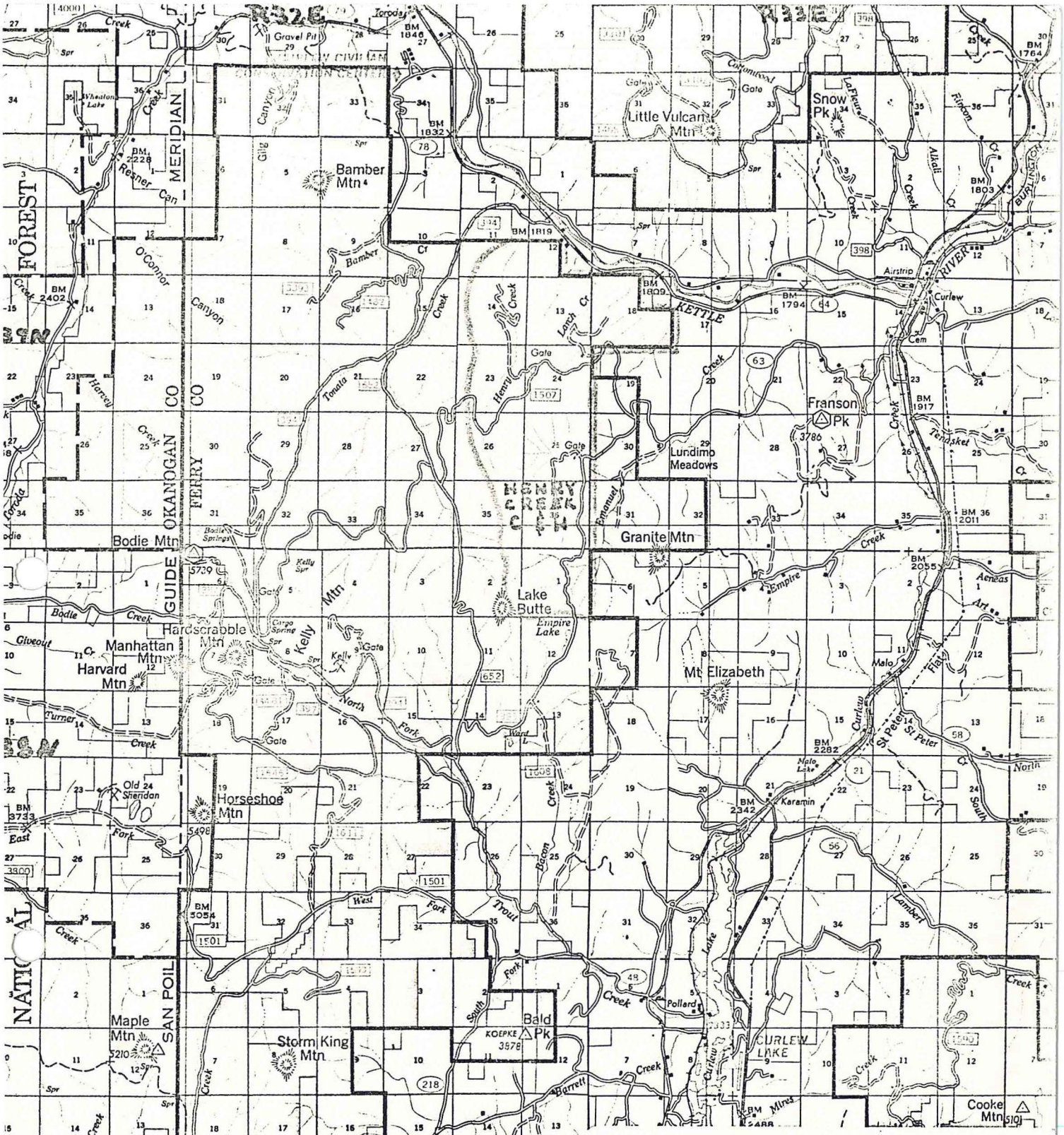
a. Soil Loss - Soil which has entered the stream channel, whether permanent or intermittent or permanently removed by wind.
b. Soil Displacement - Soil which has been redistributed without entering the stream channel or being redistributed by the wind.
c. Soil Compaction. Is an increase in the bulk density which extends beyond one grazing cycle. (Vertical displacement.)
d. Examples of acceptable areas where damage limits may not apply i.e.:
   1. Water developments
   2. Trails
   3. Corrals

2. Damage to Resources Other Than the Basic Soil Resource occuring when resource management objectives are not met. For the purpose of this definition, damage to vegetation is limited to too much or unplanned use.

B. Range readiness based on the soil conditions and growth stage of key plants. See Section IX, Evaluation supplementry.

C. Optimum use (% utilization), deferment or rest based on key plant physiology requirements for forage productions, vigor, regrowth, and reproduction. See Section IX, Evaluation supplementry.

D. Domestic livestock grazing is limited to cattle under this plan.



VICINITY MAP

HENRY CREEK

C & H ALLOTMENT

REPUBLIC RANGER DISTRICT

COLVILLE NATIONAL FOREST

REGION 6

Scale 1/2" = 1 Mile

April 1975 J. McClusky

IV. Allotment: Area and Estimated Capacity

The gross allotment area is 5872 acres, all of which is National Forest land. (See Appendix I and Appendix (map) III.)

The general grazing classification for a rotational grazing system is as follows:

Suitable Acres:	4415 acres	75%
Unsuitable Acres:	1457 acres	25%
Gross Acres:	5872 acres	100%

A more complete breakdown is shown in the Appendix (Appendix I).

Potential forage production and an indicated carrying capacity (A.U.M.) have been extrapolated based on 50% utilization of suitable range area and on a daily dry weight forage requirement (34 lb./day) for a 1000 pound cow with a 350 pound calf at side, for the estimated capacity.

Table 1: Class / Potential Forage Production / Acres Per CM

Class	PFP Pounds Per Acre	Acres Per CM
Good	500+	4-
Fair	300 - 500	4 - 8
Low	less than 300	8+

The indicated capacity is 360 cow months.

This is considered only as an indicated or "benchmark" capacity and is subject to other factors such as the efficiency of distribution and range condition and composition. Actual estimated capacity is to be determined by field monitoring and evaluation under the rotational grazing system.

V. Management System, Recommended Stocking and Permits

The grazing system will be a 2 unit deferred rotation system for a grazing period of 107 days, July 1st to October 15th (3½ months).

The beginning of the grazing season on National Forest will be deferred until July 1st.

All permitted cattle will enter or begin grazing alternately on unit one or unit two. (See allotment map overlay, Appendix III.)

Table 2: Summary of Units and Planned Use

Item	Unit One	Unit Two	TOTALS
Gross Acres	2862	3010	5872
Suitable (+ Transitory acres)	2085	2330	4415
Suitable Basic Acres	1190	1510	2700
Indicated CM's	171	213	384
Planned Cattle 1/	85	85	85
Planned Days	45	62	107
Planned CM's	127	176	303
Suitable A./CM	6.96	7.09	7.03

1/ Planned numbers based on fully implemented and operational deferred rotational system.

The currently permitted cattle numbers of the sale permittee is 50 head (cows with calves at side) the permit status of which is 45 term and 5 temporary.

Total permitted cattle numbers should be increased towards the estimated or planned capacity upon careful field evaluation of available forage and proper utilization. Increased numbers of permitted cattle if substantiated by field evaluation should be of 10 - 15 head increments biennially. This will allow evaluation of increased numbers in each unit as the initial and/or last grazing usage.

Table 3: Tentative Biennial Stocking Schedule

Year	Early Unit & No.	Late Unit & No.	TOTAL No.
1976	2 - 50	1 - 50	50
1977	1 - 50	2 - 50	50
1978	2 - 65	1 - 65	65
1979	1 - 65	2 - 65	65
1980	2 - 75	1 - 75	75
1981	1 - 75	1 - 75	75
1982	2 - 85	1 - 85	85
1983	1 - 85	1 - 85	85

VI. Livestock Management Requirements

A. All permitted cattle must bear a State of Washington registered brand and be one of brands declared on the permittee's grazing application.

B. All permitted cattle must bear a Forest Service approved ear tag and/or accounted for as per Forest Service requirements. See attached Appendix IV.

C. The number and breed of bulls placed on the Allotment range must conform the appropriate association rules and/or state statutes governing such matters.

D. It is the responsibility of the permittees to effect livestock movements and distribution in accordance with the prescribed rotation grazing system, annual plan of use, stock salting system and/or by instructions of the Forest Office in charge. The success of the systems depends on the effort and efficiency of the permittees.

E. Stock salt shall not be placed on or in the immediate proximity of roads, stock watering places or other areas of cattle concentrations. The "Drop" Salting System will be used.

THE "DROP" SALTING SYSTEM: This system puts the salting phase of range management in the hands of the user of the range. The system is flexible to fit the aspects of the individual range and the changing of the seasons. The name "drop" was given to it simply because the salt is dropped or placed in different areas depending on range management needs.

Salt should be placed where there is adequate forage. As that area becomes properly utilized, the salt should be moved, drawing the livestock into the lesser utilized areas. Salt should not be placed on water courses, watering places, main roads and other areas of other concentrated uses.

The range should be salted in amounts in proportion to the number of stock or at least one block for each ten head of cattle.

The first distribution should be made prior to the grazing season or at the time of entering on the range.

F. Construction and maintenance of Range Improvements as per following tables will be carried out in a timely manner for maximum effectiveness. Tables of existing and proposed range improvement construction and maintenance programs are to be revised and/or superceded as status, needs or changes warrant.

Table 4 EXISTING IMPROVEMENTS June 25, 1976

Date	IMPROVEMENT Number	Name and Location	CONSTRUCTION RESPONSIBILITY Material	Equip.	Labor	Maint.	FACILITY Type	Capacity-Quantity	Cost
1970		Henry-Empire Cattleguard NE Sec.12, T38N, R32E	F.S.	F.S.	F.S.	F.S.	Steel, 8' x 14'	H20	600
1974		Empire-Emanuel Cattle-guard SE Sec.25, T39N, R32E	F.S.	F.S.	F.S.	F.S.	Steel, 8' x 14'	H20	700
1960		Wild Echo Springs SW Sec.13, T 39 N, R32E	F.S.	F.S.	F.S.	Permittee	Wood, Plank	200	400
1950		Louie Spring SW Sec.36, T39N, R32E	F.S.	F.S.	F.S.	Permittee	Wood, Plank	200	500
1960		Empire Spring SW Sec.1, T38N, R32E	F.S.	F.S.	F.S.	Permittee	Wood, Plank	200	500
1950		Hedin Spring NE Sec.25, T39N, R32E	F.S.	F.S.	F.S.	Permittee	Steel, ___ x ___	500	500
1973		Empire-Emanuel Fence SE Sec.1, T38N, R32E	F.S.	F.S.	F.S.	Permittee	Steel, 4-Wire	1.25 mi.	1500
1973		Empire-Emanuel Fence SE Sec.25, T39N, R32E	F.S.	Permittee	Permittee	Permittee	Steel, 4-Wife	.25 mi.	300

Table 5 — Proposed Improvements — June, 25, 1976

IMPROVEMENT Date	Number	Name and Location	CONSTRUCTION RESPONSIBILITY Material	Equip.	Labor	Maint.	FACILITY Type	Capacity-Quantity	Cost
New Construction									
77/78		Tonata-Henry Cattleguard SE Sec.23, T39N, R32E FD. Rd. No. 1507	F.S.	F.S.	F.S.	F.S.	8' x 14' steel, H20 Loa 8' x 14' Base	One One	1000 200
77/78		Tonata-Henry Fence SE Sec.23, T39N, R32E NW Sec.12, T38N, R32E	F.S.	F.S.	F.S.	Permittees Henry 15% Tonata 85% Cost Distribution	4 wire, Steel post Henry Tonata	4 mi. ± 0.6 mi. 3.4 mi.	8800) 1320 6480
77/78		Mosquito Lake Fence SE Sec.26, T39N, R32E SW Sec.24, T39N, R32E (Management Fence between Unit One & Unit Two) as needed*	F.S.	Permittee	Permittee	Permittee	3 wire, steel post	2 mi.*	4400
77/78		Stockwater Developments Unspecified Location	F.S.	Permittee	Permittee	Permittee	Steel trough, 600 gal. etc.	2 ea.	1300
77/78		Stockwater Developments	F.S.	Permittee	Permittee	Permittee	Steel troughs, 600 gal. Supply Line Plastic Collection System Enclosure	3 ea 300' 300' 600	1200

VIII. Implementation and Alternatives

Implementation can begin in 1976. Unit two has been selected as the initial unit to precede anticipated logging activities on this unit this year.

It should be then a matter of alternating the periods of use for these two, more or less, natural units.

Prior to any subsequent increases in stocking the Tonata/Henry Allotment Boundary fence and cattleguard in F.D. Rd. No. 1507 should be constructed. Past and present timber sale activities will have completely destroyed the effectiveness of this once adequate natural barrier.

Subsequent management unit fences (Mosquito Lake Fence) priority of construction is greatest through Section 26 (west end) with intermittent sections constructed as needed to contain cattle in the appropriate unit.

Existing water developments should be upgraded and the old wooden plan troughs replaced. New stock water developments on the northern end of Unit One are desirable to encourage better utilization in those areas. Possible potential water sources warrant further investigation.

An alternative 3 unit deferred rotation grazing system at the permittees option is feasible. It would simply include the permittee controlled adjacent lands in Sections 19, 30, 31, and 32, T 39N, R 33E, as a third unit.

Table 6: Alternate Deferred Rotation System

Year	Grazing Use Sequence		
	Early	Mid Season	Late
First	3	2	1
Second	3	1	2
Third	1	2	3

Table 7: Summary of Units and Planned Use

	Alternate Deferred Rotation System			
	Unit One	Unit Two	Unit Three 1/	TOTAL
Gross Acres	2862	3010	1880	7752
Suitable Acres	1190	1510	1440	4140
Indicated CM	171	213	180	564
Planned Cattle	125	125	125	125
Planned Days	40	50	47	137
Planned CM	166	208	195	569
Suitable A./CM	7.16	7.25	7.17	7.27

Figures shown are estimates of the potential of a fully developed, implemented and operating deferred rotation system anticipating the normal year climate.

1/ Private land contribution can be variable.

IX. Evaluation

A. Monitoring of the allotment area and evaluation of the information will be necessary to determine whether management requirements will meet the objectives and/or what if any changes are needed.

Specific or subsequent evaluations, i.e.: Range readiness, key species, key areas, carrying capacities, etc., will be inserted and/or superceded as supplementary or replacement pages to this section.

B. Depending on funds and manpower available, data collection will be limited to several recurrent inspections annually by simple visual and/or minimal measurement, and appropriately recorded and/or graphically displayed on maps. Some of the observations measurements may be made coincidentally with each other. Specific items to be checked for include:

1. Range Readiness . . . . . Vegetative and soil condition.
2. Pattern of Use. . . . . Key areas and key plants.
3. Utilization . . . . . Per cent use.
4. Resource Damage . . . . . Basic (soil) and other resource.
5. Range Improvements. . . . . Construction and Maintenance compliance.

C. Additional data to be gathered as the situation warrants include:

1. Plant Vigor. . . . . Key plants on key areas.
2. Soil and Vegetation trends . . . . . Per grazing system cycle using photo point technique.
3. Production . . . . . Forage weight.

D. Range environmental analysis and mapping will be kept current as significant changes occur, i.e.: transitory range, range conditions, etc.

E. Key areas will be determined from successive observations and utilization checks and graphically recorded on an allotment map overlay.

F. Key plants will be defined from observation and study in conjunction with the determining of key areas and other suitable range lands.

G. A Record of Grazing Use (see Appendix V) will be kept to indicate permitted and/or actual use.

Evaluation: June 21, 1976

Range Readiness: Present indicators and criteria are:

Pinegrass	Caru	4"-6" foliage leaves
Sandberg bluegrass	Pose	Seed heads in drough stage
Bluebunch wheatgrass	Agsp	8" foliage, seed stalks showing
Idaho fescue	Feid	5" foliage leaves
Common yarrow	Acmi	Flower stalks beginning to show
Arrowleaf balsamroot	Basa	Leaf 3/4" developed, beginning to flower
Serviceberry	Amal	Part of blossoms out
Snowberry	Syal	7-8 pairs (each bud) leaves unfolded

Soils fairly dry and firm.

Key Areas: Are not, as yet, specifically defined and should be eventually determined by subsequent use and utilization pattern monitoring and documentation.

Key Species: Key species may vary with the different key areas, and are yet to be determined. Pinegrass, by virtue of its predominance (70-80%), is a key species.

Every opportunity should be taken to manipulate species and improve species composition with grass specie compatible and complementary to the pinegrass. Pinegrass palatability and nutritive value rapidly deteriorate by mid-summer in the general elevations.

Utilization: Recommended utilization for implementing the deferred rotation system is to approximate 50%. Higher utilization may be attainable for a fully developed rotational system.

Carrying Capacity: Anticipated increases will depend on the degree of development and efficiency of operating the grazing system, as well as prevaling climate and forage conditions. The basic potential is there and the rotational system should enhance forage condition, volume, and utilization.

Any private land contributions toward formulating a third private land pasture unit should roughly equivalent to one of the Forest Service pasture units. Actual permitted stocking would be dependent on the contributed portion.

Other Remarks: Lack of fencing on the Forest Service property line (Sections 19 & 30, T39N, R33E, W.M.) presents a potential trespass problem, or an excessive herding situation. Under the alternate deferred rotation system where such a fence would be a management distribution fence, financial aid may be possible through the ASCS practice R15-Z.

The top half of Section 19, T39N, R33E, W.M., could also be included in a private land alternative as part of Unit One, if a drift fence were constructed diagonally SW to NE from the vicinity of the existing cattleguard (NW¼, Section 19) toward the NE corner of said Section (see map overlay); otherwise cattle can and may drift off the national forest allotment. This would depend on the permittee being willing and able to negotiate a suitable arrangement with landowners for such grazing privileges.

There is no existing fence to the existing cattleguard in the NW¼, Section 19, T39N, R33E, W.M., on FD. Rd. #1507.

AREA AND RANGE PRODUCTION ... CAPACITY

Henry Creek C&H ALLOTMENT

Colville NATIONAL FOREST Republic RANGER DISTRICT

Compiled March 21, 1975 By John B. McCluskey

ITEM	NATIONAL FOREST LANDS			ALIENATED OWNERSHIP LANDS			ALLOTMENT TOTAL LANDS		
Acres		Acres	%		Acres	%		Acres	%
Gross		5,872	100		0	100		5,872	100
(Subject to) CLOSURE		-	-					-	-
Unusable or UNSUITABLE		1,457	25					1,457	25
SUITABLE		4,415	75					4,415	75
PRIMARY		814	14					814	14
(Transitory) (Prime/Xxxx)		1,735	30					1,735	30
SECONDARY		1,866	32					1,866	32

VEGETATIVE TYPE	a.	%	ACRES BY FORAGE PRODUCTION/CONDITION CLASS Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
P6	814	32	14	380	420	-	-	-	14	380	420
TP6	1735	68	43	375	1317	-	-	-	43	375	1317
Total	2549	a.	57	755	1737	-	-	-	57	755	1737
	58	%	2%	30%	68%						
S6	1735	93	54	744	937				54	744	937
TS6	131	7	9	7	115	-	-	-	9	7	115
Total	1866	a.	63	751	1052	-	-	-	63	751	1052
	42	%	4%	40%	56%				4%	40%	56%
TOTAL UITABLE	4415	100	120	1506	2789				120	1506	2789
	100	%	3	34	63				3	34	63

Appendix II

RECORD OF GRAZING USE

HENRY CREEK Allotment

Republic Ranger District Colville National Forest

Year	Unit or Key Area	Planned/Permitted Use				Actual Use				Proper Use	
		Number	Dates From - To	AUM	% Use	Number	Dates From - To	AUM	% Use	AUM	%
1976											

GRAZING PERMIT - PART 3	Page _____ of _____

RULES FOR EAR TAGS REQUIRED FOR CATTLE GRAZING UNDER

PERMIT ON NATIONAL FOREST CONTROLLED LANDS

1. All permitted cattle, 6 months of age and older, when entering on National Forest controlled lands must bear a Forest Service approved ear tag bearing a sequential number or letter or number/letter character combination identification. Offspring of permitted cattle, under 6 months of age, when entering National Forest controlled lands are not required to bear an ear tag.

2. Permittees will furnish the required ear tags (condition of grazing permit, Part 2, Section 6e) beginning with the 1976 grazing season.

3. Permittees will furnish in writing the identification number of permitted animals put on National Forest controlled lands to the Forest Officer in charge within 10 days of their entry on said controlled lands each grazing permit period.

4. Identification numbers and/or letter characters must be limited to a maximum of four characters, nominally a minimum of one inch in height displayed horizontally on the lower fromt of the ear tag. Line width of characters shall be a minimum of 1/8 inch in a contrasting color to the ear tag color. The required tag must have a display face of a minimum of 2-3/4 inches wide by 2 inches high.

   The permittees recorded brand may also be displayed on the face of the ear tag above the identification number.

   The reverse side (back) of the ear tag may be used for any other identification or data the permittee may wish; name and address, etc.

5. Each permittee must obtain an approved ear tag color from the Forest Service. Colors will be assigned on the basis of the permittees allotment and adjacent permittees, allotments, other adjacent cattle operations and current use of acceptable ear tags.