ALLOTMENT MANAGEMENT PLAN
APACHE MAID ALLOTMENT
1995-2005

LONG VALLEY AND BEAVER CREEK RANGER DISTRICTS
COCONINO NATIONAL FOREST
REGION THREE

Plan Prepared By: Ken Vensel, Range Conservationist — 12/19/95 Date

Dave Jordan, Ranch Foreman — Date

Agreed To By: C.W. Neely, Ranch Owner — 12-19-95 Date

Approved By: Bruce C. Greco, District Ranger, Long Valley Ranger District — 12-19-95 Date

for Bruce C. Greco, Ken Anderson, District Ranger, Beaver Creek Ranger District — 12-19-95 Date

TEN YEAR ALLOTMENT MANAGEMENT PLAN
APACHE MAID GRAZING ALLOTMENT

ALLOTMENT BACKGROUND

The Apache Maid grazing allotment encompasses approximately 168,500 acres and extends from the town of Cornville on the West approximately 37 air miles to the private land holdings of Hay Lake on the East. It is bordered by the Mormon Lake ranger district on the North and the Beaver Creek grazing allotment on the South.

For clarification in communication the area has been divided into three use zones. They are as follows:

Winter Use Zone--That area which lies West of I-17. This zone contains approximately 41,140 acres and is divided into the Cornville, House Mountain, Beaverhead Flats, Winter, Headquarters, Horse, Middle Verde, White Hills and Hog pastures.

Transition Use Zone--That area which lies between I-17 on the West and FH-3 on the East. This zone has approximately 63,920 acres and is split into the following pastures: Rattlesnake, Blue Grade, Rarick, Round Mountain, Stoneman, Woodland, Campbell Springs, Blind Lake and Gash Flat West, Middle, East and Horse.

Summer Use Zone--That area which lies from FH-3 on the West to the private land holdings of Hay Lake on the East. This Zone contains approximately 63,440 acres and is divided into the following pastures: Hutch, Pine, Cabin, Lanes, Bull and Horse. This acreage figure also contains the yearling steer pastures which are: Prairie Dog, Triangle, Willow Valley North, Willow Valley South and Holding.

The current 10 year grazing permit for the Apache Maid allotment is:

1045 cattle yearlong
600 yearlings 5/15-10/15

NON-USE

The Apache Maid Ranch will not stock above 90% of permitted numbers in 1995 and not above 80% of permitted numbers in 1996 with the understanding that:

1. The structural improvement schedule be reduced from ten to five years.
2. The ranch will comply with management requirements set forth in the new Allotment Management Plan, including herd amalgamation and graze periods allowed in each pasture.

RESTORATION OF NON-USE

In order for ten percent of the non-use to be restored, the following conditions must be met:

A. The proposed improvements scheduled from 1995 thru 1997 must be in place and functional. These improvements are:

Year	Improvement	Pasture
1995	6 Earthen Tanks	Hog
1995	2 Earthen Tanks	Rattlesnake
1995	1 Earthen Tank	Blue Grade
1995	1 Earthen Tank	Stoneman
1995	4 miles electric fence	Winter
1995	7.5 miles elec. fence	Hutch-Pine
1995	5 cattleguards	Hutch-Pine
1995	5 miles pipeline	Middle Verde
1995	1 Storage	Middle Verde
1995	4 Drinkers	Middle Verde
1996	5 miles pipeline	Winter
1996	1 Storage	Winter
1996	4 drinkers	Winter
1996	6.5 miles barb wire fen	Middle Verde
1996	5 miles fence relocation	Middle Verde
1997	6 miles pipeline	Beaverhead Flat
1997	6 drinkers	Beaverhead Flat
1997	1 storage	Beaverhead Flat
1997	1/2 mile Barb wire fen.	Blue Grade
1997	4 miles pipeline	Middle Verde
1997	4 drinkers	Middle Verde
1997	1 storage	Middle Verde

B. Graze periods of 20 days or less during plant growth is experienced in the Winter and Transition Use Zones.

C. Graze periods reduced from 90 to 45+ days in the Summer use Zone.

D. Graze periods not exceeding 5 days during plant growth in the riparian areas of the Winter Use Zone.

E. Herd amalgamation of the cow herd is used in the Winter Use Zone to treat the overrest condition.

F. Supplemental feeding used as a tool to treat watershed conditions. Protein blocks, if used, will be moved every other day and placed in deteriorated watershed areas. If seed is available, these areas will be seeded prior to placement of the blocks. If feeders are used, they will be placed in deteriorated watershed areas and moved each time they are filled.

G. Compliance from the ranch on scheduled livestock moves is adhered to and any changes to these moves will be agreed to, in advance, by the Forest Service.

It is anticipated that these conditions can be met by January 1, 1998. If these conditions are met prior to January 1, 1998, the 10% non-use will be restored at that time.

In order for the remaining 10 percent of the non-use to be restored, the same conditions apply and in addition:

A. All the improvements scheduled for 1998 and 1999 are in place and functional. These improvements are as follows:

Year	Project	Pasture
1998	2.5 miles pipeline	Horse
1998	3 Drinkers	Horse
1998	2 miles pipeline	Cornville
1998	2 drinkers	Cornville
1998	1 storage	Cornville
1998	9 miles fence	Hutch-Pine
1998	6 cattleguards	Hutch-Pine
1999	4 miles electric fence	Beaverhead Flat
1999	1 cattleguard	Beaverhead Flat
1999	3 miles electric fence	Middle Verde
1999	3 miles electric fence	Horse
1999	2.5 miles electric fen.	Willow North
1999	2 cattleguards	Willow North
1999	2.5 miles electric fen.	Willow South
1999	3.5 miles electric fen.	Round Mnt.
1999	1 cattleguard	Round Mnt.
1999	1 1/2 miles Barb wire fence	Hog

B. Graze periods of 20 days or less during plant growth in the summer use zone for both the cow and steer herds.

C. Additional flexibility in the Winter Use Zone by the addition of additional pastures to insure 20 day grazes.

Again, if these conditions can be met prior to January 1, 2000, the remaining 10 percent non-use will be restored at that time.

MANAGEMENT OBJECTIVES

The management objectives of this plan are:

1. Improve the water cycle, mineral cycle, plant energy flow and maintain high plant successional levels.

2. Maintain and improve plant diversity.

3. Maintain and improve watershed conditions while at the same time meeting the concerns of wildlife, dispersed

recreation, scenic values and archeology.

4. Management will incorporate elk-cattle interactions.

5. Maintain high livestock performance regarding conception rates and weaning weights.

MANAGEMENT STRATEGIES TO MEET THESE OBJECTIVES

The following practices will be used to meet objectives:

1. To reduce and minimize the impacts of overgrazing the following graze periods will be initiated when the necessary improvements are in place:

   a. 20 day or less graze periods during perennial plant growth in other than the Dry Beaver and Red Tank Draw riparian areas. In these areas, 5 day grazes during perennial plant growth will be incorporated.

2. To accelerate improved watershed conditions in the more brittle environments of the Winter Use Zone, each pasture will be grazed every year for shorter graze periods with higher stock densities. The tools of Fire, Animal impact and technology in the form of fences and water development will be used to accomplish this. Along with these tools, treating the whole ecosystem, weak link analysis, biological planning, herd effect, cause and effect analysis along with human creativity will also be used in treating watershed conditions.

3. Increased stock densities will be used in all three use zones through herd amalgamation but with reduced graze periods.

4. Once livestock leave the Winter Use Zone and enter the Transition and Summer Use Zones, management strategies change somewhat. At this point, the tool of range rest is incorporated into the equation due to the presence of two grazing ungulates (elk and livestock). It becomes necessary to graze half and rest half of the country every other year to achieve adequate plant rest.

5. This type of management will be used in all but the steer pastures. In these units it becomes necessary to graze the pine bunchgrass pastures every year and target the last two units grazed every year for the following years spring elk use. The pastures grazed early by livestock in this vegetative type recover quickly. The rank feed is undesirable from an elk forage standpoint the following spring. The pastures targeted for late livestock use will be changed every year.

6. In the past, the pastures scheduled for rest in the Transition Use Zone could be grazed on the way back down by livestock if agreed to by the ranch and Forest Service. During the course of this plan, scheduled rested pastures within the Transition and Summer Use Zones will not be grazed by livestock. These rested pastures will be for winter wildlife use in the Transition Use Zone and plant recovery in the Summer Use Zone. If scheduled pastures grazed in the spring by livestock have not recovered enough for full livestock numbers to graze them a second time in the fall, the numbers will be reduced during the fall gathering.

7. Past management practices and compliance by the ranch have not been at desired levels. They have however, recently taken positive steps to correct this situation by hiring competent people in their top management positions.

OVERGRAZING AND OVERREST

Overgrazing and overrest are recognized as the two main items that have led to deteriorated range conditions over the past years. To reduce the impact of overgrazing a reduction in the length of graze is necessary. A graze period not exceeding 20 days during plant growth will greatly reduce overgrazing by livestock.

Overrest can be treated using the guidelines of stock density, herd effect and animal impact during slow growth and more effectively during plant dormancy. The length of graze can be extended during plant dormancy to aid in treating this overrest condition. Fire will also be a tool that will be used, where possible, in treating overrest.

Grazing move dates have been worked out but must be adjusted throughout the year to comply with actual plant growth. Actual graze periods will be adjusted immediately when both the ranch and Forest Service personnel have monitored pasture conditions.

YEARLY STRUCTURAL IMPROVEMENTS AND GRAZING SEQUENCE FOR YEARS 1995-1999 BASED ON NEW STRUCTURAL IMPROVEMENTS

-------1995-------

LIVESTOCK NUMBERS --90% of 1045 cattle
90% of 600 Yearling Steers

Cattle (Cows-Bulls)	885	yearlong
Yearling heifers	55	yearlong
	940	Total
Yearling steers	540	5/15-10/15

SPECIFIC CHANGES IN MANAGEMENT

1. Numbers of cows, bulls and heifers will not exceed 940 head during 1995.

2. Winter Use Zone

Heifers--There will be no yearling heifers in 1995. Total grown livestock numbers can be 940 head.

Cows--Past management practices were to split the cow herd into several pastures for up to 60 day grazes. The herd in recent years has been amalgamated during the last graze period into the Winter Cabin pasture for a 30 day graze period which is during spring plant growth. These low density grazes for long time periods have resulted in poor range conditions. During 1995 the cow herd will be amalgamated with pasture grazes for 30+ days (Winter Cabin, Beaverhead Flat, and Cornville). Graze periods in the Winter Use Zone during past management and during 1995 will be from 1/1-4/1.

Bulls--In past years the bulls have used the Cornville and Middle Verde pastures from 12/1-3/20. During 1995 the bulls will use the Middle Verde Pasture from 12/1-3/1.

3. Transition Use Zone

Cows--Past management practices in the western pastures of this use zone (Rarick and Round Mountain) have had long graze periods, up to 60 days, during spring growth periods. Winter graze periods in these units have been for 30+ days with the whole cow herd. Smaller numbers, up to 200 head, remained in these units all winter and through the following spring. Graze periods in this use zone have been from 4/1-7/10, and 10/15-12/31 plus smaller numbers all winter and

the following spring. During 1995 the western units will have 30 day grazes during spring plant growth and 20 day grazes in the fall. All livestock will be removed from this use zone by 12/31. Overall graze periods for this zone will be from 4/1-7/10 and 10/15-12/31 respectively. The use half, rest half rotation schedule will be adhered to.

Bulls--Past management has been to use the Rattlesnake pasture from 10/20-11/20. During 1995 the Rattlesnake pasture will be used from 11/2-11/30.

4. Summer Use Zone

Cows--Past management practices have been 90+ day grazes every other year. During 1995, 45+ day grazes will be incorporated every other year.

Bulls--Past management has been to separate the bulls from the cows and put them into the Bull pasture from 9/1-10/1. Some of these bulls stayed in the Bull pasture until after shipping in the fall (10/15+). This resulted in a 30-50 day graze the majority of which was during the fall growing season. During 1995, the bulls will be separated from the cows and placed in the Bull pasture from 10/7-11/1. This will result in a 20+ day graze during slow to dormant plant growth.

Yearling Steers--Past management practices have been for graze periods for up to 60 days during plant growth in fairly large units. There will be no change during 1995.

GRAZING SEQUENCE FOR 1995

1/1-2/28	Middle Verde	Bulls	84
1/1-3/3	Horse (Winter)	Heifers	00
1/1-2/1	Winter	Cows	856
2/2-2/15	Beaverhead Fl.	Cows	856
2/16-2/28	House Mtn.	Cows	256
2/16-2/28	Beaverhead Fl.	Cows	600
3/1-3/27	House Mtn.	Cows, Bulls	280
3/1-3/15	Beaverhead Fl.	Cows, Bulls	660
3/16-3/26	Cornville	Cows, Bulls	660
3/27-3/28	Trap	Cows, Bulls	660
3/28	Trap	Cows, Bulls	280
3/29-5/20	Rnd. Mtn.	" "	940
5/21-6/9	Woodland	Cows, Bulls	940
6/10-6/30	Campbell Spr.	" "	940
7/1-8/23	West Pine	Cows, Bulls	940
8/24-10/5	East Pine	" "	940
10/6-10/15	Lane, Cabin	Cows	856
10/16-10/17	Shipping	Cows	856
10/18-10/28	Campbell Spr.	Cows,	856

10/29-11/16	Woodland	"	856
11/17-12/31	Rnd. Mtn.	"	856
10/6-11/1	Bull	Bulls	84
11/2-12/1	Rattlesnake	Bulls	84
12/2-12/31	House Mtn.	Bulls	84
5/15-6/20	Willow South	Steers	540
6/21-7/20	Triangle	Steers	540
7/21-8/21	Prairie Dog	Steers	540
8/22-10/7	Willow North	Steers	540
10/8-10/15	Holding	Steers	540

IMPROVEMENTS (Costs are only estimates and may vary plus or minus. Actual individual improvements will be necessary to implement management.)

Project	Costs F.S.	Ranch
Earthen Tanks-Hog, Rattlesnake Blue Grade, Stoneman (10)	$10,000	0
Fence Winter Pasture (4 miles electric)	2,200	$ 2,200
Fence Pine & Hutch Pastures (7.5 miles electric)	3,575	3,575
Cattleguards (5)	12,500	0
Middle Verde Pipeline (5 miles pipeline, 2 storages, 3 drinkers)	3,000	24,500
Totals	$31,275	$30,275

ADDITIONAL INFORMATION

1. Early and/or heavy snows could cause possible changes in pastures moves on the way back down to the winter country.

2. Storages are necessary for summer wildlife use and as insurance for pasture scheduling in case of well problems.

3. Pipelines will be 1 1/4" for quick recharge and drinkers will have a minimum of 1000 gallons storage. If larger pipe is used it must fit existing equipment (spool and ripper size).

4. Feeders will be moved a minimum of once a week and placed in areas of deteriorated watershed conditions. Areas will be seeded prior to feeder movement. If protein blocks are used, blocks will be moved every other day and areas seeded prior to placement of blocks. Forest service will do the seeding for the first year. The following years the ranch will do the seeding with the Forest Service furnishing the seed.

5. Forest Service will fence off an exclosure on a portion of Dry Beaver Creek in the northwest portion of the Winter pasture. The cost of this exclosure is not listed in the improvement schedule and will be constructed and maintained by the Forest Service. It is not included in the 50-50 cost share.

------- 1996 -------

LIVESTOCK NUMBERS--80% of 1045 cattle
80% of Yearling Steers

Cattle (Cows-Bulls)	788 yearlong
Yearling Heifers	60 yearlong
	848 Head Total
Yearling Steers	480 5/15-10/15

SPECIFIC CHANGES IN MANAGEMENT
1. Numbers of cows, bulls and heifers will not exceed 848 head during 1996.

2. Prior to 1994 the Gash Flat pastures were managed under a four pasture deferment system from 5/15-10/15 with 60 yearling heifers. This management has been changed to where 2 of the 4 pastures are alternately grazed every other year for 60 days from 5/15-7/15. Following the 60 day graze in the Gash Flat pastures the heifers are incorporated into the main cow herd.

3. Winter Use Zone

Heifers--Prior to 1994 management of the heifers was under no specific schedule. They were placed in the dairy, put in pastures before or after the livestock graze by the cow herd. During 1996 they will be placed in the Horse pasture from 12/12-3/20. The majority of this time frame is during plant dormancy. If plant growth occurs it will most likely be during March. These are first calf heifers and if calved out prior to 3/20, will be placed into the main cow herd.

Cows--Prior to 1994, management practices were to split the cow herd into several pastures for up to 60 day grazes. The herd in recent years has been amalgamated during the last graze period into the Winter Cabin pasture for a 30 day graze period which is during spring plant growth. These low density grazes for long time periods have resulted in poor range conditions. During 1995 the winter pasture was split into two units. In 1996 livestock will graze Winter Cabin South for 30 days with the entire cow herd from 1/1-2/1 and graze Winter Cabin North for 5 days during the growing season, 4/9-4/13. IT IS NECESSARY THAT THE PIPELINES SCHEDULED FOR CONSTRUCTION IN THE WINTER UNIT BE IN PLACE

AND DRINKERS FUNCTIONAL PRIOR TO LIVESTOCK ENTRY. Beaverhead flat which had been grazed prior to 1995 for up to two months with a large portion of the cow herd will be grazed for 30 days with the entire cow herd in 1996. The scheduled graze period is from 3/9-4/8. This will be the only pasture in the Winter Use Zone which will receive over a twenty day graze during plant growth. Waters were developed in the Middle Verde pasture during 1995. This pasture has been used in past years, including 1995, with the Bull herd from 12/1-3/20. This year the entire cow herd will be grazed in this unit from 2/2-3/2. Graze periods in the Winter Use Zone during past management and during 1994 were from 1/1-4/1. During 1996, graze periods have been extended 13 days to 4/13. This will allow for more recovery of the cool season grasses in the Transition Use Zone.

Bulls--In past years and during 1995, bulls have used the Cornville and Middle Verde pastures from 12/1-3/20. During 1996 the bulls will use the Winter Use Zone as follows:

1/1-1/21 House Mountain
1/22-2/21 Middle Verde (Ahead of Cow herd)
2/22-3/2 Cornville (Cows will be placed in pasture with bulls on 3/3)

4. Transition Use Zone

Cows--Historically the western pastures of this use zone (Rarick and Round Mountain) have had long graze periods, up to 60 days, during spring growth periods. Grazing periods usually started in these units around 4/1 which is during fast growth of the cool season grass community. Overgrazing, due to the length of graze and time of year, was a yearly occurrence. Winter graze periods in these units have been for 30+ days with the whole cow herd. Smaller numbers, up to 200 head, remained in these units all winter and through the following spring. Graze periods in this use zone have been from 4/1-7/10, and 10/15-12/31 plus smaller numbers all winter and the following spring. In 1995 these units received a shorter 30 day graze, but at the expense of some overgrazing in the Winter Use Zone. During 1996 the western units will have a 25 day graze during spring plant growth and 20 day grazes in the fall. It is important to note that the spring graze will be 25 days later which should allow for some plant recovery and growth prior to livestock entry. During the fall graze, all livestock will be removed from this use zone by 12/31. Overall graze periods for this zone will be from 4/25-7/10 and 10/15-12/13.

Bulls--Past management has been to use the Rattlesnake pasture from 10/1-12/1. During 1995 the Rattlesnake pasture

was used from 11/2-11/30. This will continue in 1996.

5. Summer Use Zone

Cows--Past management practices have been 90+ day grazes every other year. During 1995, 45+ day grazes were incorporated every other year. This will continue through 1996.

Bulls--Past management has been to take the bulls off the cows and put them into the Bull pasture from 9/1-10/1. Some of these bulls stayed in the Bull pasture until after shipping in the fall (10/15+). This resulted in a 30-50 day graze some of which was during the fall growing season. During 1995 the bulls were taken off the cows and placed in the Bull pasture from 10/7-11/1. This resulted in a 20+ day graze during slow plant growth and/or dormancy. This same practice will continue in 1996.

Yearling Steers--Past management practices and during 1995, graze periods for up to 60 days during plant growth in the larger pastures have been occurring. There will be no change during 1996.

GRAZING SEQUENCE FOR 1996

Graze Dates	Pasture	Livestock	Numbers
1/1-1/21	House Mtn.	Bulls	80
1/22-2/21	Beaverhead Fl.	Bulls	80
2/22-3/2	Cornville	Bulls	80
1/1-3/2	Horse (Winter)	Heifers	55
1/1-2/1	Winter (S)	Cows	713
2/2-3/2	Middle Verde	Cows	713
3/3-3/18	Cornville	Cows,Bulls, H	848*
3/19-4/8	Beaverhead Fl.	Cows Bulls, H	848
4/9-4/13	Winter (N)	" " "	848
4/14-4/25	Blue Grade	" " "	848
4/26-5/20	Rarick	" " "	848
5/21-6/15	Stoneman	" "	783
6/16-7/10	Blind Lake	" "	783
7/11-7/21	Hutch (East)	" "	783
7/22-8/25	Hutch (East)	Cows,Bulls, H	848
8/26-10/5	Hutch (West)	Cows,Bulls, H	848
10/6-10/15	Lane, Cabin, Bg	Cows, H.	768
10/16-11/1	Blind Lake	" "	768**
11/2-11/22	Stoneman	" "	768
11/23-12/13	Rarick	" "	768
Snow will determine wheather cattle go to Blue Grade or Hog			
12/14-12/31	Blue Grade	Cows	713***
12/14-3/4	Horse (Winter)	Replac. Heif.	55
10/6-11/1	Bull	Bulls	80
11/2-11/30	Rattlesnake	Bulls	80

12/1-12/31	House Mtn.	Bulls	80
5/20-6/20	Middle Gash	Heifers	55
6/21-7/21	West Gash	Heifers	55
5/15-6/30	North Willow	Steers	480
7/1-8/5	South Willow	Steers	480
8/6-9/6	Prairie Dog	Steers	480
9/7-10/7	Triangle	Steers	480
10/8-10/15	Holding	Steers	480

* Ranch has option of placing heifers on private land until 5/20
** Ranch has option of taking heifers to private land
*** Heifers to Horse pasture

IMPROVEMENTS (Costs are only estimates and may vary plus or minus. Actual individual improvements will be necessary to implement management.)

Project	Costs F.S.	Ranch
Winter pasture pipelines (5 miles pipeline, 4 drinkers 1 storage)	$ 7,500	$19,000
White Hills Fence (7 miles Barb wire)	25,000	
Reconstruct 4 miles Barb wire fence in Middle Verde		14,000
	$32,500	$33,000

ADDITIONAL INFORMATION

1. Fence reconstruction along private land on the West side of the Middle Verde Pasture is necessary to hold livestock in this unit.

2. Approximately 7 miles of new barb wire fence is needed to form the South end of the Middle Verde and White Hills pastures. This fence will form an exclosure for the TE&S plants found in the area.

3. Insure pipelines are constructed to adequately use the two Winter Cabin pastures in the event that Dry Beaver Creek contains no water.

-------1997-------

LIVESTOCK NUMBERS

Cattle (Cows-Bulls)	788	Yearlong
Yearling Heifers	60	Yearlong
	853	Head Total
Yearling Steers	480	

SPECIFIC CHANGES IN MANAGEMENT

1. Numbers of cows, bulls and heifers will not exceed 853 head during 1997.

2. The ranch is taking extra efforts to meet the 20 day graze periods with limited pastures by moving heifers around to rested portions of pastures. They are also placing the heifer herd in pastures scheduled for a graze by the main cow herd during dormant periods.

3. If the projected Grazing Sequence for 1997 is followed and improvement schedule from 1995 thru 1997 is complete, overgrazing in the Winter and Transition Use Zones will be well under control. It will be reduced in the Summer Use Zone. This is based on the following growth rates by Use Zone:

Winter	Transition	Summer
3/1-4/30	3/15-6/1	4/1-6/1
7/20-9/1	7/20-10/20	7/20-9/30

The following table better illustrates this:

Use Zone	Pasture	Graze Period Days	Stock Density	Plant Growth Slow	fast	dormant
Winter (3/1-4/30;7/20-9/1)						
	White Hills	20	low	10	10	
	House Mtn.	20	low			20
	Horse Pasture	28	low			28
	Winter (S.)	5	medium		5	
	Winter (N.)	30	medium			30
	Middle Verde	38	low			38
	Middle Verde	20	medium		20	
	Cornville	29	medium	9	20	
	Beaverhead Fl.	38	medium	10		28
	Beaverhead Fl.	5	medium		5	
	Lower Hog	20	medium		20	

Transition (3/15-6/1;7/20-10/20)

Lower Rd. Mtn.	20	medium		20	
Lower Rd. Mtn.	20	medium			20
Upper Rd. Mtn.	20	medium		20	
Upper Rd. Mtn.	20	medium			20
Woodland	20	low			20
Woodland	20	low			20
Campbell Spr.	20	low			20
Campbell Spr.	20	low			20
Rattlesnake	30	low			30

Summer (4/1-6/1;7/20-9/30)

Pine East	41	low	6	30	5
Pine West	54	low	24	30	
Cabin, Lane	8	high			8
Bull	24	medium			24
Gash West	45	medium		30	15
Gash Horse	15	medium			15
Triangle	20	medium		10	10
Willow South	36	low			36
Prairie Dog	28	low		26	2
Willow North	52	low		45	7
Holding	5	high		5	
Holding	7	high			7

GRAZING SEQUENCE FOR 1997

Graze Dates	Pastures	Livestock	Numbers
1/1-1/21	House Mtn.	Bulls	80
1/22-3/1	Middle Verde	Bulls	80
3/2-3/10	Cornville	Bulls	80
1/1-2/28	Horse	Heifers	60
3/1-3/20	White Hills	Heifers	60
3/21-4/10	Middle Verde	Heifers	60
4/11-5/1	Lower Hog	Heifers	60
1/1-1/31	Winter N.	Cows	713
2/1-3/10	Beaverhead Fl.	Cows	713
3/11-3/31	Cornville	Cows, Bulls	793
4/1-4/5	Beaverhead Fl.	" "	793
4/6-4/10	Winter S.	" "	793
4/11-4/31	Lower Rd. Mtn.	" "	793
5/1-5/20	Upper Rd. Mtn.	" "	793
5/21-6/10	Woodland	" "	793
6/11-6/30	Campbell Spr.	" "	793
7/1-8/23	Pine West	Cows,Bulls, H.	853
8/24-10/5	Pine East	" " "	853
10/6-10/15	Lane, Cabin	Cows, Heifers	773
10/16-10/17	Shipping	" "	773
10/18-10/28	Campbell Spr.	" "	773*

10/29-11/16	Woodland	"	"	773
11/17-12/31	Rd. Mtn. Upper	"	"	773
1/1-1/20/98	Rd. Mtn. Lower	"	"	773
5/2-6/15	Gash Flat East		Heifers	60
6/16-6/30	Gash Horse		"	60
10/6-11/1	Bull		Bulls	80
11/2-12/1	Rattlesnake		Bulls	80
12/2-12/31	House Mtn.		Bulls	80
5/15-5/20	Holding		Steers	480
5/21-6/10	Triangle		Steers	480
6/11-7/17	Willow South		Steers	480
7/18-8/15	Prairie Dog		Steers	480
8/16-10/7	Willow North		Steers	480
10/8-10/15	Holding		Steers	480

*Ranch has option of removing heifers to private land

IMPROVEMENTS (Costs are only estimates and may vary plus or minus. Individual improvements will be necessary to implement management.)

Project	F.S.	Ranch
Beaverhead Flat, Winter Pipelines 6.0 miles pipeline, 6 drinkers, and 1 storage	$14,050	$19,050
Rd. Mnt. Fence 3 1/2 mile elec.	3,850	
Rd. Mnt. Cattleguard	2,500	
Middle Verde Pipeline (4 miles pipeline, 4 drinkers, 1 storage)	11,000	11,000
	$31,400	$30,050

ADDITIONAL INFORMATION

1. Lower Hog pasture is incorporated into management sequence.

2. Winter, Beaverhead Flat, Middle Verde are all incorporated into intensive management. All the above pastures meet the 20 day graze period during projected fast plant growth. The Cornville unit will not meet this criteria during 1997. This is due to the early graze (3/2-3/10) by 80 Bulls.

3. Reduced pressure on Transition Zone pastures on West end. Cattle will not enter Upper Round Mountain pasture until 5/1. Plant growth is anticipated to have fully recovered from the early spring elk use by this time.

4. Grazing period extended in the Winter Zone by 10 days and lessened in the Transition Zone which will help overall ranch management. Livestock will enter the Winter Use Zone 10-20 days later in 1998.

5. Once these graze periods can be adhered to and the aforementioned improvements have been constructed to adjust the graze periods to "actual" plant growth, 10% of the non-use numbers will be reinstated. This is anticipated to happen January 1, 1998.

------ 1998 -------

LIVESTOCK NUMBERS --90% of 1045 cattle
80% of 600 Yearling Steers

Cattle (Cows-Bulls)	886	yearlong
Yearling heifers	60	yearlong
	946	Total
Yearling steers	480	5/15-10/15

SPECIFIC CHANGES IN MANAGEMENT

1. Numbers of cows, bulls and heifers will not exceed 946 head during 1997.

2. Graze periods extended in the Winter Use Zone and decreased in the Transition Zone.

3. More control is in place in the Summer Use Zone as three pastures are being grazed instead of two.

4. Water is more readily available in the Horse and Cornville units with the addition of the Cornville and Horse pipelines.

GRAZING SEQUENCE FOR 1998

Graze Dates	Pasture	Livestock	Numbers
1/1-1/31	House Mtn.	Bulls	80
2/1-2/28	Beaverhead Fl.	Bulls	80
1/1-1/31	Blue Grade	Heifers	60
2/1-3/20	White Hills	Heifers	60
3/21-4/30	Horse	Heifers	60*
1/10-1/31	Winter	Cows	806
2/12/28	Middle Verde	Cows	806
3/1-3/20	Cornville	Cows, Bulls	886
3/21-4/10	Beaverhead Fl.	Cows, Bulls	886
4/11-4/15	Lower Hog	" "	886
4/16-5/1	Upper Hog	" "	886
5/2-5/7	Blue Grade	" "	886
5/8-5/28	Rarick	" "	886
5/29-6/17	Stoneman	" "	886
6/18-7/8	Blind Lake	" "	886
7/9-8/10	Hutch West	Cows, Bulls, Heif.	946
8/11-9/5	Hutch Middle	" " "	946
9/6-10/6	Hutch East	" " "	946
10/7-10/15	Lane, Cabin	Cows, Heifers	866
10/16-10/17	Shipping	" "	866
10/18-11/7	Stoneman	Cows	806
11/8-12/5	Rarick	Cows	806
12/6-12/26	Upper Hog	Cows	806**

12/27-1/9/99	Lower Hog	Cows	806
5/1-5/31	Middle Gash	Heifers	60
6/1-6/30	West Gash	Heifers	60
7/1-7/8	Hutch West	Heifers	60
10/18-12/31	Middle Verde South	Heifers	60
10/7-11/1	Bull	Bulls	80
11/2-12/1	Rattlesnake	Bulls	80
12/2-12/31	House Mtn.	Bulls	80
5/15-5/20	Holding	Steers	480
5/21-6/30	Willow Valley So.	Steers	480
7/1-8/14	Willow Valley No.	Steers	480
8/15-9/7	Prairie Dog	Steers	480
9/8-10/7	Triangle	Steers	480
10/8-10/15	Holding	Steers	480

*Overgraze period in Horse pasture by heifers by 20 days
**Ranch has option of going down the Blue Grade as per snow conditions.

IMPROVEMENTS (Costs are only estimates and may vary plus or minus. Individual improvements will be necessary to implement management.)

Project	F.S.	Ranch
Horse Pasture Pipelines--2 1/2 miles pipeline, 3 drinkers		$12,000
Cornville Pasture pipelines--2 miles pipeline, 2 drinkers and 1 storage		14,200
Cross Fence East Hutch and Pine Units (9.0 miles)	9,900	
Construct 6 cattleguards	15,000	
	$24,900	$26,200

ADDITIONAL INFORMATION

1. Check to see if additional drinkers, pipelines or fences are needed to be installed during 1998 in addition to the scheduled items. Additional improvements might be needed to meet the graze period criteria and aid in animal performance.

2. Branding period was extended from 5/20 to 5/28.

3. The additional fences in Pine and Hutch do not quite meet the 20 day graze periods during plant growth. Improvements scheduled for 1999 will rectify this.

------- 1999 --------

LIVESTOCK NUMBERS -- 90% of 1045 cattle
80% of 600 Yearling Steers

Cattle (Cows-Bulls)	886	yearlong
Yearling heifers	60	yearlong
	940	Total
Yearling Steers	480	5/15-10/15

SPECIFIC CHANGES IN MANAGEMENT

1. Numbers of cows, bulls and heifers will not exceed 946 head during 1999.

2. Graze periods have been reduced to 20 days or less during fast plant growth in all Use Zones and with all classes of livestock.

3. Stock densities have been increased in the Steer units, Middle Verde, Beaverhead Flat, and Horse pastures.

4. If the projected Grazing Sequence for 1999 is followed and improvement schedule from 1995 thru 1999 is complete, overgrazing in the Winter, Transition and Summer Use Zones will be under control. This is based on the following growth rates by Use Zone:

Winter	Transition	Summer
3/1-4/30	3/15-6/1	4/1-6/1
7/20-9/1	7/20-10/20	7/20-9/30

The following table better illustrates this:

Use Zone	Pasture	Graze Period Days	Stock Density	Plant Growth Slow-fast-dormant		
Winter (3/1-4/30;7/20-9/1)						
	House Mtn.	30	low			30
	Mid. Verde N.	26	low			26
	Mid. Verde S.	59	low			59
	White Hills	20	low	10	10	
	Horse South	20	low		20	
	Horse North	20	low		20	
	Winter North	30	medium			30
	Beav. Fl. N.	30	medium	10		20
	Cornville	20	medium		20	
	Beav. Fl. S.	20	medium		20	
	Winter South	5	medium		5	
Transition (3/15-6/1;7/20-10/20)						
	Rnd. Mtn. West	20	medium		20	
	Rnd. Mtn. East	20	medium		15	5

	Rnd. Mtn. East	20	medium			20
	Rnd. Mtn. West	20	medium			20
	Woodland	20	medium			20
	Woodland	20	medium			20
	Campbell Spr.	20	medium			20
	Campbell Spr.	20	medium			20
Summer (4/1-6/1;7/20-9/30)						
	Lane, Cabin,	9	high			9
	Pine West	24	low	5	20	4
	Pine Middle	20	low		20	
	Pine East	36	low	4	20	6
	Bull	26	medium			26
	Gash Horse	15	medium			15
	Gash East	45	medium		15	30
	Willow Hold.	5	high		5	
	Willow NE	30	medium		10	20
	Willow NW	30	medium			30
	Willow SW	20	medium		20	
	Willow SE	16	medium		15	
	Prairie Dog	20	low		20	
	Triangle	20	medium		13	7
	Willow Hold.	8	high			8

GRAZING SEQUENCE FOR 1999

Graze Dates	Pastures	Livestock	Numbers
1/1-2/1	House Mnt.	Bulls	80
2/2-2/28	Mid. Verde N.	Bulls	80
1/1-2/28	Mid. Verde S.	Heifers	60
3/1-3/20	White Hills	Heifers	60
3/21-4/10	Horse South	Heifers	60
4/11-4/30	Horse North	Heifers	60
1/10-2/9	Winter North	Cows	806
2/10-2/28	Beav. Fl. N.	Cows	806
3/1-3/10	Beav. Fl. N.	Cows, Bulls	886
3/11-3/31	Cornville	" "	886
4/1-4/20	Beav. Fl. S.	" "	886
4/21-4/25	Winter South	" "	886
4/26-5/15	Rd. Mnt. West	" "	886
5/16-6/5	Rd. Mnt. East	" "	886
6/6-6/26	Woodland	" "	886
6/27-6/30	Campbell Spr.	" "	886
7/1-7/16	Campbell Spr.	Cows, Bulls, Heifers	946
7/17-8/15	Pine West	" " "	946
8/16-9/5	Pine Middle	" " "	946
9/6-10/6	Pine East	" " "	946
10/7-10/15	Cabin, Lane	Cows, Heifers	866
10/16-11/5	Campbell Spr.	Cows	806
11/6-11/26	Woodland	"	806
11/27-12/16	Rd. Mnt. East	"	806
12/17-1/6/2000	Rd. Mnt. West	"	806
5/1-5/15	Gash Horse	Heifers	60

5/16-6/30	Gash East	Heifers	60
10/17-12/31	Blue Grade	Heifers	60
10/7-11/1	Bull	Bulls	80
11/2-12/1	Rattlesnake	Bulls	80
5/15-5/20	Holding	Steers	480
5/21-6/20	Willow NE	Steers	480
6/21-7/20	Willow NW	Steers	480
7/21-8/10	Willow SW	Steers	480
8/11-8/26	Willow SE	Steers	480
8/27-9/16	Prairie Dog	Steers	480
9/17-10/7	Triangle	Steers	480
10/8-10/15	Holding	Steers	480

IMPROVEMENTS (Costs are only estimates and may vary plus or minus. Individual improvements will be necessary to implement management).

Project	F.S.	Ranch
Middle Verde division fence (3 miles electric)		$ 3,300
Middle Verde Cattleguard	$ 2,500	
Beaverhead Flat division fence (4 miles electric)	4,400	
Beaverhead Flat cattleguard	2,500	
Horse Pasture division fence (3 miles)		3,300
Hog Pasture fence (1 1/2 miles Barb wire)	3,750	3,750
Blue Grade division fence (1/2 mile barb wire)		2,500
Round Mountain cattleguard	2,500	
Split Willow Valley North (2 1/2 miles)		2,750
Willow North cattleguards (2)	5,000	
Split Willow Valley South	2,750	
Waterlot Prairie Dog Tank		3,000
Totals	$19,000	$18,600

Possible additional improvements which would be split 50-50 between the Ranch and Forest Service are:

Stoneman Lake Pasture Fence (2 miles fence 1 cattleguard)	$ 4,600
Campbell Springs Pasture Fence (2 miles fence 1 cattleguard)	4,600
Additional pipelines and drinkers	8,000
	$17,200

ADDITIONAL INFORMATION

1. Hog pasture is incorporated into management sequence.

2. In the Winter Use Zone the Winter, Beaverhead Flat, Middle Verde, Cornville, Horse, and White Hills pastures are all incorporated into intensive management.

3. All pastures within the Transition Use Zone receive 20 day grazes or less during plant growth periods.

4. All pastures within the Summer Use Zone receive 20 day grazes or less during plant growth periods.

5. Once these graze periods can be adhered to and the aforementioned improvements have been constructed to adjust the graze periods to "actual" plant growth, the final 10% non-use numbers will be reinstated. This is anticipated to happen January 1, 2000.

NON-STRUCTURAL IMPROVEMENTS
If monies are available, the following acres within the designated vegetative types will be burned and, if needed, seeded during the coarse of this 10 year plan:

Vegetative Type	Acres
Dense and Less Dense Woodland	6,850
Desert Scrub	3,550
Desert Grassland	2,800
Desert Shrub	1,000
Juniper Maintenance	13,000
Totals	27,200

These acres will be burned in accordance with the provisions stated in the Apache Maid NEPA document and are further defined as follows:

Phase I (Years 1-3)

Dense Juniper	Less Dense Juniper	Desert Scrub	Desert Shrub Mainten.		Juniper Grassland
400 Hog 1000 Other*	250 Hog 300 Other*	650	350	600	6,000

Phase II (Years 4-6)

400 Hog 1000 Other*	250 Hog 900 Other*	650	350	600	7,000

Phase III (Years 7-10)

400 Hog 1000 Other*	250 Hog 700 Other*	2250	300	1600	
1200 Hog 3000 Other*	750 Hog 1900 Other*	3550	1000	2800	13,000

*Indicates acres in pastures of Rattlesnake, Rarick, Round

Mountain, Woodland, Stoneman, Blue Grade, Hutch, Pine and Prairie Dog.

The burning and seeding costs will be paid for as funds become available by the Forest Service.

MONITORING

1. Elk cattle monitoring will continue throughout the scope of this plan. Particular attention will focus on rested pastures. If elk use is over twenty percent in rested pastures, the Arizona Game and Fish department will be notified and herd corrections will be recommended.

2. Ranch compliance will be monitored yearly.

3. Haying and seeding areas will be monitored through the establishment of photo points, as well as ocular estimates on plant diversity and increased ground cover, establishment of new seedlings and overall plant vigor.

4. In addition to the haying and seeding areas, photo points will be established in other areas of poor watershed conditions. These photo points will be monitored once a year and in addition visual observations recording ground cover plant diversity and available litter will be documented.

5. Visual quality of the burn areas along I-17, roads 179, 213, 119 and 120 will be monitored through on site photo points as well as photo points from the vista and rest area along I-17.

6. Questionnaires will be sent out to interested publics to gauge public reaction to both structural and non-structural improvements. Public contacts will be recorded and considered during and after implementation.

7. Burn areas will also be monitored for improved watershed conditions through the following:
   a. Heat intensity into the soil
   b. Estimation of percent consumption of ground cover by fire through before and after on the ground monitoring.
   c. Increased ground cover through photo point documentation and ocular estimates before the areas are burned, in the fall after the burn and yearly prior to livestock entry and following the summer rains in September.

8. The riparian area of Dry Beaver will be monitored as follows:
   a. Photo point documentation of exclosure and grazed units.
   b. Visual observations will be made yearly prior to and after livestock entry with the following items documented:
      - Condition of streambanks and riparian vegetation.
      - Utilization of terminal buds on woody vegetation

seedlings will not exceed 20%.
- Utilization on all other woody vegetation will not exceed 20%.
- Increases and/or decreases of woody vegetation. Are the three age classes established or being established?
- Specie diversity in both woody and fibrous rooted plants.
- Increase or decrease in vegetative ground cover.

9. Biological planning will be carried out annually by the ranch and Forest Service during the month of January. This planning chart will be adjusted throughout the year for actual plant growing conditions. Items recorded will be:

a. Estimated graze periods by pasture
b. Actual graze periods by pasture
c. Actual livestock numbers by pasture
d. Type of livestock graze received by the end of the graze period recorded as light (up to 25%), moderate (25-50%) or heavy (50+%).
e. Growth rates in pastures during time of actual livestock graze recorded as slow, fast or dormant.
f. Precipitation recorded within the Use Zone livestock are in, recorded in 5 day increments.
g. Within the Transition and Summer Use Zones, utilization of the pastures cattle are to enter will be monitored within 5 days prior to entry. This will document elk use prior to livestock entry.

Item a will be completed by the ranch and Forest Service in January of each year. Items b thru f will be conducted by ranch personnel with help from district range personnel. Item g will be completed by Forest Service personnel.