ENVIRONMENTAL ASSESSMENT
REPORT REVIEW

NAME OF PROJECT Middle Fork Mill Creek Range Allotment Plan

TYPE OF PROJECT Allotment Mangement Plan

RANGER DISTRICT Colville

REPORT PREPARED BY Cindy Jo Talbott DATE 2/8/80
Range Conservationist

Jim Linton DATE 3/13/80

RANGER DISTRICT REVIEW

Curt Heidlebaugh DATE 2/13/80

M Stark DATE 2/14/80

John C. Allis DATE 2/13/80

Harvey Swanson Dist Engin DATE 2/19/80

Lynn E Andrews DATE 2-20-80

FOREST SUPERVISOR'S OFFICE REVIEW

Gary Swanson DATE 3/3/80
Range, Wildlife, Watershed and Soils Staff Officer

DATE
Engineering, Lands and Minerals Staff Officer

Arthur Kelley DATE 3/6/80
Planning and Programming Staff Officer

DATE
Timber Staff Officer

DATE
Fire and Recreation Staff Officer

NOTE TO REVIEWERS: Your signature indicates that you recommend approval by the Responsible Official. If you believe the report or project should have revisions or additions, so indicate by attaching your comments, writing in your signature block the words "See Comments", and fill in the date.

ADDENDUM TO MIDDLE FORK MILL CREEK E.A.R.

The permittee agreed to the reduction in term numbers to 24 head providing he can run a bull along with the 24 cow/calf pairs and the grazing season is not shortened. This 25 head represents a 40% reduction in numbers. This is an acceptable compromise of the plan as outlined in the Environmental Assessment Report and Allotment Management Plan since the cattle will be taken from the allotment when proper utilization of the key species is reached.

Thus, the Middle Fork Mill Creek Allotment will be stocked with 25 head for a 4½ month grazing season, from June 1 - October 15. These dates are dependent upon range readiness and forage availability.

Lynn E. Andrews
District Ranger

3-14-80
Date

for Martha M. Bowman
Forest Supervisor

3/17/80
Date

DECISION NOTICE
AND
FINDING OF NO SIGNIFICANT IMPACT

MIDDLE FORK MILL CREEK ALLOTMENT RANGE MANAGEMENT PLAN
ENVIRONMENTAL ASSESSMENT
STEVENS COUNTY, WASHINGTON

USDA - FOREST SERVICE
COLVILLE NATIONAL FOREST

An Environmental Assessment that discusses the implementation of an intensive grazing management system on the Middle Fork Mill Creek Allotment is available for public review in the Forest Supervisor's Office in Colville, Washington.

Based on the analysis and evaluation described in the environmental assessment, it is my decision to adopt a deferred rotation grazing system for the Middle Fork Mill Creek Range Allotment.

Deferred rotation grazing, with the specified monitoring, provides the best combination of physical, biological, social and economic benefits and is considered to be the environmentally preferred alternative.

I have determined through the environmental analysis that this is not a major Federal action that would significantly affect the quality of the human environment; therefore, an environmental impact statement is not needed. This determination was made considering the following factors: a) changing to an intensive grazing management system of deferred rotation will have a minor, but generally positive, effect on the ecosystem; b) there are no irreversible or irretrievable loss of range or timber resources; c) there are no apparent adverse cumulative or secondary effects; d) the physical and biological effects are limimted to the Middle Fork Mill Creek Allotment; and (e) no known threatened or endangered plants or animals are within the affected area.

This decision is subject to Administrative Review (appeal) pursuant to 36 CFR 211.19.

Implementation of this grazing system may begin immediately.

Robert B. Terrill — 3/7/80

ROBERT B. TERRILL
Forest Supervisor
Colville National Forest
695 S. Main
Colville, Washington 99114

DATE

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I. INTRODUCTION

The Colville National Forest is preparing to obtain Management Stragety D* on the Middle Fork Mill Creek Allotment on the Colville Ranger District. Range resource management strategy D seeks to maximize production and utilization of forage allocated for livestock use consistent with maintaining the environment and providng for multiple use. The decision to be made in this report is what type of grazing system and developments will best achieve this intensive management of the resource and livestock.

This document is a combination Environmental Assessment Report and Allotment Management Plan. The Allotment Management Plan provides direction for accomplishing and monitoring management objectives and centralizes information necessary for the grazing management of the allotment. This plan will remain felxible and will be updated as needed.

A. Major Issues, Concerns and Opportunities

1. Maintain or improve range condition.
2. Minimize adverse impacts of grazing on riparian and aquatic habitats.
3. Coordinate the use of forage by livestock and wildlife, looking for ways to increase production in critical areas.

*See Appendix 1 for a description of Management Strategy D.

4. Maintain the stability of the family ranch affected, coordinating the use of land under Federal and private ownership.

B. Location

The Middle Fork Mill Creek Allotment lies in Townships 36 and 37 North, Ranges 40 and 41 East, Willamette Meridian, within Stevens County, Washington. A map of the Middle Fork Mill Creek Allotment is in Appendix 2.

Various private and state lands, as well as National Forest lands are included within the allotment boundary. Acreages are shown in Appendix 3.

II. AFFECTED ENVIRONMENT

A. Vegetation

The area is timbered primarily with stands of coniferous species which are described by Daubenmire as habitat types. The major habitat types are Douglas-fir/ninebark, grand fir/pachistima, red cedar/pachistima and western hemlock/pachistima. (Refer to Daubenmire, R. and J. Daubenmire, 1968, Forest Vegetation of Eastern Washington and Northern Idaho, Washington Agricultural Experiment Station, Technical Bulletin #60.)

The major range types are moist Kentucky bluegrass and redtop meadows and tufted hairgrass–Nebraska sedge meadows. The bluegrass–redtop meadows are mostly old clearings from settlement of the area. Principle forage species include Kentucky bluegrass, redtop, timothy, orchardgrass, bluebunch wheatgrass, Idaho fescue and pinegrass. Shrubs that furnish browse for wildlife and livestock include redstem ceanothus, willow, snowberry, rose and service-berry.

No ~~known~~ threatened or endangered plants have been found on the allotment area.

B. Soils

A soils map and listing of soil types is included in Appendix 4. Soils which are sensitive to livestock grazing due to compaction hazard, displacement hazard or slow site recovery (low water storage capacity) are identified.

C. Water

The stream classes of creeks in the allotment are the following:

Middle Fork Mill Creek: IFQR, III FQV, IIIQ

Jacobsen Creek: IIIQ

See the TRI Aquatic Subsystem for locations and details of the aquatic classifications.

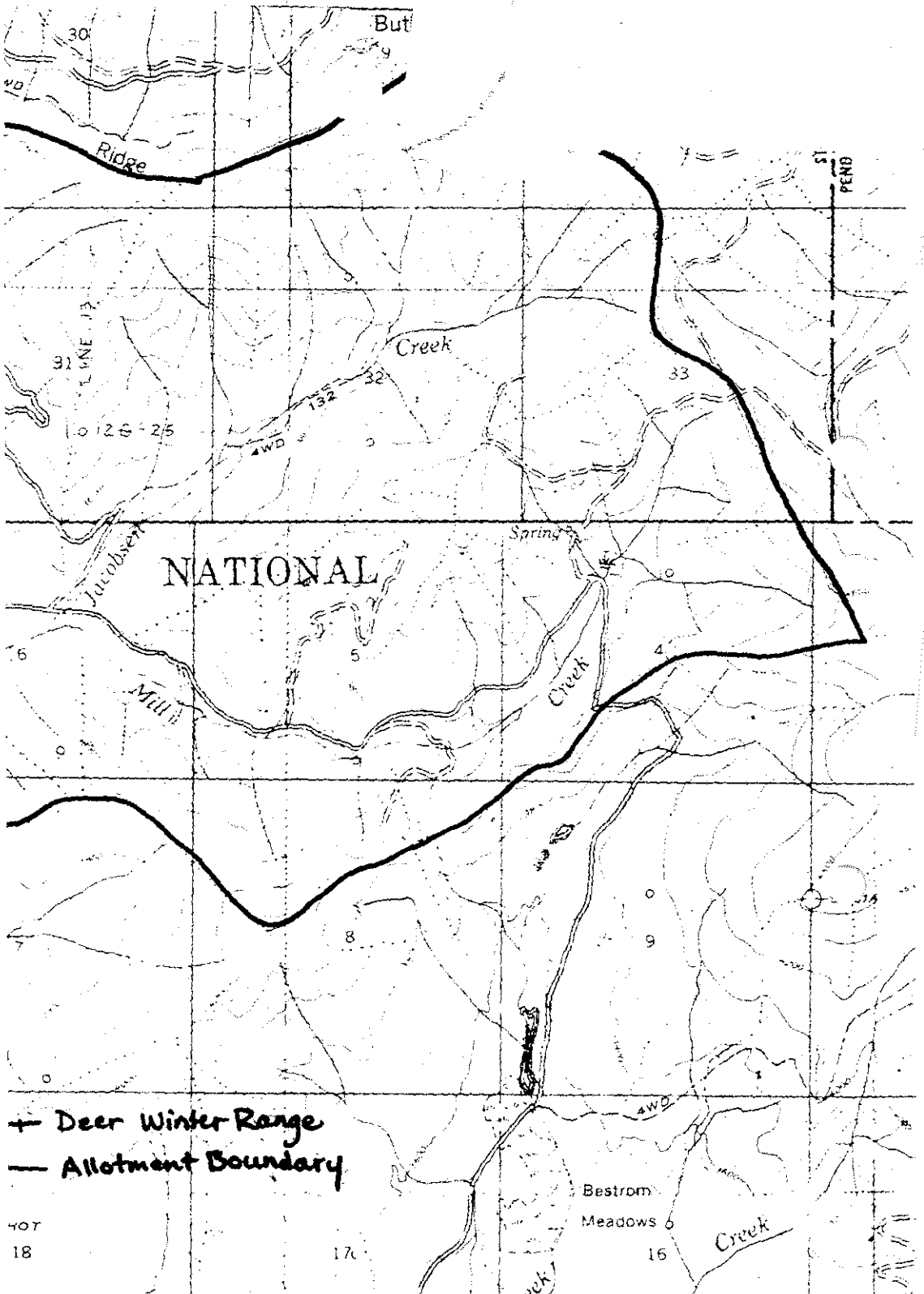
The Middle Fork Mill Creek was monitored as a baseline water quality sampling station from 1976 through 1978. The measured parameters turbidity, temperature, pH, dissolved oxygen and total coliform were all well within the state standards.

No wetlands or floodplains, as defined by Exec. Order 11990, have been identified on the allotment.

D. Wildlife

Wildlife species that may occur within the allotment are specified in separate pamphlets entitled "Reptiles, Amphibians, Birds and Mammals of the Colville National Forest", T. Burke, June 1976.

Deer winter range is present in the southwest end of the allotment. The following map shows its location. Most of the winter range is too steep for cattle use, with the exception of the movement corridors along the road.


Ridge
Creek
NATIONAL
Spring
Jacobsen
Mill
Creek
Bestrom
Meadows
Creek
4WD
Deer Winter Range
Allotment Boundary

Apple trees in old orchards are utilized by bear and deer. The creeks are class II fisheries. Possible impact areas are those where creeks flow through meadows. No disturbance was noted. The streams are generally real bushy and there is no problem of cover.

No threatened or endangered animal species are known to inhabit the allotment area.

E. Cultural Resources

Cultural resource inventory will be accomplished on existing range allotments during the course of long range compliance with Executive Order 11593. The majority of effort in the first stages of this inventory will be concentrated toward activities more likely to produce impact to cultural resources.

While it is known that trampling by animals can impact fragile surface configurations of archaeological sites, none of the areas of the Middle Fork Mill Creek Allotment are pristine and grazing has been permitted for 36 years. Any further impact to cultural resources is likely to be of very little consequence. Sound range management planning should have the salutory effect of reducing exposure of cultural resources to adverse impact.

F. Uses

1. Timber Management

Two timber sales within the allotment boundary will close in 1982. The Irish Mountain Sale is near the allotment boundary on the northwest side,the Bon Ayre Ridge Sale on the boundary at the northeast corner. Both are too steep for livestock grazing. The Irish Flat Sale will be a small salvage sale creating little ground disturbance. An increase in transitory range is not expected from these cutting activities due to topography, type of cutting and distance from existing forage.

2 Range Management

Range Use - Past and Present

A more complete history of range use is filed in the Middle Fork Mill Creek Allotment folder under 2200 Management. Grazing has been permitted on the Middle Fork Mill Creek Allotment since 1943. The area was homesteaded and grazed prior to that time, however. From 1943 to 1965, about 60 head were grazed for a 4½ month season, 6/1-10/15. Then, in 1965, the permitted number was changed to 42 head. There were variations in this pattern which may be seen in the Record of Grazing Use, Appendix 5.

The allotment has been divided into 2 pastures, upper and lower, since 1949, but grazing was, for practical purposes, seasonlong most of the time. In 1976, an Interim Management Plan set up a deferred rotation system. During early springs, cows are moved on the upper pasture first and kept there until proper use is achieved. The gate is then opened and the cattle moved into the lower pasture. The rotation is reversed on years with late springs. An attempt is made to balance the early use over the long term.

In 1963, the allotment was described as "varying from flat to very steep slopes. It is made up of old homestead meadows and some open timber sidehills. It is very difficult to manage this area as the cattle stay in the meadows as long as there is a bite to eat and will not go up on the sidehill range."

Since that time, the "sidehill range" has grown over with coniferous stands so that the range resource consists of the meadows along the creek and a portion of a cutting unit in Section 10 on the road to Irish Mountain.

See Appendix 6 for a list of the existing range developments.

The 42 head presently permitted apparently represents an overstocking of the range. Grazing capacity has decreased over the years primarily due to encroachment of trees onto areas which were previously producing forage.

Range Condition and Capacity

Range condition and trend on the allotment were measured during the range environmental analysis field work done in the summer of 1979. Data collected indicates that 8% of the suitable range is in excellent condition, 61% in good condition and 31% in fair condition. Most (88%) is exhibiting a static trend while 12% is in a downward trend. Areas are shown on the range map in Appendix 7 by condition and range type in Apprendix 8.

Estimated Grazing Capacity

Pasture	Season Long	Deferred/Deferred Rotation
Lower	35 AUMs	43
Upper	42 AUMs	51
	77 AUMs	94 AUMs

The grazing capacity calculations are shown in Appendix 8. Because production varies from year to year due to fluctuations in precipitation, subsequent production/utilization studies will be maintained to verify this capacity estimate.

III. EVALUATION CRITIERA

The following evaluation criteria were developed to select a grazing system:

A. MUSTS

1. Provide a system of practical livestock mangement which will ensure sustained use of the forage. (FSM 2222.02)

2. Prevent basic and other resource damage. (FSM 2203.1 Supplement #34)

B. WANTS

1. Improve range condition. (FSM 2203.1)
2. Watershed values will be maintained or improved. (FSM 2205.13)
3. Coordinate the use of forage for wildlife and domestic livestock. (FSM 2606.11)
4. Maintain the stability of the family ranch affected. (FSM 2203.1)

IV. ALTERNATIVES CONSIDERED

The following alternatives were developed to respond to major issues, concerns, and opportunitites:

A. Deferred

A deferred system of grazing on the Middle Fork Mill Creek will accommodate 24 head for a 4 month season, 6/1-9/30. Under this system, the cattle will graze the lower pasture to proper use, then will be moved into the upper pasture.

GRAZING SCHEDULE

Pasture	Date
Lower	6/1-7/25
Upper	7/26-9/30

B. Deferred Rotation

A system of deferred rotation alternates the timing of use between the two pastures. The stocking rate is the same as for the deferred alternative.

GRAZING SCHEDULE

	Lower	Upper
Year 1	6/1-7/25	7/26-9/30
Year 2	8/4-9/30	6/1-8/3
Year 3	----------REPEAT CYCLE----------	

For the deferred and deferred rotation systems, the only additional improvement anticipated is a cattleguard and short drift fence across the Middle Fork Mill Creek road to stop Luiten's cows from going over to the South Fork Mill Creek Allotment.

C. No Change

The present grazing system is described in Section II.F.2, Range Use. It differs from the proposed deferred rotation system primarily in the stocking rate and the lack of control of cattle movement at the lower end of the allotment.

V. EFFECTS OF IMPLEMENTATION

There are no conflicts between any of the alternatives and the objectives of Federal, Regional, State and local land use plans, policies and controls for the area concerned.

There are no impacts on urban quality, historic and cultural resources and the design of the built environment by any of the alternatives.

There are no effects upon prime farmland. Effects upon forest and rangeland will be discussed under each alternative.

There are no effects upon minority groups, women and civil rights.

A. Deferred

Range condition - soil and vegetation

Deferment of the upper pasture every year will improve range condition in those meadows. Early season use every year in the lower pasture, under proper use, is expected to maintain the present condition. Any improvement in those meadows will be slow.

Reduction in the stocking level will benefit the range by allowing the proper use standards to be enforced.

Water

Condition of riparian zones and water quality will be maintained but improvement in the lower pasture will be slow. Some improvement may occur in the upper pasture due to undisturbed plant devlopment until late July.

Wildlife

There is no apparent conflict between big game and livestock grazing. Winter range areas are not generally suitable for livestock grazing. The meadows and old orchards are to be maintained as clearings.

Socio-economic

The list of proposed improvements is shown in Appendix 9. The only addition is a cattleguard and short drift fence to prevent the cattle from going onto the South Fork Mill Creek Allotment. The expenses and returns are the same for both the deferred and deferred rotation systems.

Reduction of the term numbers was requested by the permittee, Jim Luiten.

B. Deferred Rotation

Range conditon - soil and vegetation

A system of deferred rotation will provide conditions conducive to range improvement at a faster rate than under deferred grazing. On alternate years, the forage species are allowed to develop until approximately midseason without grazing.

Water

Condition of riparian zones and water quality will be maintained at the present level. There may be a slight improvement in the long term.

Wildlife

The impacts are the same as for the deferred system.

Socio-economic

The impacts are the same as for the deferred system.

C. No Change

Range condition - soil and vegetation

The present deferred rotation system would be satisfactory if the stocking rate were lowered and a cattleguard installed to hold the cows on the allotment. The current permitted numbers are too high and proper use standards are exceeded if the cattle remain for the grazing season. This is having a detrimental effect on range condition.

Water

Condition of the water quality and riparian habitat is not expected to change under the current system.

Wildlife

The impacts are the same as for the deferred system.

Socio-economic

There would be no expense of additional improvements. The permittee has requested to decrease his numbers. If he applies for nonuse for a part of his permit, the range condition does not warrant filling in with another permittee.

VII. Evaluation of Alternatives

Decision Analysis Worksheet—Comparison of Alternatives

Decision Statement

Objectives		Alternatives								
		A Deferred			B Deferred Rotation			C No Change		
Must		Info	Go/No		Info	Go/No		Info	Go/No	
Provide a system of grazing that will ensure sustained use of forage			Go			Go			Go	
Prevent basic and other resource damage			Go			Go			Go	
Want	Wt.	Info	Sc.	Wt. Sc.	Info	Sc.	Wt. Sc.	Info	Sc.	Wt. Sc.
Improve range condition	10		6	60		10	100		4	40
Maintain & improve watershed values	9		8	72		9	81		7	63
Coordinate wildlife & livestock forage	7		8	56		8	56		8	56
Maintain stability of [illegible]	8		10	80		10	80		6	48
			Total	265			317			207

Translate Alternatives and

VII. IDENTIFICATION OF THE FOREST SERVICE PREFERRED ALTERNATIVE

The deferred rotation grazing system, Alternative B, was selected as the preferred alternative by comparing all the alternatives to the set of evaluation criteria. Deferred rotation, as selected, provides the best combination of physical, biological, social and economic benefits.

VIII. IX. CONSULTATION WITH OTHERS

The permittee, Jim Luiten, was kept informed through personal contact throughout the Environmental Analysis and Management Plan development process. His participation has been encouraged during the preparation of alternatives and the selection of the preferred one. His continued support will be necessary to make the implementation process successful.

IX. MANAGEMENT PLAN

A. Season of Use and Stocking

The Middle Fork Mill Creek Allotment will be stocked with 24 head for a four month grazing season from June 1 - September 30. Refer to the following chart for the grazing schedule.

GRAZING SCHEDULE

	Lower Pasture	Upper Pasture
Year 1	6/1-7/25	7/26-9/30
Year 2	8/4-9/30	6/1-8/3
Year 3	--------REPEAT CYCLE----------	

B. Herd Management

The dates shown above are approximate depending on range readiness and utilization of the forage. When proper use of the key species is reached in the first pasture, the cattle will be moved into the second pasture. The cattle will be removed from the allotment by September 30 or when proper utilization of the forage has been reached.

The permittee has the responsibility to see that cattle are moved at the proper times to prevent vegetative and/or soil resource damage.

Permanent salt grounds will not be established. Salt is to be placed away from areas of concentrated use and moved to "fresh feed" areas as proper use is achieved near salt locations. To enhance movement, salt should be distributed prior to moving livestock in and picked up before moving them out. Salt must not be placed within 1000 feet of any water source, meadow, or immediately adjacent to roads unless for a specific management purpose and approved by Forest Service personnel. Salt should not be placed directly on the ground. Portable salt boxes or stakes should be used.

C. Range Improvements

The list of existing and proposed structural improvements may be found in Appendices 6 and 9. The only additional improvement is a cattleguard and drift fence across the Middle Fork Mill Creek road scheduled for installation in 1981.

The removal of encroaching trees, fertilization, and noxious weed control will be needed for maintenance and improvement of range condition on the homestead meadows.

D. Coordination with Associated Resources

Livestock grazing will be coordinated with timber sale activity. Cattle may have to be somewhat restricted in sale areas in erosion control seeding and reforestation areas.

Timber harvesting may alter dense stands of timber which act as natural barriers to livestock movement on allotment and pasture boundaries. Provisions for fences will be made if natural barriers are destroyed.

Future timber sales may increase the amount of transitory range. If this occurs, changes in forage production and accessibility will be estimated to recalculate the grazing capacity.

E. Monitoring

Inspection of maintenance on structural improvements will be made prior to turnout of livestock onto the range.

Range readiness inspections will be made to determine yearly turnout dates and establish long-term average range readiness dates based upon plant development. Readiness checks will be made in the homestead meadows. Range readiness criteria are as follows:

Vegetative Readiness

Species	Minimum Stage of Development
Kentucky bluegrass	In the boot stage
Bluebunch wheatgrass	Leaves 6-8 inches in height
Pinegrass	Leaves 5 inches in height
Elk sedge	Seed head in late dough stage

Soil Readiness

Normally dry sites should be fairly dry and firm. Wet meadows should have most of the area dry enough to carry stock without breaking the sod and destroying cover.

Production and utilization plots will be established in selected key areas in both pasture units. These plots will be measured annually, ~~nar~~ near the end of the use period, to verify allotment capacity. Proper utilization will be 60% on Kentucky bluegrass and redtop.

Allotment Inspection Schedule

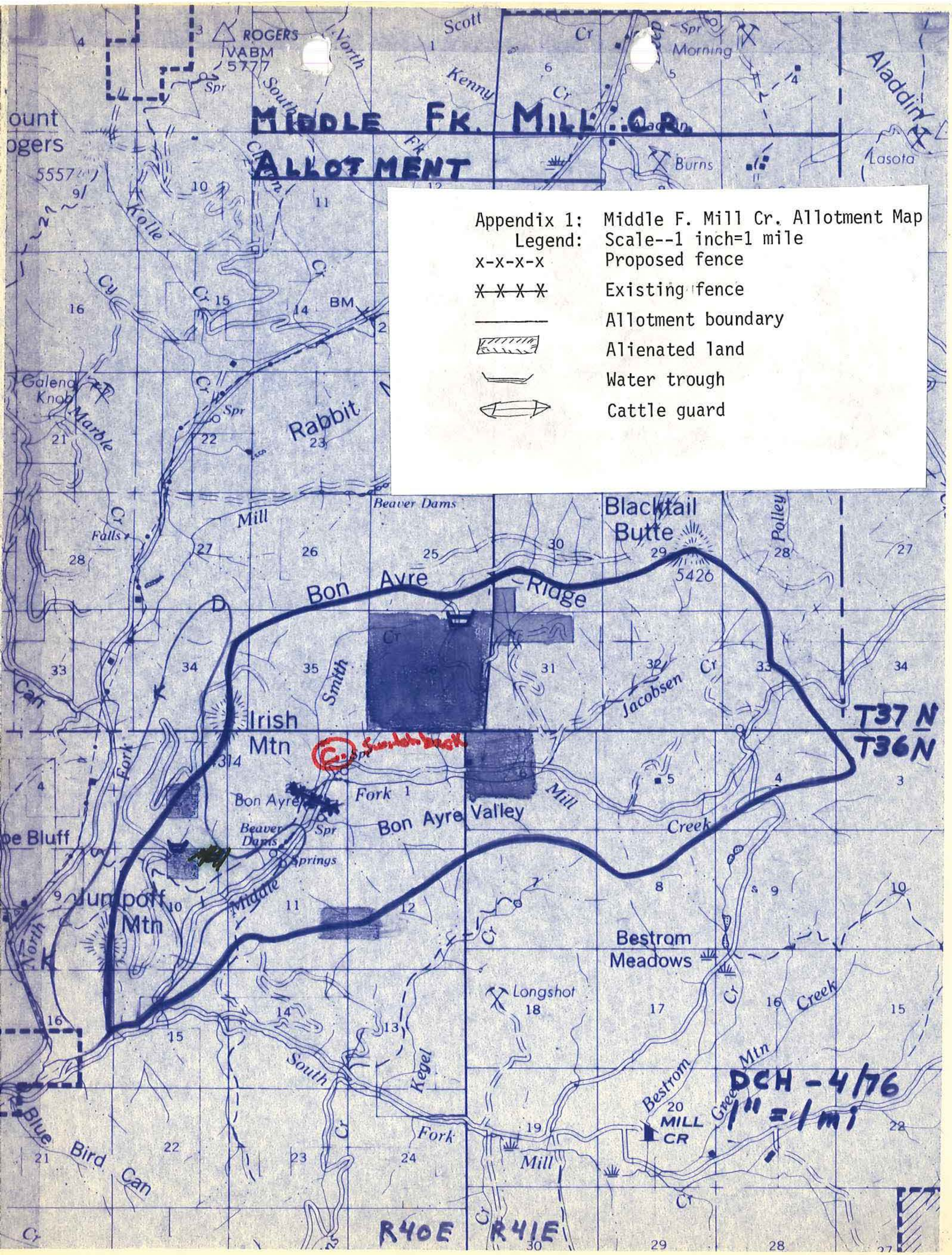
Readiness and Maintenance check	late May
Production/Utilization check for move between pastures	mid Summer (refer to grazing schedule)
End of season inspection	late Sept.-early Oct.

Effectiveness of the management system and problem areas can be noted during these inspections. The permittee will be invited to accompany the Forest Officer on these inspections and share in the gathering of necessary data.

An annual plan of use will be prepared each spring by the Forest Service and permittee to determine how the range will be used for that year, following the schedule outlined in this management plan.

Appendix 1 Description of Management Strategy D

A full description of the various management strategies developed by the Forest-Range Task Force is available in "The Nation's Range Resources - A Forest-Range Environmental Study" (F.R.E.S.). Management Strategy D: "Intensive managemnt of environment and livestock - All available technology for range and livestock management is considered. Management seeks to maximize livestock forage production consistent with constraints of maintaining the environment and providing for multiple use. Existing vegetation may be replaced through improvement in growing conditions. Structures may be installed to accommodate complex livestock management systems and practices. Advanced livestock management practices are commonplace."


MIDDLE FK. MILL CR.
ALLOTMENT
Appendix 1: Middle F. Mill Cr. Allotment Map
Legend: Scale--1 inch=1 mile
x-x-x-x Proposed fence
Existing fence
Allotment boundary
Alienated land
Water trough
Cattle guard
ROGERS
VABM
5777
Scott
Kenny
Morning
Aladdin
Burns
Lasota
Rogers
5557
Kolle
BM
Galena Knob
Marble
Rabbit
Beaver Dams
Mill
Falls
Blacktail
Butte
5426
Polley
Bon Ayre Ridge
Smith
Jacobsen
Irish
Mtn
Switchback
Bon Ayre
Fork
Bon Ayre Valley
Mill
Creek
Beaver Dams
Springs
Middle
Jumpoff
Mtn
Bluff
North
Bestrom
Meadows
Longshot
Creek
South
Kegel
Bestrom
MILL
CR
Mtn
Green
Blue
Bird
Can
Fork
Mill
T37N
T36N
DCH - 4/76
1" = 1 mi
R40E
R41E