



**Grazing
Management**

Grazing Management

Resource Objectives and Recommendations

The resource objective for improve (“I”) allotments will be to improve poor and fair range condition to good range condition through implementation of improved grazing management and vegetative manipulation practices. Because of topography, soil limitations and wildlife habitat concerns, it is not feasible to strive for 100% improvement on all poor and fair condition range. As a general guide, allotment management plans (AMPs) developed under this plan will be designed to achieve 80% good condition on key livestock use areas (key areas being defined as drainage bottoms and flatter areas that normally receive at least moderate use and have the capability to respond to grazing treatments or vegetative manipulation practices).

The objective for the maintain (“M”) allotments is to maintain the current satisfactory condition.

The objective for most “C” allotments will be to continue custodial management. However, the Gravelly, Petroglyph, Gyp Springs, and Bluewash allotments will be monitored at a level to ensure resource conditions are not deteriorating. These four allotments have substantial amounts of public land as compared to the majority of “C” allotments, but are in an area with low production capability.

The livestock production objective will be to maintain current proper use allocations in the short term, while increasing potentially available livestock forage in the “I” allotments and selected “M” allotments. Where current allocations exceed proper use, the objective will be to determine the proper use level through monitoring and allocate livestock forage accordingly.

Achieving the resource objectives of the Billings Resource Management Plan is dependent upon receiving sufficient funding to complete range improvements and adequate staffing to implement grazing systems, supervise grazing use and monitor resource changes. A list of the “I, M and C” category allotments, proposed projects and ranking is displayed in Table 2.1. Ranking of allotment priority is based on resource condition and analysis of project proposals. Ranking is subject to change based on changes in resource conditions, project redesign, or private contributions by individual operators.

Proposed Allocation

In this program 62,437 animal unit month (AUM) authorizations to 333 operators will continue in the short term. Any reductions in livestock use will generally be phased in over a 5 year period, according to BLM grazing regulations where substantiated by monitoring and consultation.

The analysis in the Billings Final RMP/EIS Preferred Alternative projected a 10,711 AUM increase available to livestock. This was under the assumption that all proposed range improvements, land treatments, and grazing systems would be completed and implemented. This AUM figure takes into consideration the requirements of consumptive and nonconsumptive users and an appropriate allocation was reserved for these resources. Appendix 2.0 displays the current allocation by allotment. Any adjustment, either upward or downward, will be substantiated through monitoring and allocated in accordance with BLM policy.

Grazing Treatments and Systems

Sixteen new AMPs will be developed on “I” category allotments and seven existing AMPs in the “I” category will be revised. Allotment-specific objectives will be developed to resolve resource conflicts and improve resource conditions on these “I” allotments. Grazing systems incorporating rest and/or deferment treatments will be designed to achieve these objectives. Current grazing systems in 16 “M” category existing AMPs will be continued. Table 2.2 summarizes “M, C and I” category allotments according to current and proposed management status.

TABLE 2.1
PROPOSED RANGE IMPROVEMENTS AND INVESTMENT ANALYSIS

Name	Number	Category	Proposed Improvements	Range Condition	Season of Use	Carring Capacity	Distribution	Water-shed	B/C	Rank
Kee	4948	I	Well - 1 Pipeline - 2.5 mile	X	X	X	X		.7	1
Wallin	4954	I	Well - 1 Fence - 1 mile Sagebrush burn - 126 ac.	X			X		1.1	2
Iverson	4945	I	Well - 1 Sagebrush burn - 79 ac.				X		1.6	3
Kee	4940	I	Spring - 1	X	X	X	X		.9	4
Stanley	4988	I	Well - 1				X		5.4	5
Cub Creek	5202	I	Reservoir - 2 Sagebrush burn - 837 ac.	X				X	1.0	6
Steamboat Butte	5320	I	Wells - 2 Fence - 1 mile				X		3.4	7
Raths	4947	I	Sagebrush burn - 85 ac.					X	12.9	8
Heifer Pasture	5367	I	Well - 1 Fence - 1 mile Sagebrush burn - 90 ac.	X	X		X		1.1	9
Ondracek	4946	I	Well - 1 Sagebrush burn - 204 ac.				X		.8	10
Adolph ll	4969	I	Sagebrush burn - 180 ac.		X	X				8.9
Devil's Basin Unit	4971	I	Well - 1 Sagebrush burn - 534 ac.	X				X	10.3	12
Bischoff	5203	I	Sagebrush burn - 152 ac.				X		4.0	13
Williams Basin	5210	I	Sagebrush burn - 598 ac.	X				X	3.1	14
Hollenbeck	5235	I	Well - 1 Sagebrush burn - 250 ac.				X		7.3	15
Southwest End	5311	I	Sagebrush burn - 306 ac.	X					11.4	16
South K Henry	5321	I	Sagebrush burn - 342 ac.	X					10.6	17
Hibbard Creek	5356	I	Sagebrush burn - 564 ac.	X					3.2	18
James Pasture	5371	I	Sagebrush burn - 156 ac.	X					12.6	19
Upper Sage Creek	4125	I				X				20

TABLE 2.1 (continued)

Name	Number	Category	Proposed Improvements	Range Condition	Season of Use	Carring Capacity	Distri- bution	Water- shed	B/C	Rank
Dryhead	4101	I				X				21
Marie Allen	4137	I				X				22
Paradise	4111	M	Spring - 1 Sagebrush burn - 210 ac.				X		1.2	1
Wacker	4928	M	Fence - 1 mi.				X		2.1	2
Milton	4968	M	Crested wheat - 160 ac. (electric)	Fence - 5 mi.			X		9.6	3
Milton	4903	M	Fence - 10 mi. (electric)				X		8.9	4
North Otis	5318	M	Fence - 2.5 mi.						.1	5
Cottonwood	5213	M	Reservoirs - 2 Sagebrush burn - 209 ac.	X					.6	6
North K Henry	5336	M	Well - 1				X		3.9	7
Limestone	4132	M	Fence - 1 mi.				X			8
Parrott	4953	M	Reservoir - 1				X		1.1	9
South Pompey	5304	M	Well - 1				X		1.3	10
Home Pasture	5368	M	Well - 1 or Spring - 1				X		.9	11
Vescovi	4951	M	Well - 1				X		4.2	12
Clarksfork	1083	M	Sagebrush burn - 36 ac.	X					5.1	13
Crow	4114	M	Sagebrush burn - 53 ac.	X					5.3	14
Cherry Creek	4119	M	Sagebrush burn - 88 ac.	X					3.9	15
Black Butte	4131	M	Sagebrush burn - 270 ac.						8.2	16
Wade	5214	M	Sagebrush burn - 44 ac.						7.3	17
Jack Creek	5217	M	Sagebrush burn - 333 ac.						7.8	18
Grove Creek	5225	M	Sagebrush burn - 292 ac.						6.9	19
Gyp Springs	4105	C	Catchments - 2 Sagebrush burn - 142 ac.	X			X		3.8	1
Bluewash	4115	C	Sagebrush burn - 238 ac.	X			X		3.4	1

The benefit/cost (B/C) ratio was calculated using an average cost per type of project. This economic analysis will be run again prior to annual work plan submission. This analysis will use project specific data collected through engineering survey and design.

TABLE 2.2
CURRENT AND PROPOSED MANAGEMENT STATUS

Category	Management Status	No. of Allotments	Acres	AUMs
M	Existing AMPs	16	63,479	7,711
	New AMPs	1	4,333	1,284
	Non-AMPs	95	127,531	25,124
I	Revised AMPs	7	38,165	4,547
	New AMPs	15	43,456	8,726
C	Existing AMPs	2	42,553	2,872
	Non-AMPs	257	79,781	12,173

In addition to typical grazing systems such as: rest rotation, deferred rotation, and deferred grazing, a new grazing technique called the Savory Grazing Method is being examined as a pilot program in the resource area. This method employs a time-controlled grazing concept based primarily on the growth rates of plants. There is considerable interest in this revolutionary new concept and there is currently one ranch in this area with a BLM grazing preference that is implementing this method. BLM is particularly involved with this ranch in cooperation with the Soil Conservation Service, Montana State Lands, Montana Department of Fish, Wildlife & Parks, and Montana State University. This is a pilot project and has been designated a Coordinated Resource Management Plan (CRMP).

Proposed Range Improvements

Vegetative manipulation is often the most cost effective and fastest way to change current undesirable conditions. Where noxious weeds are a problem, manipulation through chemical treatments may be the only viable option. Burning is the only method proposed for the treatment of sagebrush on 6,418 acres, primarily due to its cost effectiveness versus other methods. This figure represents acreage with 40% or more canopy coverage. Actual figures will vary through development of the allotment specific burn plans where soil and wildlife constraints will be applied. Renovation of old crested wheatgrass stands is proposed on 160 acres. Methods of renovation will depend on the objectives to be achieved in the allotment, equipment available and the preference of the operator based on his experience.

Consistent with Bureau policy, first priority for rangeland improvements will be given to Improvement (I) category allotments. Range improvements in the Maintain (M) category and Custodial (C) category allotments will be of lower priority, except where operator contributions are made that contribute to better management or improved range conditions. Additionally, funds may be expended to protect other resources where adversely affected by livestock grazing.

The Bureau's Rangeland Investment Analysis procedures were used to rank allotments. Factors considered in this ranking analysis include: selective management category, economics, resource values/conflicts and local coordination requirements. The benefit/cost (B/C) ratio is a numeric indicator of economic efficiency. The B/C ratio presents a proportion of benefits to costs for an investment. Ratios greater than 1.0 indicate that benefits from reinvestment outweigh costs of investment and vice versa for ratios less than 1.0.

Projects in wilderness study areas will be governed by the Interim Management Policy and Guidelines For Lands Under Wilderness Review until Congress has determined whether they will or will not be designated wilderness.

Structural improvements will include: 5 reservoirs, 14 wells, 3 spring developments, 2.5 miles of stockwater pipelines, 2 water catchments, and 22.5 miles of fence. Water catchments, although costly, will also benefit some wildlife species.

In this program, 31 key "I", "M" and "C" category allotments have been identified which have the potential for improved range condition, increased forage production and reduced levels of erosion through the use of prescribed burns within dense stands of sagebrush (40% plus canopy coverage). A total of 21,520 acres of dense sagebrush stands have been carefully evaluated since publication of the

Final RMP/EIS, by a multidisciplinary team of specialists which applied soil, water, and wildlife screens to evaluate potential resource conflicts. Through this process, a total of 15,102 acres have been dropped from further consideration due to potential residual adverse impacts to other resource values. The remaining 6,418 acres reflect the revised short term (8 years) target for control. It is anticipated that this target figure could fluctuate in the future as more inventory data is collected and evaluated on other allotments. Additionally, 160 acres of crested wheatgrass will be hayed or mechanically treated to improve range condition and increase livestock forage.

A coordinated noxious weed program between BLM, local weed boards and landowners will be pursued. The amount of acreage controlled will depend on the cooperation of other landowners and weed control agencies. An accurate inventory of infested acres is needed. Since so many factors are involved that limit a meaningful estimate of acreage sprayed, it is assumed that only the current control program (45 acres) in the Paradise Allotment will be accomplished in the short term.

The total cost of the improvements in this plan in the short term (implementation period) will be \$215,240 (see Appendix 2.1 for summary of current costs for each type of improvement).

Rationale

Current policy directs the BLM to focus available funding and manpower on those areas where problems and conflicts exist. The inventory conducted in preparation for this RMP was designed to assess the current condition and identify problem areas. From the information available, each allotment was placed in one of three categories: "I" Improve, "M" Maintain, or "C" Custodial. Attention will be focused on the "I" allotments with second priority on those "M" allotments where less critical problems exist and finally the "C" allotments where conflicts arise.

This action which is the same as the High Level Management Alternative described in the Billings Final RMP/EIS for the range program, was selected to achieve the resource area's range management goals in a reasonable period of time with acceptable environmental impacts.

The rate and amount of investment in terms of manpower and dollars under the Existing Management Alternative will not achieve a desirable rate of improvement in the "I" category allotments, nor will it address allotment problems in a reasonable time period.

The Low Level Management Alternative will not result in any positive BLM actions to address range management or range condition problems. In addition, proposed livestock reductions will not result in an acceptable rate of improvement in problem areas such as normal concentration areas in draw bottoms and around existing water sources. Range conditions will deteriorate in the long term. This alternative will increase the number of allotments in the "I" category over the long term with very little being done to improve these specific allotments.

Monitoring

Allotments that were targeted for adjustment in current authorized use will be monitored to better gauge proper grazing capacity. Available range survey information will be used as an initial basis for evaluation. Reductions or increases will be based on more detailed data, consultation, and/or monitoring of actual use and utilization. Other adjustments needed in grazing management such as changes in the season of use, class of livestock, and areas of livestock use will be developed through consultation of affected parties and monitoring during the next few years.

A detailed monitoring and evaluation plan will be completed by September 30, 1984. This will be an allotment specific plan specifying the type, frequency, and schedule for monitoring and evaluation. Intensity of monitoring is directed through the selective management approach and will generally be focused on the "I" allotments. This plan will be available at the Billings Resource Area Office.

Implementation Priorities

1. Continue to implement the annual base program for range management in the Billings Resource Area (issuance of permits and bills, transfers, day to day routine business, etc).
2. Achieve the resource objectives for grazing management as stated previously under Resource Objectives and Recommendations in this document. This is dependent upon receiving sufficient funding to complete range improvements and adequate staffing to implement grazing systems, supervise grazing use and monitor resource changes.

3. First priority for rangeland improvements will be given to "I" category allotments with "M and C" category allotments being of a lower priority. Further priority has been given on an allotment specific basis (refer to Table 2.1). Ranking is subject to change based upon changes in resource conditions, project redesign, or private contributions by individual operators.

Support

Monitoring will be conducted by resource area range personnel on a yearly basis, dependent upon current fiscal year budget allocations. Project development will require input from all resource programs to assess impacts through the EAR process. Additionally, purchasing support, contracting, survey and design and project inspection support will be required. Wilderness support will be required where projects may impair wilderness qualities.

Any action or project having an effect on T&E species habitat will be brought to the attention of the FWS, who will be consulted to render an opinion in accordance with Section 7 of the Endangered Species Act.

Vegetation manipulation or sagebrush burning will require input from the Montana Department of Fish, Wildlife and Parks.

Comparison of this Grazing Management Program to the Billings Final RMP/EIS

There is a difference between the proposed range improvement program shown in Tables 2.1 and 2.2, and those included as part of the Proposed Action in the final Billings RMP/EIS. However, these changes did not result in any environmental consequences which were not already part of the final RMP. Due to the shortened timeframe for completion of the RMP, it was impossible to achieve the level of consultation with the operators needed to develop a firm allotment development plan. Consequently, many of the project proposals were determined on estimates based on personal knowledge of an allotment by BLM personnel. Changes are therefore the result of consultation with the operators, updated inventory data, project elimination or modification based on an updated Rangeland Investment Analysis, and implementation of the selective management policy.

Subsequent inventories on the Limestone and Railroad allotments indicated that the actual percent of good and excellent condition range was considerably higher than what was displayed in the RMP/EIS.

Appendix 2.0 of this document reflects the changes made as a result of additional consultation and analysis. The final figures in these tables may be modified when an allotment development plan is adopted.

The table below compares the range improvement changes.

	Big Sage Brush Control	Mechanical Treatment Native Range	Crested Wheat	Noxious Weeds			
Final RMP/EIS	21,520 A	1,700 A	5,118 A	45 A			
ROD	6,418 A	0	160 A	45 A			
	Fence	Spring	Catchments	Pipeline	Well	Reservoirs	
Final RMP/EIS	46 mi.	2	47	31 mi.	10	16	
ROD	22.5 mi.	3	2	2.5 mi.	14	5	