

**APPENDIX 2
GREEN MOUNTAIN COMMON ALLOTMENT
AMP GOALS AND OBJECTIVES**

I. BLM Goals and Objectives

The current grazing regulations (43 CFR 4100) state that the Bureau's objective is to promote healthy, sustainable rangeland ecosystems; accelerate restoration and improvement of federal rangelands to proper functioning condition; promote the orderly use, improvement and development of the federal lands; establish efficient and effective administration of grazing of federal rangelands; and provide for the sustainability of the western livestock industry and communities that are dependent upon productive, healthy federal rangelands.

The Bureau of Land Management's Riparian Wetlands Initiative for the 90's set the goal that by 1997, 75 percent of the federal riparian wetland areas will be in proper functioning condition. The proper functioning condition definition is, in essence, that riparian vegetation will be present along streams sufficient to dissipate stream energy during high flows, provide bank stability, improve water quality, aid floodplain development, develop diverse channel characteristics, and support greater biodiversity. Riparian areas when in proper functioning condition will provide for the greatest number of beneficial uses which may include use by wildlife as habitat, forage for livestock, and where possible high quality fisheries. (See Map17)

II. Lander 1987 RMP and Rangeland Program Summary Goals and Objectives

The Mission Statement, Goals, and Objectives discussed below were used in conjunction with management objectives listed in the Lander RMP to develop the various alternatives presented in this environmental assessment.

The GMCA was categorized in the Lander RMP as a moderate priority Improve category allotment. The following factors were used in the categorization of this allotment:

1. Vegetative production is not satisfactory.
2. Forage competition between grazing animals.
3. Distribution of grazing animals not satisfactory.
4. Turnout dates not consistent with range readiness.
5. Conflicts with other land uses.
6. Potential for positive economic return on public investments.

The following management objectives were developed in the Green Mountain Management Framework Plan and were later incorporated into the 1987 Lander RMP.

A. Management Objectives

1. Improve distribution of grazing animals to more evenly utilize available forage in the allotment.
2. Manage the wild horses in the allotment at the appropriate management levels (AMLs) for the Green Mountain, Antelope Hills and Crook Mountain herd unit as follows:

Herd Area	Lower Limit	Median Population	Upper Limit
Green Mountain	170	245	345
Antelope Hills	35	45	65
Crooks Mountain	65	73	83
Total	270	363	493

3. Maintain or improve the riparian communities in the allotment.
4. Coordinate all management objectives with wildlife habitat quality and population management objectives.

5. Monitor trend in the allotment to assess the effects of planned actions once they have been implemented.
6. Improve forage production to satisfactory levels.
7. Adjust turnout dates and seasons of use to be consistent with range readiness and sound range management principles.

B. Conformance with the Land Use Plan

The proposed action (Alternative Two) and alternatives considered in this environmental assessment are in conformance with the Lander Resource Management Plan (RMP) and Record of Decision. The grazing management decisions for the Green Mountain Study Area, which includes the Green Mountain Common Allotment, were derived in 1983 from the Green Mountain Grazing Environmental Impact Statement and were reconsidered in the Lander RMP in 1987. The summaries of rangeland decisions for the Lander Resource Area RMP are discussed on pages 22 and 23 and Appendix A-Green Mountain Rangeland Program Summary, includes objectives to improve existing resource conditions and reduce or eliminate conflicts. The Lander RMP states, "Management decisions affecting grazing use will be made when monitoring data are sufficient to support those decisions and may include changing livestock numbers, periods of use, or a combination of both." The alternatives are also in conformance with the Standards for Healthy Rangelands and Guidelines for Grazing Management for Wyoming (S&Gs).

III. Green Mountain Working Group - 1997 Mission Statement, Goals and Objectives

A. Mission Statement

In response to the resource conflicts identified in the Lander Resource Management Plan (RMP) and to the requested livestock conversion, the working group developed the following Mission Statement and Goals:

Manage the public lands in the Green Mountain Common Allotment in a manner that will promote stewardship of the land while allowing for sustained multiple use.

B. Goals

1. Improve or maintain riparian areas.
2. Maintain wild horses within appropriate management levels.
3. Improve the distribution of water sources.
4. Improve the distribution of grazing animals.
5. Maintain the open spaces and natural character of the allotment and the uses that are dependent on these values.
6. Maintain public access and dispersed recreational opportunities while respecting private property in the allotment.
7. Maintain big game populations near objective levels established by the Wyoming Game and Fish Department.
8. Maintain or improve habitat quality for plant and animal populations and communities.
9. Provide adequate forage and water on a sustained-yield basis to satisfy the present management levels of livestock, wild horses and big game animals.
10. Provide workable solutions that encourage positive economic impacts on the multiple uses.

11. Maintain and improve soil productivity and minimize soil erosion.
12. Improve or maintain upland plant communities so that they are diverse and able to recover from disturbance.
13. The public lands will be managed in a manner that will protect and improve the quality of the water resources on the public lands.
14. Share expenditures on rangeland improvements by all concerned interests wherever possible.
15. Maintain open, honest, and constructive communication within the Green Mountain Common Allotment committee and with the public. Foster understanding, involvement, and cooperation in resource management.

C. Allotment Resource Objectives

1. Riparian Areas:

- a. Establish or maintain diverse willow stands within the Green Mountain Common Allotment (GMCA) where these stands have historically and are currently able to occur by the year 2020. Key areas, components (number, age-class, and height of willows), and percent of improvement of components will be established following collection of data on existing willow communities.
- b. Maintain or improve native sedge communities within the GMCA by the year 2020. Key areas, percent improvement by key area, the component (presence or absence of species or litter), and the current sedge community will be established or described following collection of data on existing sedge communities.
- c. Restore or maintain shallow ground water tables in association with riparian areas by the year 2020. Key areas, percent improvement (or increase in elevation) of seasonal water levels, and current seasonal ground water levels will be established following collection of data on current ground water levels.
- d. Maintain and preserve quantity and quality of permanent spring sources in the Green Mountain Common Allotment by the year 2020. Identification of sources and methods for protection and management will be an ongoing activity throughout the life of the plan.

2. Strategies or Management Actions:

- a. Develop and identify site specific management objectives through an interdisciplinary resource management planning process for the GMCA.
- b. Discuss with affected interests and interested publics the development of management objectives and proposed riparian projects to help meet these objectives.
- c. Develop a new grazing management prescription in conjunction with riparian improvement projects and water development projects.
- d. Provide alternative water sources for the use of livestock, wild horses, and wildlife that will enable rest or reduced use of riparian habitats by those species. Alternative water sources may include spring developments, wells, pipe-lines, reservoirs, pits, and guzzlers.
- e. Develop riparian (breeding or holding) pastures to provide needed rest or deferment from season long grazing on high value riparian habitats.
- f. Utilize herding and/or fencing to provide rest or deferment from livestock grazing during

critical periods of plant growth.

- g. Protect important spring sources through the installation of protective fencing.
- h. Install gradient control structures along important riparian areas to reduce or stop migration of head cuts along riparian areas. Head cuts result in the lowering of water tables.
- i. Review current livestock turnout dates and adjust if resource damage in riparian areas is occurring.
- j. Alternate livestock turnout dates and location.
- k. Maintain wild horse populations within approved AMLs.
- l. Develop additional water sources and wetlands to benefit other resources such as fisheries, waterfowl, game and nongame birds.
- m. Utilize plantings of woody species (willow) where the potential for establishment of these species naturally occur.

3. Habitat Quality

- a. Restore, improve, and maintain habitat conditions to support both plant and animal populations that occur in terrestrial, riparian, and aquatic habitats within the GMCA. These habitats will be capable of sustaining viable populations and a diversity of native and naturalized plant and animal species, including threatened and endangered species, species of special concern, and sensitive species for the long-term.

4. Strategies or Management Actions:

- a. Conduct habitat evaluations to determine current habitat quality and identify areas where Improvement is needed.
 - i) Identify habitats that need to be improved.
 - ii) Determine specific management needed.
 - iii) Identify improvements where needed.
 - iv) Plan and implement specific improvements.
- b. Develop management practices and actions that maintain or enhance habitat quality.
- c. Increase the quality of available habitat that will eliminate or reduce the major limiting factors of plant and animal populations and provide for species diversity.
- d. Avoid or minimize adverse impacts on habitats by reviewing proposed projects, plans, and activities. Where needed, develop proper mitigative measures to sustain or improve those habitats.

5. Provide Forage and Water for Livestock, Wild Horses and Big Game Animals

The BLM Lander Resource Management Plan (RMP) states that forage will be provided to meet the wildlife population objectives by herd units as outlined in the Wyoming Game and Fish Strategic Plan. Provide enough forage on a sustained-yield basis to satisfy at least the present demands of livestock, wild horses, and wildlife. Determining approximate wildlife numbers on a certain confined area is difficult at best and these figures will continually be adjusted through the public review process as better information and current habitat needs are identified.

- a. The Green Mountain Common Allotment will be managed in such a manner that forage will

be provided to support approximately 2,960 deer months, 2,270 elk months, 130 moose months, 2,050 antelope months, 35,910 cattle AUM's, 11,451 sheep AUM's, and 3,550 wild horse AUM's on an annual basis.

6. Improve Or Maintain Upland Plant Communities

Evaluate current data and establish studies where data are insufficient to establish parameters for the following objectives.

- a. Maintain or increase the frequency of key species, at key areas, selected by interdisciplinary team (IDT). Evaluation of this objective will be determined by the grazing program selected and grazing cycle developed by December, 2014.
- b. Maintain or increase the density of key species, at key areas, selected by IDT. Evaluation of this objective will be determined by the grazing program selected and grazing cycle developed by December, 2014.
- c. Maintain or improve trend in all upland plants including key browse communities, based on live canopy cover and density measurements. The objective is to maintain or expand live canopy cover and reduce number of decadent plants on key areas by December, 2020.
- d. Determine percent cover at key areas by December, 2015. Plant canopy cover supports watershed integrity. The root systems and above ground portions of plants enhance the hydraulic resistance of moving water and directly influences watershed stability, water infiltration into the soil is increased and surface runoff is decreased.
- e. Based on determinations in objective four (above), percent cover will be maintained (when measured) or improved (when re-measured) by December, 2020.

D. Desired Plant Community

The Desired Plant Community (DPC) is the plant species assemblage which currently exists, or which, through natural succession and/or management actions, is reasonably sustainable on an ecological site, and which best supports land use goals. The DPC must be a plant community, consistent with the site potential and it becomes the focus of management. DPC goals and objectives will be considered achieved as long as the communities being monitored are approaching or are within reasonable range of these defined targets.

E. Riparian Vegetation Desired Plant Community Objectives

The Desired Plant Communities (DPC) should have desirable, deep-rooted herbaceous and (in some cases) woody vegetation (including, but not limited to sedge, rush, willow, currant, chokecherry, birch, cottonwood, aspen, dogwood, and native riparian grasses and forbs) with a short-term intent of achieving proper functioning condition on streams. The site specific objectives on the riparian monitoring transects established in the late 1990's can be found in the Green Mountain Common Allotment Evaluation written in December, 2002.

1. Riparian Areas without Willows

This desired plant community should be achieved by December, 2030. In the allotment evaluations scheduled for 2014, if monitoring shows a particular riparian key area has willows, they will be evaluated under the criteria for "Riparian Areas with Willows".

- a. As identified by site-specific resource objectives; increase or maintain the proportion of desired, deep-rooted riparian species within plant communities along the greenline, which are capable of holding soils, retaining sediment, and buffering the erosive forces of the stream.

- b. No more than ten percent (10%) of the perennial streambanks, as measured on the greenline should be devoid of vegetation (eroding or aggrading).
- c. Riparian cross-section data will be used to determine site-specific objectives for community types at each monitoring site.

2. Riparian Areas with Willows

The desired plant community should be achieved by December, 2030.

- a. Twenty-five percent (25%) or more of riparian plant communities as measured on the greenline should be composed of willows or other desirable woody species. The remainder of the riparian plant communities along the greenline should be composed of desirable, deep-rooted riparian species capable of holding soils, retaining sediment, and buffering the erosive forces of the stream.
- b. No more than ten percent (10%) of the perennial stream banks, as measured on the greenline, should be devoid of vegetation (eroding or aggrading).
- c. Riparian cross-section data will be used to determine site-specific objectives for community types at each monitoring site. This will include a percent canopy-cover figure for willow (as needed).
- d. Age-classes of willow, as measured by stem-count along a belt-transect parallel to the greenline, should consist of: Sixty percent (60%) young and sprouts (less than four-feet high, single-stem to simple branching and not seed producing); thirty to forty percent (30% - 40%) mature (greater than four-feet high, complex branching, more than ten (10) stems, seed-producing); and zero- to ten-percent (0% - 10%) decadent or clubbed or severely-hedged.

F. Upland Vegetation Desired Plant Community Objectives

Goals for upland vegetation are set at the landscape, rather than at a site-specific level, due to a desire to maintain a healthy mix of plant communities and successional stages across the entire allotment. An inventory of successional stages on upland sites has not been completed, but the professional opinion of the IDT is that a high percentage of these upland shrub communities are in a late successional stage. The following upland landscape objectives were developed to improve the health of these upland plant communities.

1. Landscape Objectives for Specific Upland Plant Community Objectives

The following objectives are not intended to enhance or allow implementation of this AMP but are meant to reflect the vegetative conditions which should provide a stable community to enhance the historic range of variability for rangeland health reasons, improved habitat for wildlife, and provide an ecologically sound pattern (similar to naturally expected conditions) on the landscape through time. They are not a measure of the success of the grazing plan per se, but rather will reflect the success of natural fire and/or vegetation manipulation through a variety of methods over time. The attainment goal for 2050 is based on the expectation that the implementation of vegetation manipulation needs to be completed over a long time frame to achieve the diversity of age classes and canopy covers without adversely affecting a large proportion of the allotment at any one time.

- a. Wyoming or Mountain Big Sagebrush-Grassland: The long-term landscape goal is to attain a mosaic of different successional age classes by the year 2050, 30% of sagebrush-grassland communities in $\leq 10\%$ sagebrush canopy cover; 40% of the sagebrush-grassland communities in 10-20% sagebrush canopy cover; 30% of the sagebrush-grassland communities in $\geq 20\%$ sagebrush canopy cover.

- b. Mixed Mountain Shrub: Mountain shrub communities (on Green and Crooks Mountains) include single-species dominated, or a mix of the following species: antelope bitterbrush, serviceberry, snowberry, chokecherry and currant. By 2050 (on a landscape scale), mountain shrub stands should be comprised of a mosaic of different age classes consisting of 30% of the communities in predominantly young shrubs, 50% in a mix of young-to-mature shrubs, and 20% dominated by mature to decadent.

2. Allotment Resource Specific Objectives

The attainment/non-attainment of these objectives will be analyzed after the 2016 and 2021 grazing seasons.

- a. Attain an average streambank vegetative shade canopy of 30%.
- b. Bank trample will be allowed on less than 15% of the streambanks.
- c. The vegetative use level objectives are:
- i). The stubble height objective for the standing stubble on the green line on the public land riparian areas in all pastures will be an average of six inches of standing stubble for Nebraska sedge, *Carex nebraskensis*, Narrowleaf sedge, *Carex eleocharis*, the identified key species. This use will be measured after all livestock have left the allotment in the fall. Six inches has been identified as the minimum stubble height needed to provide streambank recovery and protection for the following spring runoff.
- ii). The use objective for willows in all pastures for willows is 35 percent of current year's growth based on the average percent of leaders browsed on approximately 10-20 plants on the public land riparian transects as measured after all livestock have left the allotment in the fall. Browsing intensity on willows will be monitored throughout the year and evaluated annually. The nearest young plant (less than five-foot high, single stem or simple branching, non-seed producing) will be used as the sampled plant. The willow transects are approximately parallel to the stream.
- iii). The BLM Riparian Initiative of 75 percent of all streams to exist in Proper Functioning Condition. The Riparian Initiative goal is to restore and maintain riparian-wetland areas in the GMCA (see PFC Table) so 75 percent of more of the areas are in proper functioning condition by 2030.

GMCA PFC TABLE					
RATING (by public land miles only)					
PFC = Proper Functioning Condition; NF = Non-Functional					
	FUNCTIONAL AT RISK				
	PFC	UPWARD TREND	NO APPARENT TREND	DOWNWARD TREND	NON FUNCTIONAL
CURRENT LOTIC MILES	11.34	1.6	12.98	38.13	23.65
PERCENTAGE	12.9%	1.8%	14.8%	43.5%	27.0%
CURRENT LOTIC ACRES	42.58	11.82	66.98	249.74	36.13
PERCENTAGE	8.1%	2.9%	16.4%	66.6%	6.0%
CURRENT LENTIC ACRES	352.38	42.54	79.56	892.26	193.03
PERCENTAGE	22.5%	2.7%	5.1%	57.3%	12.4%
PFC OBJECTIVE MILES	65.8	21.9	0	0	0
PERCENTAGE	75%	25%	0%	0%	0%
PFC OBJECTIVE ACRES	1330.5	443.5	0	0	0
PERCENTAGE	75%	25%	0%	0%	0%