Bureau of Land Management
POLICY FOR ADMINISTERING PUBLIC LAND GRAZING
IN
MONTANA, NORTH AND SOUTH DAKOTA
DURING PERIODS OF DROUGHT

Introduction

Livestock grazing is but one of the activities that BLM manages on the public lands. Drought stresses all resources: vegetation, wildlife, soils, watershed, and timber as well as livestock. Unfortunately, only livestock and human activity can be readily controlled or restricted from access to public lands. The other resources are either immobile or not readily controlled. This policy deals with livestock use and implements provisions of existing laws and regulations. Other uses that may require special consideration during severe drought may be addressed in separate policy statements or actions.

Vegetation cover is one part of productive rangelands because it strongly affects soil moisture. When drought reduces the total forage produced and the normal residual vegetation (standing and down plant material) is used by livestock, insects, and other grazing animals; soil moisture and temperature are affected. Soil temperatures are lowered by the residual cover during warm periods and are raised by the residual cover during cold periods. Moisture intake and penetration into soils is keyed to the amount and type of residual cover found on a soil/ecological site. In fact, with little or no residual cover on rangelands, moisture events will likely produce little effective penetration into the soil. Residual cover provides protection for soils, vegetation, wildlife, watersheds, and for the many other resources dependent upon good vegetation and livestock management.

Authority

This document implements provisions of:

- Taylor Grazing Act of June 28, 1934, as amended;
- Federal Land Policy and Management Act of 1976, as amended;
- Public Rangelands Improvement Act of 1978;
- Regulations in 43 code of Federal Regulations, Group 4100(43 CFR 4100).

Policy

It is the policy and objective of the BLM to: manage the public lands and authorize livestock grazing under the principles of multiple use and sustained yield; provide for the orderly administration of grazing by domestic livestock on the public lands; and provide for the conservation and protection of soil and vegetation resources.

Accomplishment of these objectives becomes more difficult during periods of range depletion caused by drought. Normal grazing schedules and livestock management practices may have to be modified. Additional coordination, consultation, and data exchange between livestock operators and Bureau personnel will be required, over and above that level normally practiced. Appropriate state agencies and other interested parties will have to be involved at appropriate times and kept informed at all time.

The principal thrust of the policy and procedures in this document, and other regulatory and procedural requirements not repeated here, will be for the livestock operator and BLM to jointly develop strategies for livestock use on public land during and following drought. Strategies selected should be those that best protect rangeland resources while minimizing impacts on the operator to the extent possible. To that end, every degree of flexibility provided by

the laws and implementing regulations will be available to authorized officers of the Bureau.

Voluntary adjustments in livestock use of public lands should be sought at the earliest date it becomes apparent that "normal" grazing schedules cannot be followed; or, if followed, would result in degradation of long-term resource productivity. The earlier an agreement can be reached or a decision is made that "normal" grazing schedules cannot be followed; the more opportunities livestock operators will have to consider alternatives to minimize impacts on his or her operation. Waiting until the last minute before scheduled turnout to make a determination or decision will reduce the options available to both the operator and the Bureau.

In keeping with established Bureau policies and priorities, efforts to manage public rangeland under drought conditions will be directed first to allotments with resource concerns such as "I" category allotments. Specific allotments in the "M" and "C" categories can also be considered high priority when resource values or conditions so require. Regardless of the category assigned to an allotment, operators should be aware of the procedures and flexibilities available for dealing with drought condition.

BLM fully expects that the vast majority of livestock operators will recognize the need for and voluntarily make adjustments in livestock use of public lands if the extended drought continues. These adjustments will be recognized during the permitting process and grazing bills will be adjusted accordingly. In those situations where agreement cannot be reached, authorized officers of the Bureau have the final responsibility and accountability for ensuring that public lands are not permanently damaged by improper use.

If issuance of a decision concerning livestock use becomes necessary, the procedure specified in 43 CFR 4160 will be followed. Briefly, this procedure calls for a proposed decision, setting forth the proposed action.

Proposed decisions are issued by the Field Office Manager. The permittee then has 15 days in which to protest the proposed decision and set forth reasons why he or she believes the proposed decision is in error. The authorized officer then reviews the proposed decision in light of the protestant's statement of reasons and any other information that may bear on the case. At the conclusion of the review, a final decision is prepared and served on appropriate parties. Any person whose interest is adversely affected by a final decision may appeal the decision for the purpose of a hearing before an Administrative Law Judge.

It should be further understood that final decisions can be modified or rescinded, if the conditions that existed when the decision was issued no longer exist. If significant amounts of precipitation occur during the growing season, producing significant changes in the amount of moisture available to plants, this may cause decisions to be reconsidered. The consultation and coordination process will be used to obtain livestock operator involvement in such cases.

If a proposed decision is not protested, during the 15-day period, it becomes the final decision of the authorized officer without further action.

In cases such as the need for temporary changes caused by conditions such as drought, final decisions may become effective upon issuance (43 CFR 4160.3(f) 4110.3-2(a)).

Procedures

The following guidelines and procedures are intended to provide the data, flexibility and direction for public land managers and livestock operators to develop strategies and make decisions during drought conditions. Consultation

and coordination with livestock operators and other interested parties will be carried out during all procedural steps.

I. Winter Assessment (Mid-November - January)

A. Analysis

1. Review past season's monitoring results. Analyze plant growth, actual use, occurrence of insect infestations, and especially the use of "rest" pastures.

2. Analyze precipitation records and distribution patterns from the National Weather Service, local cooperators, BLM, and other agencies. Tabulate moisture departures from normal levels and timing of precipitation in relation to past years' growing season.

3. In "I" allotments where there is concern because there is less residual cover, effective precipitation well below normal, rest pastures already used, etc., measure soil moisture in representative areas. Where available, use RAWS/OMNI sites, existing soil moisture stations, etc. Additional soil moisture samples are to be taken at the rooting depth of major forage species in representative areas using techniques found in agency manuals/handbooks and professional literature and experienced personnel.

B. Action

1. Where it is apparent resource degradation might occur if drought continues, begin to notify operators through letters and news releases that the coming year's livestock grazing might be affected.

2. Set up range user meetings in affected communities to discuss available information and possible actions to prevent range resource damage.

3. Encourage operators to make needed changes in their grazing schedules, including applying for non-use. If non-use is taken then activated, BLM will waive the $10 service fee in accordance with 43 CFR 4130.8.3. Authorized officers may issue refund or credit of grazing fees under 43 CFR 4130.8-2(b).

4. Meet with individual operators when available information indicates a particular allotment is affected by severe drought condition. Attempt to reach agreement on alternative grazing strategies if conditions do not change.

II. Late Winter and Spring Assessment (February - April)

A. Analysis

1. Review precipitation and soil moisture data for winter and early spring.

2. Review the effects of winter grazing use; snow pack influence for stock water, soil temperatures, etc-

3. Continue soil moisture measurements where problems are apparent or in areas of concern. Measurements at rooting depth to measure available water for plants will be especially important during this period.

4. Assess availability of livestock water, in consultation with permittees.

B. Action

1. If drought conditions are continuing, or becoming more severe, follow up winter letters and news releases with more releases and letters that update the situation. Conduct meetings with Grazing and District Advisory Boards. Meetings are encouraged with other concerned individuals and agencies as a part of the grazing management strategy.

2. Contact remaining operators who have not voluntarily made needed changes. Where you believe you have enough information to indicate an allotment is in severe drought condition, meet with the operator to review and explain the information you have and attempt to reach agreement on a grazing strategy. If an agreement cannot be reached and, especially if the allotment has a relatively early turnout date, issue a proposed decision. The extent of use adjustment contained in this decision (delayed turnout, reduction in numbers or duration, total exclusion, etc.) will depend on your assessment of all the factors involved. These include past grazing use, range condition, residual cover, precipitation, soil moisture and the land use objectives for the allotment.

3. If soil moisture is below the middle line on Figure 1, delay turnout until key forage plants have grown to approximately one-half their normal height (for most of our native grass species about 6 inches).

III. Continuing Assessment (throughout grazing season)

A. Analysis

1. Continue to closely monitor precipitation in "I" allotments and areas of concern. Attention is directed to determining effective (soil moisture) growing season precipitation.

2. Closely monitor utilization of key plant species and key areas. Remember to consider management objectives when selecting key species and areas.

3. Continue to measure soil moisture in "I" allotments and areas of concern.

4. Monitor factors other than livestock grazing, such as insect infestations, congregations of wildlife, availability of livestock water, etc.

B. Action

1. If soil moisture drops below the middle line on Figure 1 and utilization has reached objective levels or a maximum of 30 percent utilization has occurred, livestock are to be removed.

2. If soil moisture remains unacceptable (below the bottom line in Figure 1) during most of the spring and early summer with little or no growth in primary forage species for livestock (i.e., range readiness has not been reached), advise affected permittees that fall and winter ranges may not be available for use during the current year. Also advise that production in subsequent years may be affected if plant basal areas and density have been severely reduced.

3. For those permittees in "I", allotments with AMPs having available standing forage in rest pastures or fall or winter use pastures, advise the permittees that livestock must be removed from public lands; when consumption of standing forage has reached objective levels or a maximum of 50 percent.

4. Adjust monitoring plans to collect data concerning plant death, loss of basal area, density, and yield for analysis and use in later years.

IV. Other Considerations

1. The use of salt, mineral, and certain mineral supplements as necessary to overcome natural shortages of minerals in rangeland forage may be authorized as necessary to provide for proper range management(4130.3-2(c)).

2. Maintenance feeding on public lands is not authorized except under very unusual short-term conditions and by permit only. Maintenance feeding during drought conditions is specifically excluded.

3. Applications for a maintenance feeding permit due to poor forage conditions associated with drought should be denied and livestock removed or not allowed.

Definitions:

Available water. That portion of water in a soil that plants can extract from the soil. Generally measured per unit volume of soil.

Basal area (range). The area of ground surface covered by the stem or stems of a range plant, usually measured 1 inch above the soil in contrast to the full spread of the foliage.

Density. (1) The number of individual plants per unit area; (2)Refers to the relative closeness of plants to one another.

Flexibility. The ability to alter the grazing management plan to meet changing conditions.

Flushing. Feeding female animals a concentrated feed shortly before and during the breeding period for the purpose of stimulating ovulation.

Growing season. In temperate climates, that portion of the year when temperature and moisture are usually most favorable for plant growth.

Key species. (1) Forage species whose use serves as our indicator to the use of associated species; (2) Those species which must, because of their importance, be considered in the management program.

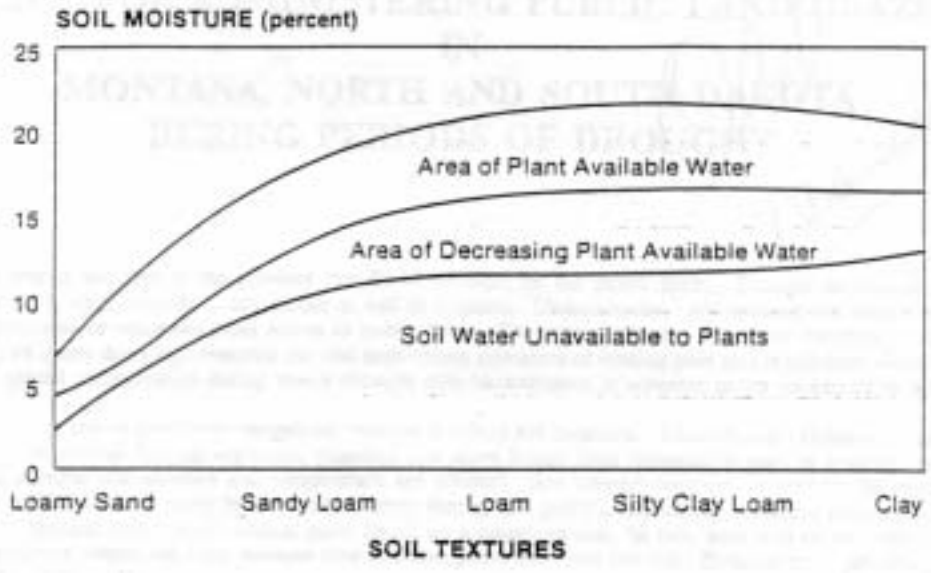
Maintenance feeding. Supplying feed to range animals when available forage is too limited to meet their minimum daily requirement (examples are cubes, pellets, baled or loose hay).

Phenology. The study of periodic biological phenomenon such as flowering, seeding, etc., especially as related to climate.

Range readiness. The defined stage of plant growth at which grazing may begin under a specific management plan without permanent damage to vegetation or soil.

Supplemental feed. A feed which supplements the forage available from the public lands and is provided to improve livestock nutrition and good animal husbandry and rangeland management practices. An example is salt or mineral block. Creep feeders to supplement feed for calves and supplemental feeding to "flush" cattle and sheep for breeding may be authorized on public lands when compatible with the resource management objectives.

FIGURE 1
Plant Available Water Capacities



When using Figure 1, the following information should be kept in mind.

a. Soil moisture is measured the depth of plant roots or to a root limiting layer. It will vary by plant(s) and soil type.

b. Soluble salts, gravel and heavy clay will decrease plant available water capacity.

c. Organic matter, good soil structure will increase plant available water capacity (The capacity increases about 1 percent for each 1 percent of organic matter).

d. Soils with water restricting layers like naturally compact subsoil, shallow bedrock or stratification can increase plant available water capacity of the overlying soil layers.

e. Soils that are deep, medium textured and uniform can have decreased plant available water but allow for deeper rooting.

Figure 1 was developed from research done in the 1980s in northern and eastern Montana. Published research was reviewed by soil scientists, range scientists and plant physiologists. These data are currently found in USDA, NRCS soil survey manuals, engineering manuals, irrigation guides, ARS and University research. It is tested and well accepted information.

The lines on the graph represent the relationship of various soil texture and soil water available to plants common to the Northern Gt. Plains and nearby Rocky Mountains.

For site specific application the lines should be adjusted to reflect the needs of key forage species on a given soil in area of interest. For example, a western wheat plant is capable of extracting more soil moisture from a silty clay soil than is a bluegrass plant.

The area above the top line is the amount of soil water in excess of what a given soil type can hold. This soil water will likely move down, through and

out of the soil root zone and possibly become ground water.

The area between the middle and top lines represents the soil moisture contents which most plants need for normal growth.

The area below the bottom line indicates soil moisture that is not available to the plant; e.g., if there is less than 4 percent moisture in a loamy sand soil within the root depth of the plant, it will not grow.

The area between the bottom and middle lines indicates a moisture level that is marginal to plant growth. The plant is becoming stressed at this point and, if further stressed by removal or damage to the top growth, it will begin to lose vigor, roots and thus its ability to grow. It is not unusual to reach this moisture level during late summer in much of Montana and other semi-arid areas.