

# Provincial Grazing Reserves in West Central Alberta

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## Introduction

In Alberta, 12 million acres of Crown lands within the settled area of the Province are administered by the Public Lands Branch. The land is managed to integrate uses such as grazing, recreation, cultivation, timber harvest, oil and gas development, and natural or protected areas. Opportunities for grazing of livestock are provided through grazing leases, grazing permits, and Provincial Grazing Reserves.

Grazing leases (10 year) and grazing permits (renewed annually) are issued on some 6 million acres of land, and provide about 1.5 million Animal Unit Months of grazing annually. In the central part of the province, grazing leases average about 640 acres in size and tend to be widely scattered. Grazing permits average 190 acres in size. Under grazing lease and permits access to these

lands by the public is at the discretion of the lessee or permittee.

The Grazing Reserve Program, which began in the 1930's operates 32 Grazing Reserves throughout the province, each averaging 22,000 acres in size. Grazing is provided for some 110,000 head of cattle and 17,000 head of sheep, owned by 1,600 patrons. The Reserves provide summer pasture for approximately 3% of Alberta's entire beef herd on pasture.

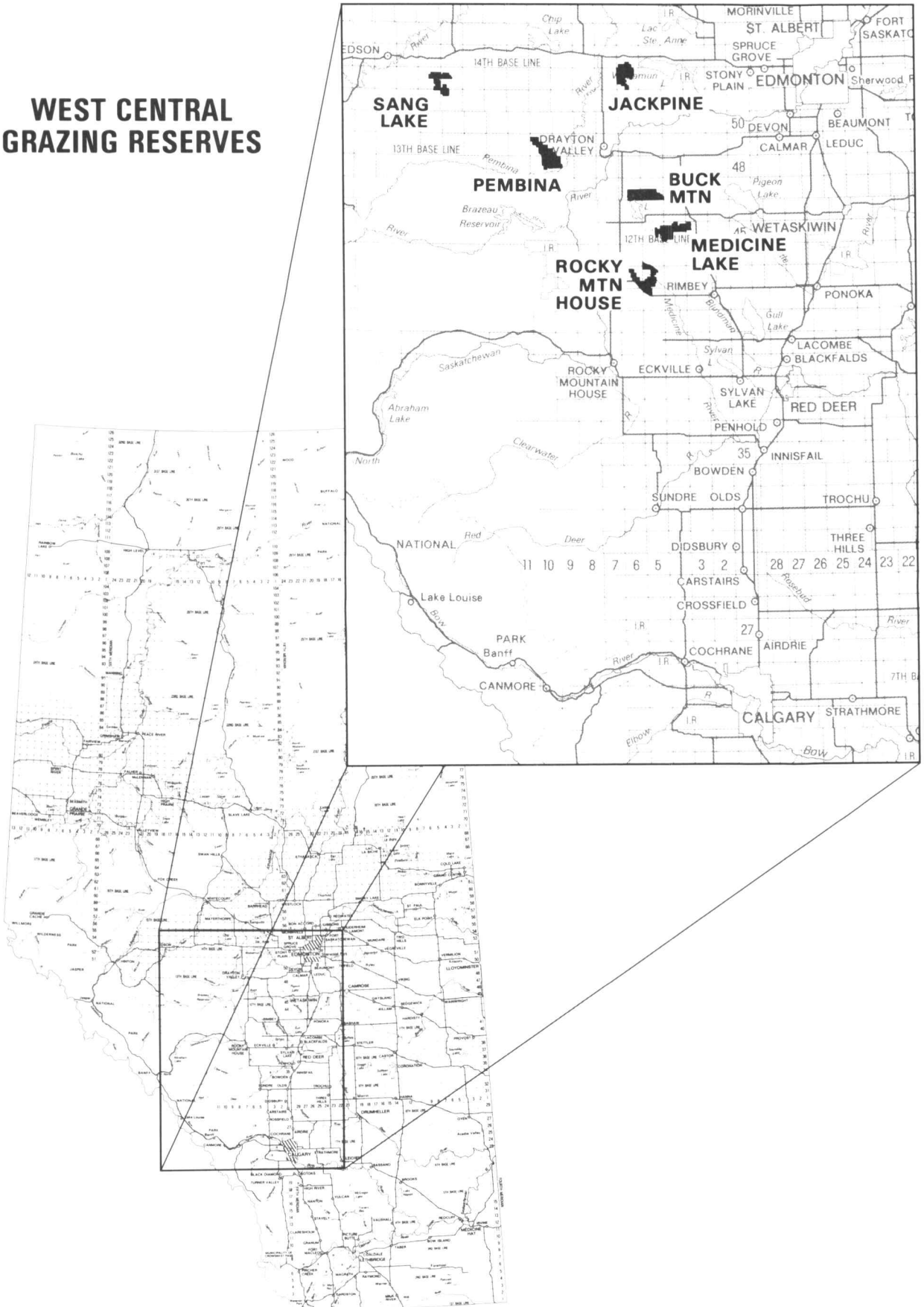
Provincial Grazing Reserves are community pastures, and differ from other types of grazing disposition in several ways. First, the Grazing Reserve Program is operated entirely by the provincial government. Second, while livestock grazing is the primary use, management for multiple use opportunities is an important focus. Public access is assured and managed to minimize conflicts with other resource uses. Finally, the Program strives to ensure that Grazing Reserves do not become 'closed shops', by regularly accepting new applicants. The stated objectives of the Program are "to deliver a supervised

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# WEST CENTRAL GRAZING RESERVES



grazing program and manage an optimal balance of conservation, public access, and other land uses".

### **West Central Grazing Reserves**

There are six Grazing Reserves in West Central Alberta, serving over 300 patrons in a region from south of Calgary to Edmonton. The Reserves, which cover 93,000 acres, provide over 60,000 animal unit months of grazing for 22,000 head of cattle and 1,000 sheep. The Reserves are located in one of Alberta's most productive forage zones; stocking rates average .75 acres per AUM and the grazing season extends from May 10 to October 31.

Of the 90,000 acres within the Reserves, only 42,000 acres have been developed into tame pasture. Livestock are grazed exclusively on these developed pastures; the balance of the area receives no livestock use. The ungrazed areas remain in forest cover and serve as wildlife habitat, wildlife travel corridors, water retention and riparian areas, and soil conservation areas.

The six Reserves represent 10% of all the public land in Central Alberta; hence, they are popular locations for a variety of recreational uses. Big game hunting is very popular on the Reserves; seasons commence following the removal of livestock. Upland bird hunting is also popular, and two Reserves host pheasant release hunts each fall. One Reserve is the location for biannual bird dog trials. Horseback activities are encouraged, and several events have been held. One Reserve is the location of an annual wagon train and trail ride attended by some 400 participants. Horseback endurance races have also been held. The Reserves host educational groups such as university range management classes, 4-H clubs, and winter survival training. Snowmobiling is popular during winter months.

### **Management**

West Central Grazing Reserves are operated with a staff which consists of one regional manager, one clerk, and on each Reserve a resident pasture supervisor. Additional seasonal riders are hired as required each summer, with one rider for each 1,000 cow/calf pairs.

Cattle are split into herds on each Reserve based upon breed of bulls. Typically, each Reserve has a Hereford-breeding herd, one or more exotic-breeding herds, and a pre-bred herd with reduced bull numbers. Cows with calves, as well as replacement heifers, make up the herds. No steers are taken.

Herds vary in size, but average about 350 pairs. Fields on the Reserves average about 350 acres in size. It has been found that optimum stocking is achieved by maintaining a balance between herd size and field size that gives one acre per cow/calf pair. Fields are rotationally grazed, with cattle remaining in each field for 2 to 3 weeks before being moved to the next field. Each field is grazed 2 to 3 times each season. Calf weight gains average 2 to 2.5 pounds per day.

All fields have been developed and seeded to tame forage species. Major forage species include timothy,

creeping red fescue, smooth brome, alsike clover, and orchardgrass. Under proper management fields remain productive for twenty-five years without any requirement for fertilizer, herbicide, or mechanical treatment. Very old fields are re-developed by re-breaking with large breaking discs (2 passes), followed by two passes of work down, seeding, and land rolling. Forage species are under-seeded with an annual cereal as a cover crop.

All livestock management, including monitoring, moving, and health care, is provided from horseback. The Reserves tend to have a minimum of roads and trails, and well-trained horses and riders are essential to the operation. Livestock requiring medical treatments are roped and treated in the field. Approximately 10% of the animals require treatment each year, and the major health problems are footrot, pneumonia, and pinkeye. Animals are required to meet minimum health standards at entry, and are inspected by a veterinarian at that time to ensure that standards are met. Salt and trace minerals are provided free-choice in granular form throughout the grazing season.

### **Patron Involvement**

Each Reserve operates with input from an Association of its patrons. Each Association elects a Board of Directors, and the Board assists in evaluating applications to place cattle on the Reserve. Priority for new patrons is given to local applicants; other selection criteria include need for pasture, and size and nature of ranching operation. Each patron is permitted to enter a maximum of 50 cow/calf pairs of equivalent. These rules are in place to try to ensure that as many cattle producers as possible are accommodated.

Patrons also assist in establishing local rules regarding bull quality, herd composition, entry and exit procedures, and cattle health requirements.

### **Financial**

Until recently fees for use of the Reserves have been \$Cdn 9.85 per AUM, plus about \$.50 per AUM for salt, mineral, and pharmaceuticals. (Fees on Crown grazing leases and permits, where livestock management is the responsibility of the owner, range from \$1.18 to \$2.37 per AUM). Now the Provincial Government is moving toward having grazing fees cover all livestock operation and long-term resource maintenance costs. This will increase fees on these Reserves to approximately \$13.00 per AUM by 1997. This will satisfy the goal of the program to achieve a break-even on livestock operations.

### **Conclusion**

The Provincial Grazing Reserve program in West Central Alberta strives to deliver integrated resource management, responsible livestock care, and exemplary range management, while recovering costs of livestock opera-

tion. It is felt that achieving these goals will maximize the benefits to all users of these public lands.

### Additional Reading

**Alberta Forestry, Lands, and Wildlife. 1988.** Alberta Public Lands. Pub. 1/201.

**Alberta Forestry, Lands and Wildlife. 1990.** Annual Report. Pub. 1/338.

**Alberta Forestry, Lands, and Wildlife. 1992.** Grazing Reserves—Eastern Slopes and Central. Pub. 11/192.

**Gerling, H.S. 1987.** Grazing lease and permit statistics for the White Area of Alberta. unpubl. Public Lands Division, Alberta Forestry, Lands, and Wildlife.

# Assessing the Long-term Availability of Forage from the Nation's Forest and Rangelands

Linda A. Joyce, Lane Eskew, and Edward Schlatterer

Concern for the long-term availability of resources from forest and rangelands motivated Congress in 1974 to require the Forest Service to analyze "present and anticipated uses, demand for, and supply of the renewable resources of forest, range, and other associated lands." Rangelands are being used for a wide variety of resources. Forest and rangeland now feed over 70 million cattle, nearly 8 million sheep, 45,000 wild horses and burros, 20 million deer, 400,000 elk, 600,000 antelope, and small numbers of goats, bison, wild sheep, and moose. Range vegetation provides grains, nuts, fruits, vegetables, medicines, range forage, fuelwood, firewood, specialty wood products, oil, rubber, and drought-adapted plants for agriculture, land reclamation, and landscaping. Some resources are sold in markets and while other such as wilderness experiences are harder to value monetarily.

The 1989 Range Assessment compiles the current scientific understanding of the ecology and the economics of rangelands to project the future use, demand for, and supply of rangeland resources 50 years into the future. The Assessment examines the biological, economic, and social factors affecting the use of rangelands and how those factors might change over time (USDA Forest Service 1989, Joyce 1989). These analyses show potential problems in the long-term availability of rangeland resources and the need for a careful consideration of

present and future management options for the nation's forest and rangelands.

### Projecting Future Supply/Demand

Because the law requires an analysis of the supply and demand of rangeland resources, early Range Assessments in 1975 and 1980 focused on products bought and traded in an observable market: livestock and meat. Forage produced on rangelands and forests is rarely traded in an observable market and so the available data were, and still are, insufficient to quantify a true supply estimate of range forage. Earlier analyses used an agricultural model developed by the Economic Research Service to estimate the future demand for meat and for livestock. In the 1989 Assessment, this economic model was used again to estimate the future demand for meat and livestock. Forage demand was derived from the demand for meat and livestock. In contrast to these earlier analyses, however, an attempt was made to examine the potential ability of regions across the United States to supply this demand and what the consequences of supplying this demand might be on other rangeland resources.

Conversion of rangeland to other uses and management decisions made by private landowners and by public land managers influence the supply of forage. On private land, owners determine forage produced within their operation based on the availability and the cost of land (their land, leased land, and public grazing) and technology. On public lands, public policy and multiple resource objectives influence forage availability through permits. We project factors that influence range forage production—land availability and technology—by using

This paper summarizes a more detailed and in-depth analysis titled *An Analysis of the Range Forage Situation in the United States: 1989-2040* by Linda Joyce. Readers interested in the technical background and references should consult this document.

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