

PUBLIC PASTURES – PUBLIC INTEREST

A Vision for the Future of Saskatchewan Heritage Rangelands: Backgrounder

Introduction

In the spring of 2012, the federal government announced it was transferring control of the PFRA pastures back to the provinces. In Saskatchewan the PFRA lands comprise 62 pastures totaling 1.8 million acres. The land for the pastures is almost all provincially owned. While the Manitoba government intends to keep the land under public ownership, the Saskatchewan government has announced it plans to sell or lease the land to farmers and ranchers who have been grazing livestock on the pastures. The Province has also said that it does not want to manage the pastures.

A forum on the pastures was held on November 23, 2012 in Regina. A second event, the “Forum on the Future of the PFRA Pastures,” was held on March 1, 2013, at the University of Saskatchewan in Saskatoon. The Saskatoon forum was attended by over 100 rural and urban residents including, farmers, ranchers, conservationists, First Nations, scientists, and academics.

The following principles were developed by Public Pastures – Public Interest based on input from the forums, further discussions and research evidence.¹

The Principles

1. Keep ownership of the PFRA pastures in the public domain.

This is the best way to balance diverse interests, to preserve the integrity of the pastures, and to ensure that the legacy of the pastures is secured for future generations. Public ownership provides a democratic way to allocate benefits provided by the pastures and to respond to the interests of cattle producers, the volunteer sector, First Nations, the science community, and government. It ensures that decisions relating to the pastures are transparent and accountable.

- Public ownership is both an opportunity and a responsibility.
- The PFRA pasturelands, once degraded by unsustainable agricultural uses and drought,² were restored under public ownership and science-based management.
- The PFRA pastures are an important element of our prairie economy, along with privately managed ranches and farms.
- While the pastures provide direct benefits to the farmers and ranchers that participate in the Community Pastures Program, the PFRA pastures also provide many benefits to the public that should be maintained through public responsibility for the lands.

¹ Released March 27, 2013, in Regina, Saskatchewan by Public Pastures—Public Interest, <http://pfrapastureposts.wordpress.com/public4pastures@gmail.com>.

² Jones, D. C. (2002). "Empire of dust: Settling and abandoning the prairie dry belt." University of Calgary Press, Calgary, Alberta.

- The PFRA pastures and prairie parks co-exist in a complementary partnership with ranching on public and private lands. The PFRA pastures provide opportunities for the conservation of unique features (e.g. species, landscapes, ecological services) achieved by using a cost-effective, production-integrated approach based on the use of the whole pasture. The options on privately managed grasslands are more limited and more costly, and less direct³ legislative approaches need to be applied (e.g. Species at Risk Act, Conservation Easement legislation, water, soil and wildlife regulations).
- Public ownership and direction has also enabled important scientific research.

2. Maintain livestock grazing as a priority.

Livestock grazing is essential to the management of healthy prairie grasslands and to maintaining cattle and other livestock production now and in the future. This is a win-win arrangement that benefits producers and preserves the natural ecosystems in the pastures. In ecological terms the grasslands of the northern Great Plains are a 'sub-climax,' meaning they are maintained so by outside factors. Bison and naturally occurring fire maintained the productive grassland ecosystem⁴ as the Assiniboine, Blackfoot, Plains Cree, Sarcee, and the early explorers and settlers once knew it.^{5,6} In grasslands ecology, grazing by cattle can play a role similar to that of the bison.

- Range ecologists inform us that climate, soils, plants and animals function as a unit to shape grasslands. They further remind us that any change in one factor, such as that caused by fire or grazing, changes the whole complex.^{7,8}
- Cattle are needed to maintain viable remnants of our grassland heritage. Grazing and the conservation of grasslands on the northern Great Plains are one of the classic examples of a win-win relationship.⁹
- In the capable hands of a dedicated manager, cattle and other large grazers can be used strategically in grassland restoration. This restoration improves soil and water quality, helps with drought-proofing rangelands¹⁰ and increases resistance to invasive species.
- Grazing by cattle can be managed to support the ecological diversity of grasslands, providing different types of habitat that is distributed strategically in the province.
- When biodiversity protection is integrated with grazing it adds benefits in ways that turn out to be very efficient. For example, Richardson's ground squirrels can be a significant agricultural pest and are often poisoned with strychnine¹¹ on private or lease land. Strychnine also kills non-target animals particularly

³ Thomas, L. (2000). "Don't ignore the dangers of ballooning endangered species list." Canadian Cattlemen 63(6):27.

⁴ Knopf, F. L., and Fred B. Samson, Eds. (1997). "Ecology and conservation of Great Plains vertebrates." Springer Verlag, New York.

⁵ MacGregor, J.G. (1976). "The Battle River Valley." Western Producer Prairie Books, Saskatoon, SK.

⁶ Gross, D. V., and J. T. Romo (2009). "Temporal changes in species composition in Fescue Prairie: relationships with burning history, time of burning, and environmental conditions." Plant Ecology (Online) DOI 10.1007/s11258-009-9693-1.

⁷ Dormaar, J.F. and R.C. Foster. (1994). "Soil quality – Maintenance of the rooting zone." Pages 25-33 in R.C. Wood and J. Dumanski, Eds., Sustainable Land Management for the 21st Century. Proceedings of the International Workshop on Sustainable Land Management for the 21st Century, University of Lethbridge, Lethbridge, Alberta.

⁸ Li, Y.S., and R.E. Redmann. (1992). "Nitrogen budget of *Agropyron dasystachum* in Canadian mixed prairie." Am. Midland Nat. 128:61-71.

⁹ Rosenzweig, Michael L. (2003). Win-Win Ecology How the Earth's Species Can Survive in the Midst of Human Enterprise, Oxford University Press, New York.

¹⁰ Christian, J. and S. D. Wilson. (1999). "Unveiling all of the Consequences: Introduced Plants may be Causing Hidden Trouble." Ecology (October issue).

¹¹ Hansen, L. (2010). "Saskatchewan declares war on gophers." National Public Radio.

seed eating birds.¹² Instead of poisoning, ground squirrels can be kept in check by keeping grass vigorous through managing grazing with no economic loss to patrons.

3. Utilize professional pasture managers.

It has taken decades to build up the expertise needed to manage the livestock and grazing, the ecosystems, and the habitats for indigenous species and species at risk. Pasture managers are part of a system-wide team that helps them to improve their individual practices and provides coordinated support. Pasture patrons have dubbed their PFRA pasture manager as 'their best asset.' Raising beef is challenging enough, and when expectations include management of wildlife and habitat preservation, control of invasive plant species, soil conservation and flood prevention, the management becomes both an art and a science.

- Farmers with small herds can entrust pasture managers with their cattle. This leaves them free to manage their farms and crops during the growing season. This gives farmers a more diversified income and contributes to the stability and strength of the agricultural economy.
- Pasture managers have veterinary skills, are versed in accepted practices in animal care, are able to read cows, manage bulls, and treat both when sick or wounded. This is done typically off of horseback on the large grazing fields, often far from a chute or corral.
- On the public good side, pasture managers monitor changes in native plant communities, plan and manage grazing patterns to adapt to changing conditions, and balance the demands of cattle with the requirements of sensitive wildlife species. They coordinate strategic grazing and biological control of invasive species,¹³ and endangered species recovery projects. They also oversee industrial projects on pasture lands (such as oil and gas wells).
- The pasture managers work as part of a team with scientists and other specialists. They continually update their skills and knowledge, develop new best practices, and share that knowledge with the livestock industry.
- Pasture managers are expected to engage with patrons but also manage access by nature enthusiasts, hunters, fishers, and researchers, as part of the public service that public ownership can guarantee.

4. Preserve the natural landscapes and ecological integrity of the pastures.

Preservation of the natural landscapes and ecology of the pastures is important at a World level. They contain the largest contiguous blocks of original prairie grasslands in the Northern Great Plains. They are home to many indigenous species, including 32 species at risk found in 55 of the pastures. An ecologically intact, healthy grassland community is resilient. It resists drought and is less vulnerable than over or under-grazed grassland to invasive species. The pastures provide quality habitat that prevents species from becoming at risk of extinction and protect those that are in trouble.

- We have only 18% of the original prairie left in Saskatchewan; 3% is PFRA land and 15% is in private ranching. It is vitally important to preserve the community pastures which comprise a significant portion of the small amount of original prairie left to us.

¹² Schmutz, J. K., Karrie A. Rose and Robert G. Johnson (1989). "Hazards to raptors from strychnine poisoned ground squirrels." J. Raptor Res. 23:147-151.

¹³ Belcher, J. W., and S. D. Wilson. (1989). "Leafy Spurge and the Species Composition of a Mixed-grass Prairie." Journal of Range Management 42:172-175.

- All of Saskatchewan's grassland ecoregions have at least one PFRA pasture, and some have several. The network of pastures is well-suited to maximizing biodiversity protection. They include many diverse local plant communities, each with its own complement of species and unique eco-varieties within those species.
- The PFRA pastures are large and well-distributed. They can serve as stepping stones for wildlife, with the land between them serving as migration corridors. This is an example of how pastures are connected to and benefit areas outside their boundaries, and the advantage of maintaining these rangelands as a network.
- The biodiversity supported by healthy natural landscapes provides a stock of beneficial organisms that disperse into surrounding areas, helping to control pest outbreaks and providing efficient crop pollination.¹⁴
- A key feature of the success of the PFRA community pastures and some privately managed ranches, is the strategic maintenance of locally adapted grass species. Native prairie's ability to perform well during drought or other disturbances is due to differences in the traits found in prairie species, and the greater chance that the range of plants found on natural prairie will contain a species that does well under varying conditions. A seven-year experiment¹⁵ showed that diversified prairie species plots grew 2.7 times more grass than comparison plots. Resistance to drought also increased with the number of species present.
- When prairie is well managed, the soil absorbs water better than most other land cover, providing flood protection, groundwater recharge, and clean, and slow-release source water for creeks and rivers.
- Dedicated protection of a portion of every nation's natural landscapes is a global responsibility. On the Canadian Prairies, this is formally recognized under the Temperate Grasslands Conservation Initiative of the IUCN (International Union for Conservation of Nature),¹⁶ the Biodiversity Convention,¹⁷ and the North American Free Trade Agreement.¹⁸ The PFRA pastures are also part of Saskatchewan's Representative Areas Network.¹⁹

¹⁴ Garibaldi, Lucas A. et. al (2013). Wild Pollinators Enhance Fruit Set of Crops Regardless of Honey Bee Abundance. Published Online February 28 2013, Science DOI: 10.1126/science.1230200.

¹⁵ Tilman, David, Peter B. Reich, Johannes Knops, David Wedin, Troy Mielke, Clarence Lehman. (2001). Diversity and Productivity in a Long-Term Grassland Experiment. *Science* 294(5543):843-845.

¹⁶ Henwood, William D. (2004). The global protection of temperate grasslands: A global perspective. Pages 21-29 in Proceedings: 7th Prairie Conservation and Endangered Species Conference, Coast Plaza Hotel, Calgary, AB, 26-29 February.

¹⁷ Barbier, E. R. (2012). "Sustainability: The green economy post Rio+20." *Science (PolicyForum)* **338**(6109): 887-888.

¹⁸ Banasch, U., Ed. (2005). "North American Conservation Action Plan: Ferruginous Hawk *Buteo regalis*." *Commission for Environmental Cooperation, Montreal, Quebec.*

¹⁹ Saskatchewan Environment, *Saskatchewan Area Network Frequently Asked Questions*, <http://www.environment.gov.sk.ca/adx/asp/adxGetMedia.aspx?DocID=748,623,247,94,88,Documents&MediaID=321&Filename=RAN+FAQs.pdf&l=English> Accessed March 22, 2013. A representative area is a sample or piece of a particular landscape which has been set aside to preserve natural and/or cultural features. Representative areas also serve as benchmarks to monitor activities and their effect on the environment.

5. Protect the cultural and historic significance of these heritage rangelands.

The pastures contain significant heritage and archaeological sites, and sacred and ceremonial sites that are still significant in contemporary First Nation and Métis cultures. They have played a key role in settlement of the prairies and Canada's agricultural development, and they continue to preserve the tradition of working cowboys. The pastures are part of the history, culture, and vitality of rural Saskatchewan. They are a living legacy of a prairie and national culture that led to the formation of a program caring for agricultural land.

- Teepee rings, sundials, graveyards, buffalo drives sites, buffalo rubbing stones and historic trails are some of the important sites on PFRA lands.
- Thousands of current-day Canadians can trace their family tradition to the settlement period. The pastures are current-day living museums, a reminder of the aspirations of their ancestors.
- Pasture managers, by-and-large, are cowboys adept in a horse-based pastoral tradition that had its roots in Asia and came to North America via Spain.²⁰ Pasture managers keep a cowboy culture alive even in those parts of Saskatchewan where ranching is a minority land use.
- Activities such as cattle drives are an important part of current local community life for people working with livestock.
- Recreational activities, berry harvesting and hunting also enhance the lives of individuals, families and communities.
- The pastures reflect an ecosystem misunderstood in the past. This ecosystem was restored when the mismatch between land capability and agricultural use was corrected. Today the PFRA pastures provide a world-class example of sustainability in action.

6. Recognize and sustain the investment in the public benefits provided by publicly-owned community pastures.

Through the visionary action taken by key agricultural leaders more than 75 years ago, public resources were applied to restore degraded land to a state that yielded economic production and environmental benefits year after year. The PFRA community pastures provide one of the best examples of a "triple-bottom-line" enterprise: they provide an environmental, social and economic dividend to all Canadians. This investment needs to be continued now and in the future.

- A detailed analysis of costs and benefits of the PFRA Pastures Program showed that an annual operating cost of \$22 million was shared appropriately between the public (47%) and patrons (53%). This study also showed that the total benefits from pastures, including beef production and ecological services (e.g. carbon sequestration, biodiversity, recreation), exceeded operating costs by 2.5 times.
- The pastures provide public benefits such as biodiversity, carbon sequestration, soil and water conservation, and recreation.
- Hunters, artists, nature enthusiasts, educators and researchers have come to PFRA pastures because the public ownership has fostered quality experiences.

²⁰ Jordan, T. G. (1993). "North American Cattle-Ranching Frontiers: Origins, Diffusion, and Differentiation." University of New Mexico Press, Albuquerque.

- The opportunity for access to land for research is another benefit of publicly owned lands. PFRA pastures played a part in 25 studies in one year alone. This research has been important in successful adaptation and management of the pastureland, and for drought and water management. It has also been important in identifying cultural and historic sites, understanding grasslands ecology, species management and protecting endangered species. In recent years, research focus has shifted to searching for adaptation strategies under impending climate change.
- Patrons should not be asked to pay for more than the cattle production benefit they derive. The remaining cost is public responsibility and provides great value. This approach stands to reason from a sense of fairness that is commonplace. Cost, benefits, opportunity and responsibility should be allocated fairly. Recognition and value is needed to ensure the maintenance of the public benefits of the community pastures.
- In Manitoba, the province intends to maintain public ownership of the land. The multiple uses and benefits of the PFRA pastures are recognized, with the understanding that patron grazing benefits and public good benefits will be sustained.
- Alberta has only three PFRA pastures that will be incorporated into Alberta's own prairie conservation and community pastures system.
- In keeping with Canada's international obligations (e.g. IUCN, Biodiversity Convention, NAFTA), coordinated and, where possible, similar conservation approaches should be taken across the Prairie Provinces.

A Strategy Forward

Members of Saskatchewan's and Canada's conservation communities seek an inclusive pasture transition process. Conservationists, farmers and ranchers have essential expertise and great wisdom to contribute. By consulting broadly, a viable model can be developed that protects the history, ecology and livestock production capacity of these lands, and sustains the flow of public benefits into the future. The following are important steps in maintaining the benefits provided by the pastures.

A. Work with stakeholders to establish an inclusive Transition Plan.

We need a clear and transparent transition plan to manage the changes to the PFRA community pastures. Participants in the planning should include: governments, pasture patrons, municipalities, First Nations, industries, conservation organizations, range managers and others. We need to hear the voices of those most directly impacted. These stakeholders should be given the opportunity to come together to arrive at a solution. The goal should be to ensure that the best-management practices developed through the PFRA continue to serve pasture patrons, protect our natural and cultural heritage, and provide benefits for the people of Saskatchewan.

B. Take the time to get it right.

The decision of the federal government was made without consultation. The Saskatchewan government has bought a little time from the federal government to do some review of the situation, but forcing a decision to dispose of the first ten pastures by the Fall of 2013, as currently planned, is too rushed. Time is needed for the general public, who are the owners of the land, and the various stakeholders, to determine what the future of the community pastures will be and how they can be preserved for future generations.