

# SASKATCHEWAN PRAIRIE CONSERVATION ACTION PLAN

*PREPARED BY*

*PCAP COMMITTEE*

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**T**he Committee responsible for

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### **Background**

The North American Great Plains region extends over the widest latitudinal range of any single ecological region on the continent and is the only region common to the three countries of North America. The prairies extend for about 1,500 km from Alberta, Saskatchewan and Manitoba in Canada, south through the Great Plains of the United States to southern Texas and adjacent Mexico, and approximately 600 km from western Indiana to the foothills of the Rockies and into northeastern Mexico.

The Great Plains is a culturally-molded ecosystem. Beginning in the late 1800s, Saskatchewan's great expanse

of grasslands with areas of fertile soils on the northern great plains attracted settlers by the hundreds of thousands. Today, agriculture is the most important economic activity as well as the dominant land use for this ecological region.

The cultivation of the grasslands has contributed to the development of a prosperous society. However, there have also been impacts from these land use activities that are being addressed through various conservation and management activities.

These activities address a variety of societal values that include issues of agricultural sustainability, biodiversity conservation, the protection of aboriginal heritage, and the maintenance of ecosystem health.

### **Goals and Objectives**

Saskatchewan's Prairie Conservation Action Plan complements similar provincial efforts in Alberta and Manitoba and builds upon the first Prairie Conservation Action Plan put forward by World Wildlife Fund Canada in 1989. This plan reflects agreement among representatives of sixteen government agencies and national and non-governmental organizations regarding the conservation of the province's remaining native prairie. The authors set forward five goals to help conserve the native prairie.

*Goal 1: To sustain a healthy native prairie grazing resource.*

The native prairie provides a range of values, uses, goods and services for our society including forage, water and soil conservation, recreation, medicinal plants, heritage, wildlife and genetic resources.

Livestock producers can and do maintain healthy prairies with rich wildlife and high levels of native biodiversity.

Studies show that proper grazing by livestock has no adverse effects on plant community or soil characteristics. Three objectives are proposed under this goal:

- promote the adoption of sound rangeland practices;
- foster an increased societal appreciation of the role of the livestock

industry in prairie conservation,  
and

- support the efforts of private and public land managers who conserve native prairie in Saskatchewan.

*Goal 2: To conserve the remaining prairie resource.*

Much of Saskatchewan's prairie land base is intensively cultivated. Such areas are characterized by fertile arable soils which evolved under our most productive grasslands. The conservation of the remaining native prairie would be fostered by accomplishing the following five objectives:

- identify and monitor the extent and health of remaining native prairie;
- encourage voluntary landowner stewardship to conserve the remaining privately owned native prairie;
- use the potential of the Conservation Easements Act to conserve native prairie;
- ensure that property taxation and assessment policies are at least neutral relative to native prairie; and
- change regulations, policies, programs and economic instruments that are the most significant in terms of their negative impact on prairie conservation, i.e. remove policy and program disincentives to conservation.

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## EXECUTIVE SUMMARY

*Goal 3: To maintain Saskatchewan's native prairie biological diversity.*

This is a daunting task as extensive cultivation and transportation corridors have shrunk and fragmented the habitat base. Many of Saskatchewan's species at risk are grassland species. Eight objectives address this goal:

- complete Saskatchewan's Representative Areas Network;
- seek to stop further cultivation;
- minimize the threat from exotic species invasion;

- restore degraded prairie ecosystems;
- develop indicators of native prairie health;
- aid species recovery;
- improve understanding of biodiversity, and
- minimize the impacts of industrial developments.

*Goal 4: To promote the sustainable use of native prairie to enhance the quality of life.*

Conservation means wise use. Goal four endeavours to recognize the value of remaining native prairie through improvements in human use of those remnants. Objectives to achieve these improvements include:

- better range management;
- ecotourism development;
- use of native plants to develop “ecovars” (see Glossary);
- the development of a native plant seed industry;
- developing new pharmaceutical and biochemical uses for native plants and,
- quantifying the economic and environmental contribution of native prairie and perennial grasslands.

*Goal 5: To promote education and develop communication programs regarding the conservation and sustainable use of native prairie.*

The last goal sets an objective that encourages an ecosystem management approach to land within the prairie ecozone. Attaining this objective requires the development and implementation of communications and public education programs through a full partnership of interests.

### **Implementation of the Plan**

Implementing conservation programs in the prairies requires working with a large number of private owners, lessees, rural and urban municipalities, the provincial and federal governments, First Nations and a host of interest groups. Seven objectives are outlined for successful implementation of the plan.

*1. Develop a detailed implementation plan complete with budget and agency responsibilities.*

*2. Seek formal endorsement of the detailed implementation plan.*

3. Form a steering committee from the PCAP partnership to oversee the implementation phase.

4. Establish a home office with a staff person to coordinate on-going implementation activities among the partner groups.

5. Develop a communication program that keeps the PCAP alive.

6. Issue yearly updates or progress reports that outline the activities towards the achievement of PCAP goals and objectives.

7. Organize local meetings and broader regional or prairie wide workshops and public information sessions.

One of the more important aspects of Saskatchewan's PCAP is that it details which agency or non-governmental organization can contribute to the delivery of each activity and it provides a time line for deliverables. Provisions are also made to ensure that coordinated implementation is achieved through the creation of a group that will steer and monitor the actions of the plan.

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**Canadian Wildlife Service**

**Grasslands National Park**

**Grazing & Pasture Technology Program**

**Prairie Farm Rehabilitation Administration**

**Agriculture & Agri-Food Canada**

**Saskatchewan Wetland Conservation Corporation**

**World Wildlife Fund Canada**

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**TO PUBLICATION**

*Saskatchewan Prairie Conservation Action Plan*

**T**his plan is intended to offer

direct actions for the conservation of native prairie in Saskatchewan. It represents a consensus among numerous agencies, organizations and institutions to address the loss and deterioration of remaining native prairie. The plan is intended to achieve sustainable development objectives within the context of appropriate management of prairie ecosystems. It complements similar provincial efforts in Alberta and Manitoba and builds upon the first Prairie Conservation Action Plan put forward by World Wildlife Fund Canada in 1989.

### **Sustainable Development**

Sustainable development is a type of contract made cooperatively among citizens that commits them to meeting their own needs without seriously compromising the rights of others. It emphasizes the need to live within and as part of nature, of saving for the future and ensuring that the environmental attributes that support life are maintained. In current thinking, there are three principal environmental goals for sustainable development: to assure ecosystem integrity; to assure human health and well-being; and to assure natural resource sustainability. Sustainable development cannot be achieved without achieving all of these elements. Typically, five questions are asked in regard to sustainability: What is happening? Why is it happening? Why is it significant? What is being done about it? Is it sustainable?

The Prairie Conservation Action Plan recognizes that the conservation of native prairie can only be accomplished within this view of sustainable development, which requires that we think, plan and act in terms of ecosystems.

### **Ecosystems**

An ecosystem is a dynamic complex of organisms, including humans,

and their physical environment, interacting as a unit. Ecosystems vary in their size and their composition and are related among one another. They can be as large as the entire ecosphere or they can be very small areas. They can be pristine or heavily human-modified systems. In its broadest sense, an ecosystem includes environmental, social, and economic elements. Ecosystems are dynamic, constantly changing over time. Humans, however, are now one of the foremost agents which bring about change. Interventions by humans have resulted in impacts over local and large areas and through different time periods. Many questions arise: Will agricultural areas remain productive and agricultural activities be sustainable? Will wildlife species and habitat survive? Will ecosystems recover from degradation due to pollution, overuse or other factors? North America is a mosaic of diverse ecosystems. Many possess unique

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# INTRODUCTION

*Prairie mixed grassland.*

## 1

natural features of worldwide significance and many are considered highly productive. Traditionally, humans in western society have viewed themselves and their activities as separate and isolated from these ecosystems. It is apparent, however, that human activities and the environment are highly related. There is recognition that without healthy ecosystems, a high quality of life and economic prosperity cannot be sustained. This view is a core principle in what has become known as the Ecological Perspective which recognizes the importance of viewing humans as part of, rather than

separate from, the world's ecosystems. In recognition that environmental issues are complex and not restricted to political or jurisdictional boundaries, an ecological perspective is necessary to promote a common basis for understanding. It is an important tool to foster cooperative work on protecting the environment and to discuss matters affecting the sustainability of resource use, human activities, and ecosystem integrity.

***The Ecological Perspective is based on:***

- accepting that interactions between the environment (air, water, land and biota), and human activities (social, cultural and economic systems) are inseparable;
- realizing that humans are a major driving force of ecological change;
- recognizing environmental thresholds, and their importance and linkage to human activities;
- incorporating the needs of current and future generations;
- implementing a "long-term" perspective that is anticipatory, preventative and sustainable.

It is essential that ecosystems do not become stressed beyond a threshold that results in undesirable and irreversible changes. We need to understand the diversity of ecosystems, their importance to a variety of human and non-human needs, and their status over the long term. Failure to do so undermines our ability to assess the integrity of ecosystems and eventually could result in environmental degradation, poverty and loss of economic wealth to nations.

An ecological perspective can improve understanding about the conditions and trends that are shaping the prairies. As a planning tool, an ecological perspective can ensure that a comprehensive and holistic approach is taken on environmental issues, rather than an isolated or "sector-by-sector" analysis. It can assist in setting priorities for action that consider the unique and critical environmental assets found in the

prairies. An ecological perspective can provide a common organizational perspective amongst the diverse interests of citizens and aid in development of cooperative policies and planning efforts.

Figure 1 shows the Prairie Ecozone which occupies approximately 5% of the total area of Canada.

Saskatchewan contains approximately 51% (241,000 sq. km.) of the prairies of Canada and this ecozone occupies approximately 38% of the province. Under one-third of the Prairie Ecozone of Canada is in improved and unimproved rangeland and pastures, with unimproved rangeland making up the largest part of that amount. Cropland accounts for approximately two-thirds of the Prairie Ecozone and the remainder is comprised of urban areas, water bodies, forested lands, and transportation corridors.

More than 80% of the economic activity of the province is generated in this ecozone, with agriculture as the dominant land use. Called the breadbasket of Canada, much of Canada's and Saskatchewan's cropland, rangeland and pasture are located in this ecozone. The other major activities contributing to the economy are mining (coal, potash, mineral, and aggregates) and oil and gas production.

Despite the dominance of agricultural activities on the landscape, the majority of the population is found in urban communities.

The partners in developing this plan recognized the need to move away from an emphasis on individual environmental and socio-economic elements and shift towards a more comprehensive and consensual approach. The plan provides a common base for developing a dialogue and enhancing communication among different jurisdictions, organizations and disciplines. It was built through a process of consultation, collaboration and compromise. It is presented to a wide range of users. Each action encourages further refinements to be made. In the future, this plan will be revisited to

reflect our growing understanding of the ecology of the prairies.

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*Figure 1. Rangeland and pasture in the Prairie Ecozone of Canada (derived from satellite image data provided by the Manitoba Centre for Remote Sensing; prepared by Lorena Patino, Canadian Plains Research Center, University of Regina).*

**T**he first Prairie Conservation

Action Plan (PCAP) was developed in the late 1980s through an initiative led by World Wildlife Fund Canada. The major concerns of the first PCAP were the protection of Canada's remaining native prairie and its associated endangered species. The plan set out a vision for Prairie Canada that committed to leave some "Wild in the West." It stated in its introduction:

"Canadians need to ensure that native prairie, with its wild plants and animals, survives in the west and is conserved for its intrinsic values, from which this and future generations can benefit."

The time frame for the plan was between 1989 and 1994 in which time ten principal goals were to be achieved: to identify the remaining native prairie and parkland; to protect at least one large, representative area in each of the four major prairie ecoregions; to establish across the three prairie provinces a system of protected native prairie ecosystems and, where possible, connection corridors — this system should include representative samples of each habitat subregion; to protect threatened eco-systems and habitats by preparing and implementing habitat management and restoration plans; to protect and enhance the populations of prairie species designated nationally or provincially as vulnerable,

threatened,  
endangered or extirpated,  
by implementing  
recovery and management  
plans; to  
ensure that no additional  
species become  
threatened, endangered  
or extirpated; to  
encourage governments  
to more explicitly  
incorporate conservation of  
native prairie in their programs; to  
encourage balanced use of private  
lands that allows sustained use of  
the land while maintaining and  
enhancing the native biological  
diversity of the prairies; to promote  
public awareness of the values and  
importance of prairie wildlife and  
wild places; and to promote  
research relevant to prairie conservation.

While the first PCAP provided a  
visionary master plan for the conservation  
of prairie species and spaces,  
it lacked mechanisms to ensure that  
the actions were executed and their  
results monitored. It was left to the  
good will of the participants to take  
on the tasks that all thought they  
could or should do, and work to  
realize the ten goals. In reviewing  
the 1989 plan, it is apparent that  
none of the goals were fully met and  
that a few have seen very little  
progress. There was no coordinated  
implementation strategy or mechanisms.  
Primarily, the action plan's  
lack of effectiveness was due to the  
lack of involvement from the agricultural  
sector and a lack of time-specific,  
assigned responsibilities to carry out  
the tasks.

The importance of achieving the  
goals of the first plan within the context  
of sustainable agriculture in  
Saskatchewan prompted Saskatchewan  
Environment and Resource  
Management (SERM) and the Saskatchewan  
Stock Growers' Association  
(SSGA) to establish a process for  
renewal of the plan. The process  
involved bringing together a partnership  
of various provincial and federal  
organizations and agencies,  
called the Saskatchewan Prairie

Conservation Action Plan  
Committee, to revise and create a  
new version of the Saskatchewan  
Prairie Conservation Action Plan.  
This document is the result of their  
substantial efforts.  
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# BACKGROUND

*First PCAP report*

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# VISION STATEMENT

# OF THE PARTNERSHIP 3

\* Note that for the purposes of this Action Plan, “native prairie” is defined as native grassland and parkland aquatic and terrestrial habitats within the Prairie Ecozone of Saskatchewan.

*“The native prairie\* is to be sustained in a healthy state in which natural and human values are respected.”*

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# GOALS AND OBJECTIVES

# OF THE NEW ACTION PLAN 4

*TO SUSTAIN A HEALTHY NATIVE  
PRAIRIE GRAZING RESOURCE*

## **Background and Rationale**

The native prairie provides a range of values, uses, goods and services for our society, including forage, water, soil conservation, recreation, medicinal plants, heritage, wildlife, and genetic resources. However, many of these values are, as yet, unrealized by our society. In addition to being an important habitat and source of forage and water for wildlife, the remaining native prairies provide significant grazing for livestock, including cattle, sheep and specialized livestock. Ranching and livestock production play an important role in conserving the remaining prairies. Properly managed ranches have maintained healthy prairies with rich wildlife and high levels of native biodiversity. Ranching and livestock production also contribute significantly to the rural and provincial economy, providing more than five million Animal Unit Months' production for livestock with an estimated annual income of \$200-300 million. In addition, ranching represents an important western Canadian heritage and way of life. It is, therefore, important to conserve and maintain the remaining native prairie for the use and enjoyment of present and future generations.

The native prairies evolved under natural disturbances such as fire, drought and grazing. Individual prairie plants and communities possess strategies to cope with these disturbances and a moderate level of disturbance appears to be necessary to maintain the ecological integrity and biodiversity of the native prairies. Interference by people has minimized or eliminated prairie fires since the advent of European settlement. Grazing by bison, the dominant native grazer, has been largely replaced by domestic livestock. Long-term studies show that proper grazing by livestock has no adverse effects on plant community or soil characteristics. For example, a recent study revealed that cattle diet does not significantly overlap with deer

diet, even in ungulate-rich areas such as the Great Sand Hills. Studies in the U.S. show some improvement of deer habitat as a result of planned livestock grazing systems. The scientific literature suggests that moderate grazing by herbivores is often beneficial to the plant community as a whole. Diversity tends to increase when grazing reduces the numbers of dominant species. In some cases, net primary productivity is greater with the grazers than it would be without them, therefore, grazing by *Cattle grazing on rangeland. Saskatchewan Prairie Conservation Action Plan* ungulates may help with nutrient cycling, an essential eco-system function.

***Objective 1: Maintain or adopt sound rangeland management practices that are reflective of local conditions.***

Ecologically-based management and monitoring is key to maintaining the health, native biodiversity and ecological integrity of prairie ecosystems. This is achieved through the application of sound rangeland management practices that take into account all forage resources and multiple uses. Range management is a relatively new field in Saskatchewan. The first range condition guide was developed only recently. The SSGA and the Extension Service of Saskatchewan Agriculture and Food are jointly conducting range management extension activities. The Prairie Farm Rehabilitation Administration has made substantial contributions to our understanding of range management. Both provincial and federally funded programs have resulted in an increased awareness of the importance of proper rangeland management. However, more work is needed to help additional ranchers improve their native prairie through ecologically-based planned management and monitoring. Industries, such as the energy sector, operating on native prairie will also need to adopt ecological approaches in their exploration, production practices

and restoration efforts.

The present rangeland extension programs in Saskatchewan tend to be disconnected from one another

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*Using principles of appropriate range management leads to healthy riparian habitats and water and soil conservation.*

*Well managed rangelands provide protection against soil and water erosion.*

and short-term in nature, largely due to intermittent funding. There is a need for a more stable program that still involves producers in its administration and direction.

***Objective 2: Foster an increased societal appreciation of the beneficial role played by the livestock industry in the conservation of native prairie.***

The urban population of Saskatchewan is expanding while the rural population base is declining. Also, many city people are becoming distanced from the natural ecosystem.

There is, therefore, a need to reach all segments of the population to explain the values of our native prairie, the role played by the livestock industry in its maintenance, and the functions of prairie conservation.

***Objective 3: Recognize and support the efforts of private and public land managers who conserve native prairie in Saskatchewan.***

Some ranchers, other livestock producers and land managers are presently doing a remarkable job in conserving their native prairies.

Their efforts should be recognized. Also, information about their operations should be compiled and made available to other ranchers.

Exchange of information among all livestock producers is an effective way to promote sound rangeland management practices.

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*The conservation efforts of livestock producers should be recognized.*

*Urbanization and cropland production have significantly reduced native prairie in Saskatchewan.*

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## **Background and Rationale**

Production agriculture is the dominant land use activity on much of the southern Saskatchewan landscape. Since the early 1900s the availability and the quality of remnant native prairie and other natural areas have declined markedly due to settlement and agricultural development. In many regions, these natural areas have been reduced to small remnants within a matrix of differing agricultural uses. Although the total area of land used for agriculture in Saskatchewan has remained relatively stable since the 1970s, the amount and quality of these smaller remnants within the larger agro-ecosystem has decreased. Many of these areas are threatened with further agricultural disturbance and development, lack of active management and invasion by exotic plants. The impact of cultivation on the native grasslands of Saskatchewan has been the most intensive in ecoregions with the most productive soils.

Wetland and wetland margins, and lacustrine soils where potential for agricultural production is high, continue to be threatened, particularly in eastern parts of Saskatchewan. Such areas are relatively easy to farm, particularly in dry years, and many are underlain with productive soils. Institutional policies, cultural attitudes and lack of awareness have firmly entrenched wetland drainage as an acceptable tool in agricultural production.

## *TO CONSERVE THE*

## *REMAINING PRAIRIE RESOURCE*

*Crop production dominates the moist, mixed grassland.*

*Strip cropping in the treeless expanse of the mixed grasslands.*

Further north, in the Parkland Ecoregion, aspen and brush encroachment continue to threaten idled grassland areas, particularly the rough fescue grasslands. Continued loss and degradation of these areas place wildlife and native

biological diversity at risk. Agricultural productivity is dependent on the sustainable use of resources such as soil, water, energy and nutrients. The conservation of biodiversity also depends on the sustainable use of remnant native areas, no matter how small. Although environmental sustainability in agriculture does not rely totally on maintenance of these areas, a truly sustainable agriculture will conserve and enhance natural resources and the quality of the environment for future generations.

### **Impediments to Conservation**

The major impediments to conservation of native prairie remnant areas (including wetlands) include:

#### ***1. Impacts on farm profitability***

- Wetlands, wetland margins and native prairie remnants can be seen as losses in agricultural production and are a cost to the farmer. Farmers attempt to maximize return/acre by farming all available land and making capital improvements through draining and farming wetlands, breaking headlands, ploughing native prairie, and clearing bush.

Unused and marginal lands represent a potential income to the farming operation (opportunity cost). The rate and extent to which these unused resources are developed depends on the inherent productivity of the land, climatic conditions and economic or “farmability” factors such as slope, stoniness, costs of development, location and potential use within the farming unit.

- Higher land costs and higher costs of production including changes to the Western Grains Transportation Act (WGTA) have increased pressure on farmers to crop available acreage with highvalue crops. This is particularly true for leased land where the renter attempts to maximize return per acre in a short period of time, often to the detriment of longterm agricultural sustainability.

#### ***2. Impacts on farm production and management***

- Headlands, bush and wetland margins are seen as sources of weeds, pests and diseases that may infest cropland. In fact, natural areas may provide increased protection from these forces.

- Large machinery size necessitates the move to larger, more uniform

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*Wetlands and prairie potholes in southern Saskatchewan are extremely important for migratory waterfowl and other species.*

<sup>1</sup> After Grudens-Schuck, N. 1996. Barriers to farmers re-establishing natural habitat on their land. Draft discussion paper, Federation of Ontario Naturalists. 27 pp.

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field size. Aspen bluffs, wetlands and poorly designed shelter-belts are often inconveniences and increase management costs for the farmer.

- The costs of preserving or restoring these areas and seeding them back to native perennial species is high and farmers often lack the time and expertise to accomplish the task.

### ***3. Loss of control of land resource and perceived risk***

- Many farmers fear that partnerships with government agencies or other groups that conserve or restore native areas will lead to an increase in depredation by waterfowl, big game or wild predators, or restrictions in agricultural use.

- Restrictions in the use of these areas for haying or grazing can be a major problem especially if the farmer is not involved in the management of these areas.

- There is an increased cost to the farmer if agencies responsible for management do not manage properly or devote sufficient resources to the task.

### ***4. Lack of incentives for preservation, restoration or management***

- Several government agencies and departments have in the past promoted and may still allow drainage, land breaking and bush clearing, sometimes with financial and technical assistance. These types of promotions can be at cross-purposes with activities and programs of other government

agencies and departments.

- Current taxation policies at the municipal, provincial and federal levels indirectly or directly subsidize or encourage drainage, land breaking and bush clearing.
- Tax assessment based on property value and agricultural productivity directs farmers to maximize production on arable acres and to increase arable acres.
- Traditional valuation procedures for land minimize the worth of wetlands, bush areas and remnant prairie areas. Often, organizations will pay more for land that is broken and cultivated than to preserve that same piece of land in its existing natural state.

***Objective 1: Identify and monitor the extent and health of the remaining native prairie.***

Acquire and interpret recent digital land cover and soil maps for the prairies of southern Saskatchewan. Using data on the occurrence of depression edge salinity, identify areas of high risk for drainage or destruction. Also identify which areas require protection from cultivation and those areas requiring restoration.

***Objective 2: Encourage voluntary landowner stewardship to conserve the remaining privately owned native prairie.***

- Develop a communication strategy.
- Support private stewardship programs that involve landowner extension work.
- Promote public education regarding prairie conservation.

***Objective 3: Fully explore the potential for the Conservation Easements Act to conserve the native prairie.***

In general, using Conservation Easements as a tool for conservation that excludes all other land uses is not sustainable or acceptable to

rural communities and must be examined in the context of the whole agro-ecosystem.

- Determine the types and levels of incentives required for native prairie conservation, restoration or management (paid easement or donated easement). Easements could be coupled with other programs or incentives.
- Determine valuation procedures for various types of Conservation Easements (CEs) (donated or paid) and for specific land use rights or restrictions in land use rights.
- CEs can be cumbersome and timeconsuming to implement. Develop protocols that simplify the process, agreements and valuation procedures.

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- Develop protocols on the monitoring of CEs, particularly in relation to donated easements and relationship to Revenue Canada's income tax provisions. Designated groups will need to devote adequate resources to enforcing and managing protected areas.
- Develop cost/benefit analyses for:
  - (a) CEs where only limited rights are granted and the landowner retains the majority of rights, for example, in the case of the preservation of wetlands and wetland margins and the landowner retains the right to farm the arable land;
  - and (b) CEs where the majority of rights are donated or given away.If within a CE agreement a landowner retains some rights, then the landowner has more of a vested interest in ensuring the viability of the CE and not reneging on obligations such as taxes.
- Management costs and perceived risks to the landowner will be reduced if landowners are involved in the management of areas protected under easements.
- Seek clarification to the Conservation Easements Act and Regulations as to whether provisions in the Tax Enforcement Act, specifically the right of municipalities to expropriate property for unpaid taxes, supersedes or takes priority

over a registered CE.

- Develop partnerships and networks with designated groups to facilitate CE work on various habitat types in Saskatchewan. For example, the Saskatchewan Wetland Conservation Corporation (SWCC) is partnered with the Nature Conservancy of Canada (NCC) to use CEs to secure native prairie. Groups interested in wetland preservation and restoration may wish to partner with Ducks Unlimited (DU).

**Objective 4: *Ensure that property taxation and assessment policies are at least neutral but, in the longer term, preferably favour the conservation of native prairie.***

- Determine the impact of existing tax assessment policies and land use ratings on the conservation of native prairie and other natural areas. Work to change taxation policies that encourage “development” of land or place an unrealistic value on parcels of undeveloped land.
- Determine the potential costs and benefits of implementation of a conservation land tax credit program and other income tax credits for conservation purposes.

**Objective 5: *Change regulations, policies, programs and economic instruments that are the most significant in terms of their negative impact on prairie conservation.***

Actions to achieve this objective include:

- promote adherence to provincial wetland policies;
- work to change regulations that are in conflict with stated government policies and laws;
- work with existing government agencies or groups to encourage more multiple-use projects and improved watershed management;
- promote the development of watershed

conservation and/or restoration plans and improve watershed management;

- promote on-farm conservation planning for conservation and enhancement of on-farm wildlife habitat and native biodiversity.

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### **Background and Rationale**

The diversity of living organisms is often used as an indicator of ecosystem health. As yet, comprehensive knowledge on the extent, condition and distribution of remaining native prairie in Saskatchewan is lacking, although, as the first PCAP report identified, substantive changes have occurred. It is known that losses to native prairie have been greatest in the Moist Mixed Grassland and Aspen Parkland Ecoregions while the Mixed Grassland and Cypress Upland Ecoregions have fared somewhat better. Breaking of the native sod and replacing it with agricultural crops is the primary reason for the reduction in the physical area of native prairie and its associated biological diversity. However, other more subtle changes have also impacted the life-forms of the prairies. The control of fire, the introduction of non-native species, overharvesting of species, climate change, wetland drainage, industrial developments and roads have all exerted effects.

The dramatic decrease in the extent of native prairie has been accompanied by the loss of biological diversity. Some species are known to have disappeared (e.g., Plains Wolf, Plains Grizzly, Black-footed Ferret, Swift Fox) while others have suffered severe reductions (e.g., Burrowing Owl, Sage Grouse). However, based on simple consideration of species-area relationships, many other less visible species (e.g., plants, insects) have probably also been extirpated. For example, a 90% reduction in area predicts that the number of species will be reduced by approximately 50%. The elimination of these species has effected changes in

ecological patterns and processes. The large herds of native grazers such as bison, elk and antelope have been replaced by domestic livestock. Domestic livestock grazing patterns differ somewhat from those of the native ungulates, resulting in differences in vegetation composition. The permanent changes that have occurred in Saskatchewan's native prairie, combined with the small amount remaining, are factors which must be considered in future management decisions if native biodiversity is to be maintained.

## *TOMAINAIN SASKATCHEWAN'S NATIVE PRAIRIE BIOLOGICAL DIVERSITY*

### ***Objective 1. Ensure that the remaining native prairie is protected from cultivation.***

Further losses of native prairie will result in a greatly accelerated loss of native biodiversity. Remaining native prairie under the control of the Crown should be maintained and conserved with appropriate management, perhaps in the same way that the United States maintains its "National Grasslands." The Government of Saskatchewan should consider the establishment of Provincial Grasslands, similar in nature to its already established Provincial Forests. The conservation of native prairie under private control should be encouraged, for example, with the help of Conservation Easements.

### ***Objective 2: Complete the Representative Areas Network in the prairie ecoregions.***

Representative areas of native prairie will maintain biodiversity and provide benchmarks by which to monitor and assess success at management elsewhere. Selection of areas which are truly representative is essential. Landscape features which combine a diversity of life forms must be identified and managed in a manner that

will allow the areas to be self sustaining. Such areas will then allow the assessment of impacts of human activities in other portions of the landscape and make modifications where necessary to maintain and enhance ecological integrity.

***Objective 3: Minimize the threat of introduced and invasive species to native prairie.***

Species such as Downy Brome, Purple Loosestrife and Knapweeds are highly competitive and invasive. Many such species are already threatening prairie ecosystems and have the potential to form monoculture communities to the exclusion of native species. Monitoring all species with the potential to invade is essential if the integrity of Saskatchewan's native prairie is to be assured.

***Objective 4: Pursue the restoration of degraded prairie ecosystems.***

Some prairie landscapes no longer support viable natural communities or have vegetation communities that are severely degraded. Identification of all such areas and implementing proper management or restoration to increase their ecological integrity is necessary if the overall objective of retaining Saskatchewan's natural prairie biodiversity is to be achieved.

***Objective 5: Encourage and support the development of indicators of native prairie health.***

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*Conservation of diverse landforms is essential to ensuring the maintenance of native biodiversity.*

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Ongoing monitoring is essential for success in maintaining both the biological diversity and the ecological diversity of the native prairie.

Monitoring all components of each ecosystem would be an impossible task but using appropriate species, communities, or other indicators that are sensitive to change, can provide an ongoing assessment of management

success.

**Objective 6: *Recover species and ecological communities at risk.***

Although the natural biodiversity of the native prairie has been irrevocably changed by the extinction of species, there are both species and communities that are at risk or already extirpated. These are the missing links to achieving the ultimate goal of rebuilding native biodiversity in the prairies. Recovery of these species and communities should be conducted in a manner that will allow them to be self-sustaining.

**Objective 7: *Improve our understanding of natural biodiversity.***

Communicating the meaning and importance of natural biodiversity is essential. Only through proper understanding by all members of our society can the maximum chance of success be assured. The communication mechanisms and processes to improve understanding must be sensitive to the diversity of means by which humans achieve their understanding, whether through scientific, traditional or spiritual means.

**Objective 8: *Minimize the impacts of industrial developments on native prairie.***

Human activities such as mineral development and building of roads and other transportation corridors have the potential to negatively influence native prairie. It is important that the impacts of these activities be minimized through careful planning and the appropriate application of new technologies.

*Industry is working to minimize its impact on the prairies.*

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**Background and Rationale**

Large patches of native prairie, located mostly in the southwest, have provided a base for cattle and livestock grazing and the ranching industry as a whole. It is reasonable to assume that ranching will continue

to provide the main income from native prairie in these areas. It is important to promote ranching and livestock production as economically and ecologically beneficial to native prairie conservation.

In contrast, the remnant native prairie that exists as small patches within a larger matrix of cultivated land has traditionally been viewed as wasteland. The majority of these areas are either ungrazed and underutilized (from an economic perspective) or they are a “dumping ground” for livestock and can be overgrazed. In either situation, their long-term persistence is threatened.

In addition to grazing, other sources of income from native prairie will fill niche markets and will likely be used to supplement the overall farm income. Promoting alternative uses of native prairie, such as provided by hunting and fishing, ecotourism, seed marketing and production, and potential biotechnological developments, can justify conservation on an economic level. There is also great potential to promote and market native prairie in terms of Saskatchewan’s history and heritage. Among the attractions of native prairie are:

- paleontological / cultural artifacts – (dinosaurs, First Nations culture, European establishment, ranching history);
- outdoor recreation (hiking / outback camping / trail rides / wildlife watching / hunting).

It is important that these uses of remnant prairie areas be undertaken without damaging native prairie ecosystems.

***Objective 1: Promote the economic advantages of good range management on remnant native prairie.***

It is important to aim information on economic advantages of good range management to those areas that are not dominated by ranching, and where less value is placed on

the benefits of sound range management.

*TOPROMOTETHE SUSTAINABLE USE  
OF NATIVE PRAIRIE TO ENHANCE  
THE QUALITY OF LIFE*

*Remnant native prairie used largely as pasture in the Moist Mixed  
Grassland Ecoregion.*

*Saskatchewan Prairie Conservation Action Plan*

***Objective 2: Identify and promote native prairie and its associated heritage resources as ecotourism destinations.***

Actions to achieve this objective must include specific consideration of native prairie within the provincial ecotourism strategy. Special attention should be directed towards promoting the ecologically sensitive development and use of native prairie.

***Objective 3: Encourage the development of native plant ecovars and a native seed production industry, including attention to wild-type seed production.***

There is a need to support and promote organizations with activities in this area. The United States Department of Agriculture (USDA), Ducks Unlimited and Agriculture and Agri-Food Canada are presently developing ecovars of several native plant species. A support system should be provided for groups and organizations for: (1) promoting the native plant and seed industry; (2) acting as a marketing agent for native seeds by linking producers and buyers; and (3) developing a registry of native prairie landowners who would allow seed collection on their land.

Increased research funding for ecovar development should be encouraged. Cooperation from the Canadian Seed Growers Association and other users of native seed should be encouraged to fund native seed research and development.

Ecovars and wild-type seed should be added to the Canada Seeds Act. Standards for seed certification, including purity and germination standards that are appropriate to native seed and their intended use should be developed.

Standards should be developed and promoted for the collection, production, and use of wild-type seed,

with consideration given to the interaction of where seed is collected, where it is grown and where it is used.

The use and production of wildtype seed should be promoted, especially where native biodiversity conservation is the central goal of restoration. Wild-type seed, collected and grown on sites similar in condition to the restored area, will provide the best opportunity to restore *Hikers on ecotour in Grasslands National Park*. indigenous genetic diversity of the plant community.

The development of key seed production sites, as determined by stakeholders such as the Native Plant Material Working Group, should be encouraged.

Reclamation regulations that require disturbed native areas to be restored to the pre-existing native plant community should be developed.

Regulating reclamation procedures will not only conserve native diversity, but also will increase market demand for native seed, in turn promoting expansion of the native seed industry.

***Objective 4: Advance the exploration of native prairie for new genetic, biochemical, pharmaceutical and other resources of potential use to humans.***

Ensure that part of any increase in the economic benefits derived from native prairie is used to support research and conservation. Develop regulations and management plans for the harvest of native prairie species whose populations are declining or at risk.

***Objective 5: Recognize and quantify the economic contribution of conserved native prairie and expanded perennial grasslands.***

Survey the literature regarding ecological services provided by native prairie, including carbon storage and sequestering, oxygen production, and nutrient cycling.

Coordinate this information gathering with other agencies, identify gaps in research, and communicate the findings. Work with other agencies to quantify the economic value of such services.

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*Many of the native plants, such as yarrow, were a source of traditional medicine.*

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### **Background and Rationale**

Public understanding of environment and resource-related issues is critical for successful conservation efforts. Education and communication at many levels are, therefore, major components of successful sustainable development programs.

Communication and education programs provide the means by which prairie conservation goals, objectives and methods can be imparted to citizens to permit full discussion.

Those programs are important among government, business and citizen groups at multiple levels: primary through post-secondary educational programs; local, First Nations, provincial and federal government levels; and among tourism, industry, agriculture, oil and gas, minerals and other sectors. Education is fundamental in ensuring that everyone understands basic issues. There are many perspectives and questions regarding the meaning of sustainable development and the role of conservation among the many different interests on the prairies. They reinforce the need to take a wideranging, pluralistic perspective on goals, practices, effects and expectations. Lessons from sustainable development highlight the importance of including local people in the planning, development and management of areas. The process of involving local communities is not easy.

Local people in the prairies are widely distributed over a large geographic area and may not necessarily be part of any established organization. Nonetheless, local residents must be involved in developing proposed conservation actions in order

to be able to evaluate those actions within the context of other options. Without active participation of local communities, residents may choose to use prairie resources in less sustainable ways. Education and communication activities in regard to prairie conservation must encourage the integration of information into daily behaviour.

**Objective: *Encourage the adoption of an ecosystem management approach to land across the prairie ecozone.***

Ecosystem management is a key approach to achieving sustainable development goals. It requires a shift in focus from the production of goods and services to sustaining the viability of ecological, social and economic systems that are necessary to deliver goods and services now and into the future. Ecosystem management is management-driven by explicit goals, executed by policies, protocols and practices, and made adaptable by monitoring and research based on our best understanding of the ecological interactions and processes necessary to sustain ecosystem structure and function.

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## *TO PROMOTE EDUCATION AND DEVELOP COMMUNICATION PROGRAMS REGARDING THE CONSERVATION AND SUSTAINABLE USE OF NATIVE PRAIRIE*

*Working with individual ranchers on range planning.*

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This objective requires the commitment of federal, provincial and municipal agencies, businesses and industries and all citizens to think, plan and act in terms of ecosystems. Numerous programs are already in place to facilitate the adoption of this objective. These include:

- the Saskatchewan Grazing and Pasture Technology Program

(GAPT) which provides information and demonstration of multiple uses of the rangeland resource;

- the Saskatchewan Wetland Conservation Corporation's Native Prairie Stewardship Program, Streambank Stewardship Program, and Wetland Restoration Seed Program;
- Nature Saskatchewan's Operation Burrowing Owl, Last Mountain Bird Observatory, Partners for Conservation Program and Summer Ecology Camp for Kids;
- the Saskatchewan Conservation Data Centre's Prairie Biodiversity Survey;
- SERM has developed with numerous partners environmental education programs for Saskatchewan schools including: Project WILD, an environmental education program integrated across the kindergarten through Grade 12 curriculum; Project SOILS, developed by SERM in partnership with the Saskatchewan Soil Conservation Association; Project WET, co-managed in Saskatchewan by SERM and the Canadian Water Resources Association;
- the Provincial Crown Land Leasing Program, Saskatchewan Pastures Program, PFRA pastures program;
- Great Sands Hills land use plan, and Manitou Sand Hills land use plan;
- Ducks Unlimited Canada's Prairie CARE Program which promotes soil, water, and wetland conservation through demonstrations of sound agricultural practices, incentives to alter agricultural practices, and securing critical waterfowl habitat;
- the Saskatchewan Soil Survey that provides information on the soil resources of the province and their use for agriculture;
- the Certificates in Agriculture Program of the Faculty of Agriculture at the University of Saskatchewan which provides a home study credit course in soil conservation;
- the Saskatchewan Soil Conservation

Association's Direct Seeding Manual that provides information on the management areas deemed most important for success in direct seeding in both minimum and zero tillage situations;

- the Saskatchewan Wildlife Federation's Wildlife Tomorrow program that works toward preserving habitat in its natural state for all species of wildlife and that recognizes landowners who set aside land for wildlife use;
- the Department of Fisheries and Oceans Fish Habitat in the Prairie Provinces Program that provides information on fish habitat in the prairie provinces – what it is, why it is important, its threats, and how it can be protected;

*Numerous government and non-government programs encourage and support prairie conservation.*

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- The Prairie Farm Rehabilitation Administration's Agricultural Shelterbelt Program that encourages prairie landowners to establish and maintain field, farmstead and wildlife shelterbelts for soil conservation, protection of crops and farmyards, and the enhancement of wildlife habitat. PFRA administers many programs that emphasize sustainable development objectives including the Permanent Cover Program and the Rural Water Development Program;
- the Saskatchewan Water Corporation's Erosion Control Assistance program;
- Saskatchewan Energy and Mines provides educational material through the Internet, for example on non-renewable resources such as oil and gas, electricity, base metals, and minerals for the prairie area;
- the Canadian Association of Petroleum Producers Guidebook for the Voluntary Climate Change

Challenge Program provides innovative ideas to improve training and education that are important for prairie petroleum producers; • the parks interpretive programs of Saskatchewan Environment and Resource Management, Grasslands National Park, and the National Park Historic Sites provide substantial education and communication opportunities to reach a wide audience. In addition to the above agencies and groups, there are numerous organizations whose mandates include education and communication regarding sustainable development and conservation for the prairies. The Saskatchewan Environmental Directory provides information on over 100 organizations involved in environmental communication and education. The large number and breadth of organizations is indicative of the diversity of interests focused on prairie sustainable development and conservation in Saskatchewan. All of these organizations perform a communication function to their respective constituents and a number have developed educational programs as part of their communication strategy. These organizations provide a core constituency within which to develop numerous actions to achieve this objective. A partnership needs to be developed that formulates and delivers a communication strategy that increases awareness of native prairie conservation and its use within the context of ecosystem management. The communications strategy will define the process and mechanisms necessary to develop and promote resource materials that illustrate the principles of prairie ecosystem management. Following the example of projects such as WILD, SOILS and WET, this development and promotion should include consideration

for integration into school curricula.

*Learning about burrowing owls.*

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### **Background and Rationale**

Conservation, in general, is a difficult concept on which to reach agreement and it is even more difficult to take action in a broad sense. Specific sites and issues are more likely to receive attention that will result in gains, than the large and somewhat amorphous “parenthood” issues that constitute conservation across a broad region like the prairies. Other factors work against ease of implementation as well. In such areas as the boreal forest, or arctic tundra, government is the largest land holder, and the landlord of record. In the prairies it is a very different story. Approximately one third of all the private land in Canada is found on the prairies. On a regional scale it is certainly one of the most “owned” landscapes in Canada. This pattern of settlement and ownership has been a blessing in some respects, in that the stewardship provided by several generations of ranchers and other livestock producers has helped to preserve the native prairie (as much as is found intact at this time).

Implementing conservation programs in the prairies requires working with a large number of private owners, lessees, rural and urban municipalities, the provincial and federal governments, First Nations, and a host of interest groups.

Conservation of the prairies is thus a more difficult challenge than in many other similarly scaled ecological regions in Saskatchewan or Canada.

### **Program Design Elements**

All implementation programs contain certain common elements. The 1998 Prairie Conservation Action Plan (PCAP) must also address some special elements demanded by the special circumstances of prairie society, land tenure, agricultural development, and fragmentation of native prairie.

1. To be effective, an implementation mechanism requires the dedication of resources to provide for an office and staff that can work with the multiplicity of agencies involved in the decision making processes underlying the accomplishment of the goals set out in this document.
2. Coordination among the many agencies involved, and with interest groups and the public, demands a steering group that can set out work plans, delegate responsibility, speak to needs with decision makers, and adjust the course of action as circumstances dictate.
3. Progress reports are essential if the whole group is to be kept involved, motivated, and up to date on priorities. Such reports must evaluate progress and serve as the basis for making decisions to prioritize specific actions or changes of direction as needed.
4. Communication of the goals, actions, progress, problems and need for action is required on an ongoing basis. The 1989 PCAP did not remain highly visible and its goals and actions were not influential in effecting prairie conservation. This PCAP must not suffer the same fate. A regular flow of information that supports the goals, reports on progress, and involves those who need or want to be involved is essential to success.
5. Public meetings, seminars, workshops, open houses, and other mechanisms to convey information, make decisions, obtain feedback, and adapt the course of implementation are required. PCAP needs to be foremost in the minds of people making decisions that affect the integrity of prairie ecosystems. A mechanism must be developed to allow the partners in this endeavour to come together and revitalize and realign their objectives and actions as required by the goals set out here.

# IMPLEMENTATION OF THE

# SASKATCHEWAN PRAIRIE CONSERVATION ACTION PLAN

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**Objective 1: *Develop a detailed implementation plan complete with budget and agency responsibilities.***

There can be no implementation program without adequate funding. Funding formulas can include commitments by participating groups, according to their abilities, as well as the seeking of grant funding, or the solicitation of donations to assist in making the program real.

**Objective 2: *Seek formal endorsement of the detailed implementation plan, and commitments to action from lead and supporting agencies.***

An essential ingredient for success in implementing the new Saskatchewan Prairie Conservation Action Plan will be having all lead and support agencies on side. This requires these agencies to recognize, in a formal way, the importance of the PCAP, and undertake to include the actions and resources required for full implementation of the Plan in their yearly budget and work plans.

**Objective 3: *Form a Steering Committee from the PCAP partnership to oversee the implementation phase.***

The partners who came together to produce this plan need to stay together to ensure its success. This can happen very simply by having an

ongoing steering committee that meets regularly and takes responsibility for overseeing the operation of an implementation office, and making the decisions needed to ensure that the plan meets its goals and objectives.

***Objective 4: Establish a home office for PCAP with a staff person to coordinate ongoing implementation activities among the partner groups.***

An office could perhaps be found at a subsidized rental in common with one of the partner groups, in a government building, or at one of the universities. Private office space may be donated as an “in kind” contribution by a supporting company or industry. Whatever the mechanism, an address, telephone, fax, and email connection to the world and a person or people to act as ongoing coordinators will be essential to success.

***Objective 5: Develop a communication program that keeps the PCAP alive in the minds of the public and in the budgets and programs of implementing partner organizations.***

A yearly communications plan will focus on the accomplishments of the partnership, and those actions requiring further work. It will provide information, analysis, insight, and seek input and participation in meeting the goals of the plan.

***Objective 6: Issue yearly updates or progress reports that outline the activities towards the achievement of PCAP goals and objectives, and reiterate necessary actions to ensure goals are met.***

A yearly progress report, whether by press release, letter to a mailing list, or in a report that is more or less formal will stimulate participation and

a sense of involvement and urgency in meeting the goals. Without this point of reference it will be too easy for the plan to fade from sight in the eyes of the public and the decision makers whose participation is required to make the Plan succeed.

**Objective 7: Organize local meetings, and broader regional or prairie-wide workshops and public information sessions to ensure the public knows about the goals and progress of PCAP.**

The success of the PCAP will ultimately rest in the hearts and minds of the people who live, work in and love the prairie ecoregion. Bringing people together in groups for discussion of specific issues, or for developing strategies in relation to the overall goals, is important in having the residents of the area take ownership of the ideas in the plan, making them their own values, and insisting that action takes place. With such support, and commitments from all levels of government to implement the goals, objectives and actions of this plan, success will be assured.

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## GLOSSARY OF TERMS

**Abiotic:** non-living; usually referring to rock, minerals, and non-organic parts of the natural environment.

**Biodiversity (Biological Diversity):** The variety, distribution, and abundance of different plants, animals and microorganisms, the ecological functions and processes they perform, and the genetic diversity they contain at local, regional or landscape levels of analysis.

**Biotic:** Of or relating to life and living beings.

**Ecological Integrity:** The quality of a natural, unmanaged or managed ecosystem in which the natural ecological processes are sustained, with genetic, species, and ecosystem diversity assured for the future.

**Ecoregion:** A subdivision of the ecozone (see definition below) characterized by distinctive large order landforms or assemblages of regional landforms, small order macro- or mesoclimates, vegetation, soils, water, and regional human activity patterns/uses.

**Ecosystem:** A dynamic complex of organisms (biota) – including humans – and their physical environment, which interact as a functional unit in nature. Ecosystems can vary greatly in size and range from completely natural, pristine conditions to those that have been heavily modified by humans.

**Ecosystem Management:** A management practice and philosophy aimed at selecting, maintaining and/or enhancing the ecological integrity of an ecosystem in order to ensure continued ecosystem health while providing resources, products, or non-consumptive values for humans.

**Ecovar ('ecological variety'):** A licensable plant species variety that is the result of the collection of plants from a diversity of populations and environments with the objective of providing a genetically diverse commercial seed source.

**Ecozone:** An area of the earth's surface representative of large and very generalized units characterized by interactive and adjusting abiotic and biotic factors.

**Native Prairie:** Native grassland and parkland aquatic and terrestrial habitats within the Prairie Ecozone of Saskatchewan (PCAP definition).

**Representative Areas Network:** A system of lands and waters which are designated and managed to represent and conserve Saskatchewan's ecological resources for current and future generations. Representative Areas act as both reservoirs of biological diversity and as benchmarks for comparison with more heavily utilized landscapes. (RAN Action Plan)

**Sustainability:** The ability of an ecosystem to maintain ecological processes and functions, biological diversity and

productivity over time.

**Sustainable Development:** A conceptual ideal where development meets the needs of the present generations without compromising the ability of future generations to meet their own needs.

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# THE SASKATCHEWAN PRAIRIE CONSERVATION ACTION PLAN COMMITTEE 8

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**OBJECTIVES**

(1) Maintain or adopt sound rangeland management practices that are reflective of local conditions.

(2) Foster an increased societal appreciation of the beneficial role played by the livestock industry in the conservation of native prairie.

(3) Recognize and support the efforts of private and public land managers who conserve native prairie in Saskatchewan.

# IMPLEMENTATION STRATEGY: GOAL 1

## *TO SUSTAIN A HEALTHY NATIVE PRAIRIE*

### *GRAZING RESOURCE*

#### **ACTIONS**

1. Continue, expand and extend programs that contribute to the proper management of rangeland.
2. Continue and speed up rangeland inventory and evaluation activities required for range planning on Crown land leases and Community Pastures.
3. Continue funding of the Grazing and Pasture Technology Program (GAPT) beyond March 2000.
4. Establish a mechanism for providing technical wildlife support to GAPT on an ongoing basis.
  1. Support programs that increase understanding of the role that management plays in the conservation of native prairie.
  2. Establish an annual "Prairie Appreciation Week"
  3. Encourage and promote orderly ecotourism as a window into ranching (e.g. technical assistance to interested ranchers, inclusion in tourism publications, marketing plan).
  4. Articles and features in urban newspapers.
  5. Support studies of native biodiversity in relation to rangeland health and ecological integrity.
  6. Create and publicize a high profile corporate/institutional award for outstanding contribution to the conservation of native prairie.
    1. Increase support for, and awareness of, environmental stewardship awards such as SSGA-Royal Bank TESAward, and Society for Range Management Stewardship Award.
    2. Resource Conservation Publication

#### **TIME TABLE**

January 1998-2002

(Plan by June 1998)  
Report to follow-up  
Committee by November,  
1998.

Details by March 1998  
January 1998 - March 2002  
(detailed plan by June  
1998)

January 1998-2002  
(detailed plan by March,  
1998)

December 1998

**L E A D** and *S U P P O R T I*  
*N G A G E N C I E S*

**Saskatchewan Agriculture  
and Food (SAF); Prairie Farm  
Rehabilitation Administration  
(PFRA).**

**Saskatchewan Stock Growers  
Association (SSGA), SAF,  
Agriculture and Agri-food  
Canada**

*GAPT, SERM*

**SSGA, SAF, GAPT, SERM**

**SSGA, Sask. Tourism, SERM**

*SSGA, GAPT, SERM*

*GAPT, Semiarid Prairie*

*Agriculture Research Centre*

*(Agriculture and Agri-food*

*Canada), U of Regina, U of*

*Saskatchewan, WWF, SERM*

**SERM, SSGA, SERM, GAPT,**

*energy corporations*

**SSGA, GAPT, DU, SWCC, SERM,**

*energy corporations*

**GAPT, SSGA, DU, SWCC, WWF**

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# IMPLEMENTATION STRATEGY: GOAL 2

## *TO CONSERVE THE REMAINING PRAIRIE RESOURCE*

### **OBJECTIVES**

- (1) Identify and monitor the extent and health of the remaining native prairie.
- (2) Encourage voluntary landowner stewardship to conserve the remaining privately owned native prairie.
- (3) Fully explore the potential for the Conservation Easements Act to conserve the native prairie
- (4) Ensure that property taxation and assessment policies are at least neutral but, in the longer term, preferably favour the conservation of native

prairie.

(5) Change regulations, policies, programs and economic instruments that are the most significant in terms of their negative impact on the conservation of prairie areas.

#### **A C T I O N S**

1. Acquire and interpret the recent digital land cover and soils maps for southern Saskatchewan
2. Identify areas of high risk for drainage or destruction.
3. Determine areas requiring preservation or restoration.
4. Utilize maps and map products as tools for landowner negotiation, extension and technology transfer.
  1. Develop a communication strategy.
  2. Support private stewardship programs that involve landowner extension work.
  3. Promote public education regarding prairie conservation.
    1. Determine the types and levels of incentives required for native prairie conservation.
    2. Determine valuation procedures for CEs and for specific land use rights.
    3. Develop protocols that simplify the process, agreements and valuation procedures for CEs.
    4. Develop protocols on the policing of CEs.
    5. Develop cost/benefit analyses for CEs.
    6. Seek clarification of CE Act and Regulations in relation to the Tax Enforcement Act.
      1. Determine the impact of existing tax assessment policies and land use ratings on conservation of native prairie. Change policies that encourage “development” of land or place an unrealistic value on unimproved land.
      2. Determine costs and benefits of a conservation land tax credit program and other income tax credit programs.
        1. Identify and prioritize those regulations, policies, programs and economic instruments that are most significant.
        2. Promote adherence to provincial wetland policies.
        3. Work to change regulations that are in conflict with stated government policies and laws.
        4. Encourage more multiple use projects.
        5. Promote the development of watershed conservation and/or restoration plans and improve watershed management.

#### **T I M E T A B L E**

December 1998

2000

2000

2000

Complete by April

1998.

Ongoing.

Ongoing.

Ongoing

Complete by

December 1999

Ongoing

**LEAD** and *SUPPORTI*

*NG AGENCIES*

**SERM, Saskatchewan Wetland**

**Conservation Corporation**

**(SWCC), Saskatchewan Conservation**

*Data Centre, Ducks*

*Unlimited Canada, Saskatchewan*

*Soil Resource Centre.*

**SWCC, GAPT, SERM**

**SWCC, GAPT, SERM**

**SWCC, GAPT, SERM**

**SERM, Ducks Unlimited**

*Canada, SWCC, Nature Saskatchewan,*

*Nature Conservancy,*

*World Wildlife Fund, Parks*

*Canada.*

**Saskatchewan Stock Growers**

**Association, SERM, SWCC.**

**Saskatchewan Stock Growers'**

**Association, SWCC, SERM, SAF.**

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## IMPLEMENTATION STRATEGY: GOAL 3

### *TO MAINTAIN SASKATCHEWAN'S NATIVE PRAIRIE BIOLOGICAL DIVERSITY*

#### **OBJECTIVES**

- (1) Ensure that the remaining native prairie is protected from cultivation.
- (2) Complete the Representative Areas Network in the prairie Ecoregions.
- (3) Minimize the threat of introduced and invasive species to native prairie.
- (4) Pursue the restoration of degraded prairie ecosystems.
- (5) Encourage and support the development of indicators of native prairie health.
- (6) Recover species and ecological communities at risk.
- (7) Improve our understanding of native biodiversity.
- (8) Minimize the impacts of industrial developments on native prairie.

#### **ACTIONS**

1. Obtain the Crown's commitment to maintaining native prairie under its control.
2. Promote the use of conservation easements to maintain native prairie on private lands.

1. Develop an implementation strategy.
2. Secure a network of areas which represent the natural biodiversity of the native prairie.
  1. Promote awareness of the threats of introduced species to native prairie.
  2. Investigate and promote methods to manage and control introduced species.
  3. Encourage the use of native seed mixes in permanent cover and restoration programs, along highways, and in cities and towns.
  4. Develop restoration guidelines which minimize the use of non-native species.
  5. Discourage the introduction of additional non-native species.
    1. Encourage the continued adoption of conservation tillage practices.
    2. Develop a long-term plan to increase the connectivity of native prairie areas at the landscape level with key restoration projects.
    3. Promote research which will refine restoration techniques.
      1. Convene a research and management group to complete the development of indicators.
      2. Implement a monitoring program based on the appropriate indicators.
        1. Ensure that species at risk legislation is implemented in an inclusive fashion, utilizing the best available scientific and local knowledge.
        2. Continue management efforts to restore species at risk.
        3. Ensure that the functions of the Saskatchewan Conservation Data Centre continue.
        4. Ensure that the functions of the Native Prairie Stewardship Program continue.
          1. Promote concepts of biodiversity through educational programs.
          2. Increase the coordination between agencies conducting research on native prairie.
          3. Respect the different ways of understanding including the scientific, local and traditional.
            1. Encourage industry to adopt less invasive technologies when working on native prairie.
            2. Encourage industry to minimize the number and extent of roads and other linear developments.

**T I M E T A B L E**

June 1998  
 Ongoing  
 January 1998  
 January 2001  
 Jan 1998 - Feb 2001  
 Ongoing  
 February 2001  
 February 2001  
 Ongoing  
 Ongoing  
 February 2001  
 Ongoing  
 January 1999  
 February 2001  
 January 1999  
 Ongoing  
 Ongoing

Ongoing  
 Ongoing  
 March 1999  
 Ongoing  
 Ongoing  
 Ongoing  
**LEAD and SUPP**  
**ORTING AGENCIES**  
*SWCC, conservation groups*  
**SERM, SWCC**  
**SERM**  
*SERM, DU*  
*All participants*  
*SERM, SAF, Agriculture and*  
*Agri-Food Canada (AgCan),*  
*Universities, GNP, SWCC*  
*SERM, SWCC, SAF, GNP*  
**SERM**  
*SERM, SAF, AgCan*  
*SAF, PFRA*  
*SERM, SWCC, GNP*  
*Universities*  
*GNP, SERM, SAF*  
*All participants*  
**SERM, GNP, universities**  
**SERM**  
**SERM, GNP, WWF, NCC, NS**  
**SERM**  
*SWCC*  
*All participants*  
*SERM, universities, GAPT,*  
*GNP, WWF, NCC, GNP*  
*All participants*  
**SERM, SAF, PFRA**  
**SERM, SAF, PFRA**  
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# IMPLEMENTATION STRATEGY: GOAL 4

## *TO PROMOTE THE SUSTAINABLE USE OF NATIVE PRAIRIE TO ENHANCE THE QUALITY OF LIFE*

### OBJECTIVES

- (1) Promote the economic advantages of good range management on remnant native prairie.
- (2) Identify and promote native prairie and its associated heritage resources as ecotourism destinations.
- (3) Encourage the development of native plant ecovars and a native seed production industry, including attention to wild-type seed production.
- (4) Advance the exploration of native prairie for new genetic, biochemical, pharmaceutical and other resources of potential value to humans.

(5) Recognize and quantify the economic contribution of conserved native prairie and expanded perennial grasslands.

#### **ACTIONS**

1. Target information flow to those areas that are not dominated by ranching, where less value is placed on the benefits of sound range management.

1. Include specific consideration of native prairie within the provincial ecotourism strategy.

1. Support and promote organizations with activities in this area.

2. Increase research funding for ecovar development.

3. Add ecovars and wild-type seed to the Canada Seeds Act.

4. Promote the use and production of wild-type seed, especially for use where biodiversity conservation is the central goal of the restoration process.

5. Develop reclamation guidelines that require disturbed native areas to be restored to the pre-existing native plant community.

1. Ensure that part of any increase in the economic benefits derived from native prairie goes to support research and conservation.

2. Develop guidelines and management plans for the harvest of native prairie species whose populations are at risk.

1. Survey the literature regarding ecological services provided by grasslands, including carbon sequestering, oxygen production, and nutrient cycling.

2. Coordinate this information gathering with other agencies, identify gaps in research, and communicate the findings.

#### **TIME TABLE**

Ongoing

Ongoing

Ongoing

Ongoing

December 2002

Ongoing

2002

Ongoing

Ongoing

February 2000

January 2000

**LEAD** and *SUPPORTI*

*NG AGENCIES*

**SWCC, GAPT, SERM**

*SWCC, DU, SERM,*

*SaskTourism*

*DU, Agriculture and Agri-food*

Canada (AgCan), SAF, Saskatchewan  
Native Plant Society  
DU, SAF, AgCan  
AgCan, Canadian Seed  
Growers Association  
DU, SWCC, GAPT  
**SERM, SWCC, DU, SAF**  
Saskatchewan Native Plant  
Society, SAF  
SERM, Saskatchewan Native  
Plant Society  
SWCC  
SWCC, Saskatchewan Native  
Plant Society  
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# IMPLEMENTATION STRATEGY: GOAL 5

## *TO PROMOTE EDUCATION AND DEVELOP COMMUNICATION PROGRAMS REGARDING THE CONSERVATION AND SUSTAINABLE USE OF NATIVE PRAIRIE*

### **OBJECTIVES**

(1) Encourage the adoption of an ecosystem management approach to land across the prairie ecozone.

### **ACTIONS**

1. Create a partnership that facilitates the exchange of information regarding the conservation of native prairie.
2. The partnership formed through Action 1 will develop and deliver a communications strategy that increases awareness of native prairie conservation and its sustainable use within the context of ecosystem management.
3. The communications strategy will define the process and mechanisms to develop and promote resource materials that illustrate the principles of prairie ecosystem management.

### **TIME TABLE**

Formal Committee to be established by April 1998.  
Develop communications strategy by September 1998 with proposal for implementation plan.  
Initial publication on ecosystems available by April 1998; initial ecosystem management publications by August 1998. Ongoing activities to be defined in the communications strategy.

**LEAD** and *SUPPORT*

NG A G E N C I E S

*University of Regina, University of Saskatchewan, PFRA, SWCC, Nature Saskatchewan, SERM, WWF*

**Nature Saskatchewan** *As above and including Saskatchewan Stock Growers Association, Saskatchewan Agriculture and Food, SERM, SWCC and Ducks Unlimited*  
**SERM, The Prairie Ecosystem Sustainability (PECOS) Study of the University of Saskatchewan and the University of Regina, others as above.**

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# IMPLEMENTATION OF THE SASKATCHEWAN PRAIRIE CONSERVATION ACTION PLAN

## OBJECTIVES

**Objective 1:** Develop a detailed implementation plan with budget and agency responsibilities.

**Objective 2:** Seek formal endorsement of the detailed implementation plan, and commitments to action from lead and supporting agencies.

**Objective 3:** Form a Steering Committee from the PCAP partnership to oversee the implementation phase.

**Objective 4:** Establish a home office for PCAP with a staff person to coordinate ongoing implementation activities among the partner groups.

**Objective 5:** Develop a communication program that keeps the PCAP alive in the minds of the public and in the budgets and programs of implementing partner organizations.

**Objective 6:** Issue yearly updates or progress reports that outline the activities towards the achievement of PCAP goals and objectives, and reiterate necessary actions to ensure goals are met.

**Objective 7:** Organize local meetings, and broader regional or prairie-wide workshops and public information sessions to ensure

the public knows about the goals and progress of PCAP.

### **ACTIONS**

1. Confirm funding sources and amounts.
2. Develop and approve an annual budget.
3. Confirm agency participation.
  1. Transmit PCAP formally to each lead and supporting agency.
  2. Seek a formal commitment to the action items.
    1. Hold a founding meeting.
    2. Develop a general "constitution" and "rules of order."
    3. Set a schedule for ongoing meetings.
      1. Determine suitable space and location.
      2. Furnish office as required.
      3. Hire staff member(s).
      4. Develop annual work plans.
        1. Develop a yearly communications plan.
        2. Release materials on accomplishments and issues as required in press releases.
        3. Develop a newsletter and other public information materials.
          1. Hold a yearly press conference to outline progress, issues, and problems areas.
          2. Investigate the opportunity to circulate a yearly review of progress and problems.
            1. Organize meetings as required to deal with local or regional issues.
            2. Investigate the opportunity to hold a yearly seminar, workshop or conference.

### **TIME TABLE**

April/May 1998  
April/May 1998  
April/May 1998  
June/July 1998  
July/August 1998  
February 1999- 2003  
As needed

**LEAD** and *SUPPORTING*  
*AGENCIES*

**PCAP COMMITTEE**  
**PCAP COMMITTEE**  
**PCAP COMMITTEE**  
**PCAP COMMITTEE**

**IMPLEMENTATION**  
**COORDINATOR**  
**IMPLEMENTATION**  
**COORDINATOR**  
**IMPLEMENTATION**  
**COORDINATOR**