



alberta prairie conservation

[2011 - 2015]

ACTION PLAN

Landscapes sustain,
heal and provide spirituality...

Johan F. Dormaar, 1930 – 2011

The Prairie Conservation Forum wishes to thank:



- Members of the Prairie Conservation Forum for the photos used in this plan.
- Alberta Tourism, Parks and Recreation (Parks Division) and the Multiple Species at Risk Program (MULTISAR) for providing financial support to design and print this document.
- The PCAP team: Bill Dolan, Ian Dyson, Dug Major, Don Watson, Dr. Cormack Gates, Neal Wilson and Tania Sprong-Hanna.

Government of Alberta ■



This report may be cited as:

Prairie Conservation Forum. January 2011. Alberta Prairie Conservation Action Plan: 2011-2015. Published by the Prairie Conservation Forum, Lethbridge, Alberta. 28 pages.

Copies of this report may be obtained from:

*Prairie Conservation Forum
2nd Floor, Provincial Building
200 – 5th Avenue South
LETHBRIDGE, Alberta
T1J 4L1*

This report may be viewed on the Internet at:

<http://www.albertapcf.org>

ISBN No. 978-0-9811864-7-4 (printed)

ISBN No. 978-0-9811865-8-1 (on-line)

This publication has been printed in Canada on recycled paper.

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The disappearance of a major natural unit of vegetation from the face of the earth is an event worthy of causing pause and consideration by any nation. Yet so gradually have the grasslands been conquered by the breaking plow, the tractor, and the overcrowded herds of man, and so intent has he been upon securing from the soil its last measure of innate fertility, that scant attention has been given to the significance of this endless grassland or the course of its destruction. Civilized man is destroying a masterpiece of nature without recording for posterity that which he has destroyed.

Before the western grasslands disappear as gradually and completely as have those of the east, let us follow the judicious plan of the conservationists in the great prairie state of Iowa and preserve some representative tracts forever for ourselves and for posterity.

Nature is an open book for those who care to read. Each grass-covered hillside is a page on which is written the history of the past, conditions of the present, and predictions of the future. Some see without understanding; but let us look closely and understandingly, and act wisely, and in time bring our methods of land use and conservation activities into close harmony with the dictates of nature.

The grassland itself is an intricately constructed community.

The grassland itself is an intricately constructed community. The climax prairie vegetation is the outcome of thousands of years of sorting of species and adaptations to soil and climate. Grassland soils through untold centuries have been thoroughly protected by the unbroken mantle of prairie vegetation. The vegetation, animals and soil are closely related, intimately mixed, and highly interdependent upon each other and upon the climate. Hence grassland is much more than land covered with grass. It is a slowly evolved, highly complex organic entity, centuries old. It approaches the eternal. Once destroyed, it can never be replaced by man. ”

- From J.E. Weaver, North American Prairie, Johnsen Publishing, Lincoln, NE 1954



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Minister's Foreword

Alberta is home to cattle on the range; wetlands critical for North American waterfowl; the fastest land mammal in the New World, the pronghorn antelope; and the wide-open prairie that stretches out beneath Alberta's big, blue skies.

These iconic emblems of our western heritage and Alberta's early agricultural settlement continue to thrive in our growing province.

Alberta growth is increasing demand for our resources and putting pressure on our air, land, water, biodiversity, and communities. The challenges of sustaining a level of environmental protection that supports a high quality of life for Albertans means we all have a role to play in finding adaptable and resilient solutions for our prairie and parkland ecosystems.

For future generations to also experience vibrant cities, working farms and ranches, clean air and water, and thriving native species, we need to work together to ensure these legacies endure.

This work is happening. For more than 20 years, provincial and federal departments, non-government organizations, and industry have

been working together on the Prairie Conservation Forum.

The 2011-2015 Prairie Conservation Action Plan is a renewed, high level blueprint for action. The specific biodiversity outcomes identified – including maintaining large native landscapes and conserving connecting corridors and smaller, disconnected native habitats – will be considered during the development of regional plans and management plans for conservation.

This strategic shift also reflects the cumulative effects management and regional planning shift taking place within the Government of Alberta. As Minister of Environment, I am committed to supporting this plan while at the same time implementing a cumulative effects management system: an outcomes-focused, environmental approach to manage the cumulative environmental impacts of all development in our province.

Cumulative effects management provides environmental assurance by setting measurable environmental thresholds. When this system is applied at the local, sub-regional, regional and provincial levels, it provides assurance to Albertans that the province's environmental outcomes are set and met.

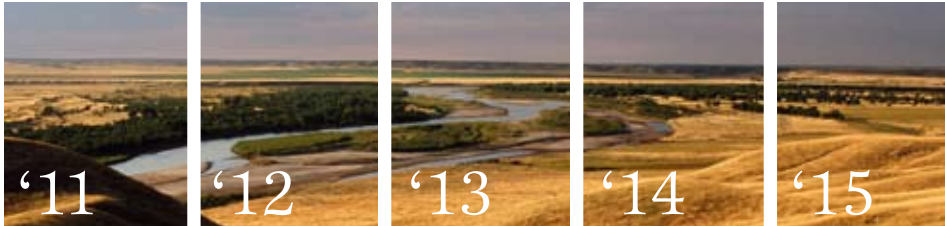
I applaud the Prairie Conservation Forum for its enduring commitment to the conservation of Alberta's native prairie and parkland environments, its inclusive approach of involving all interests, and for aligning this renewed action plan to support the Government of Alberta's implementation of environmental cumulative effects management.



Hon. Rob Renner
Minister of Environment



Preface



Conservation of grasslands and their native species has surfaced as one of the signature conservation priorities of America's mid-continent as witnessed by the variety of continent-wide conservation initiatives (such as joint ventures in the North American Bird Conservation Initiative (NABCI), North American Waterfowl Management Plan (NAWMP) and Partners in Flight to cite some examples). As has been pointed out by many wildlife experts, the steady decline of many grassland bird species is a clear indicator of the condition of our grasslands and highlights the urgency to act. As time goes on, a growing number of species are in trouble or on the brink of extirpation or extinction. The Temperate Grasslands Conservation Initiative Symposium held in Argentina in February 2010 declared that temperate native grasslands require urgent and targeted action to protect, maintain and restore their many valuable social, cultural, economic and ecological services – which sustain human life and well-being.

With the conclusion of the 2006-2010 Prairie Conservation Action Plan (PCAP), the Alberta Prairie Conservation Forum (PCF) continues to see its role as an organization that can foster a sense of shared responsibility for the conservation of native biodiversity and prairie grasslands. Indeed, since the late 1980's, when the first Alberta PCAP was adopted, various strategies have been put into place that reflect the ongoing hard work of many organizations that are committed to good stewardship. Over the last three decades one only has to look at the petroleum industry and the livestock industry to witness the steady improvement in good management which is being put into practice. But

there are still issues that confront native prairie grasslands and the PCF has played a part promoting awareness of impacts on the ecological integrity of grasslands. Positive changes in stewardship have been brought about through the activities of PCF member organizations, but at the heart of PCF activity has been the enduring commitment to those values that have served us well over the years: the guiding principles of pursuing a conservation ethic, mutual respect and openness to all interested stakeholders, and a commitment to developing partnerships.

In the past, the PCF relied heavily on the collective activities of its membership to accomplish measurable and worthwhile conservation actions in the PCAP. While this provided a framework for PCF partners to be engaged toward common conservation outcomes, it has been difficult to link all of those to larger biodiversity outcomes in the prairie and parkland. The new PCAP endeavors to identify those biodiversity outcomes and link them to spatially explicit results on the landscape.

Changing times and a range of new and emerging challenges have put the onus on the new Alberta PCAP to be adaptive, strategic and action oriented. The development of a Land-use Framework in Alberta and new ideas around cumulative effects management represent a 'made in Alberta' opportunity for grassland and parkland conservation. The PCF believes that this is the moment to adopt an innovative approach and pursue a new strategic vision that is appropriate for the times.

To that end, the Alberta PCAP 2011-2015 work team has provided strategic leadership and has spent many months

preparing a plan that represents an important departure from earlier PCAP versions. Specifically, the new PCAP will focus on actions that will foster stronger connections and enhanced opportunities for the exchange of relevant information by the public and private sectors that will in turn promote tangible conservation outputs. The PCF will be taking an active role in this initiative. Each initiative in this Plan will be linked to the broad outcomes of: maintaining large native prairie and parkland landscapes; conserving connecting corridors for biodiversity; and protecting isolated native habitats. These broad outcomes will be spatially explicit and thus provide real opportunities for conservation action on the landscape.

The development of the latest plan has taken many hours and has required the vision and dedication of many people associated with the PCF. Implementing the new plan will require the concerted efforts and energies of the PCF Board of Directors and Forum members. The upshot of this plan represents not the end of a process as much as it does a new beginning.

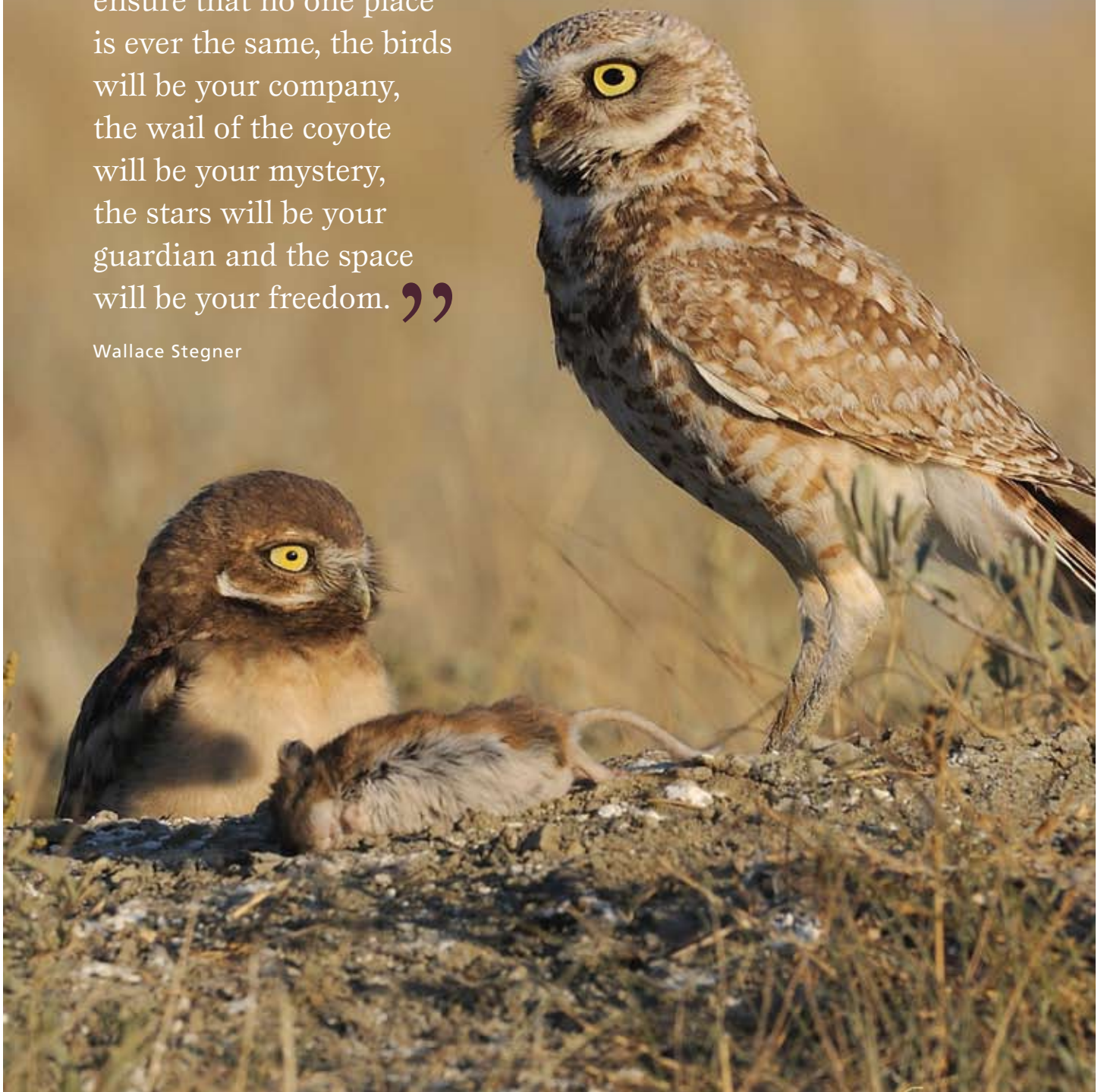
There are many people that have had a key role in the development of this plan and I would like to take this opportunity to recognize a few of them; PCAP team chair, Bill Dolan, and team members Tania Sprong-Hanna, Neal Wilson, Dr. Cormack Gates, Dug Major, Don Watson, Ian Dyson, all who are to be thanked for their tenacity and commitment to see this project through to completion. A special thanks goes to Sam Wirzba and Louella Cronkhite for their review and edit suggestions on the final draft. I think this plan will be a point of pride for all PCF members and Albertans who appreciate and value native prairie grasslands and parklands.

Don Watson

2009-2010 Chair
Alberta Prairie Conservation Forum

“Take the time to explore;
the wind and sky will
ensure that no one place
is ever the same, the birds
will be your company,
the wail of the coyote
will be your mystery,
the stars will be your
guardian and the space
will be your freedom.”

Wallace Stegner



Alberta's Native Prairie Landscape

Alberta's native prairie and parkland landscapes are the most northerly extensions of the North American Great Plains. (Figure 1)

Extensive tracts of public and private rangelands in east central and southern Alberta and the Palliser Triangle are home to a largely intact native mixed-grass prairie ecosystem that we share with our neighbors in Saskatchewan, Montana and beyond (Figure 2). The ecological processes and wildlife populations which are part of this larger grasslands system transcend jurisdictional borders.

Native prairie is a fundamental economic and social resource on which the ranching community depends. Ranching provides a unique livelihood and lifestyle, makes a significant

contribution to the provincial economy, and can be compatible with preserving native prairie over time. The ranching community assumes a large responsibility in maintaining our native prairie and parkland landscapes, and it is the stewardship ethic of many ranchers that will be instrumental in the future conservation of our grasslands environments.

Prairie and parkland landscapes have significant heritage value and provide ongoing ecological, cultural, and economic benefits for all Albertans. Together, sustaining the ecological function of native landscapes throughout the eastern slopes and in prairie and parkland Alberta provide the greatest long term assurance of environmental quality for its citizens.

Fostering a stewardship ethic amongst all users of native prairie rangelands is critical to the success of prairie conservation efforts in Alberta. It will demand an enlightened understanding of ecological and economic relationships and an ability to resist persistent pressures to fragment land and intensify land use for short-term economic gains.



Strategic Issues

Biodiversity, Environmental Quality and Human Values


If the Prairie Conservation Forum (PCF) members and our broader society want to retain high quality prairie and parkland environments, then retaining native biodiversity is a prerequisite. Promoting the conservation of biological diversity in prairie and parkland ecosystems has been the *raison d'être* of Prairie Conservation Action Plans (PCAP) since the first prairie-wide PCAP was released in 1988. Achieving environmental quality in our airsheds, watersheds and on our landscapes is inextricably linked to and necessitates the preservation of native biodiversity. Biodiversity is the variety of life in all its forms and functions. It is the lifeblood of ecosystems. Functioning ecosystems provide a suite of ecological services (i.e., clean air, clean water, carbon storage, building up of soils, nature-based recreation, processing of wastes, etc.) that support a healthy environment and our quality of life. If our society values a healthy environment, then sustaining native biodiversity must continue to be the most important environmental priority.

Conserving native prairie biodiversity is not just about 'the business case for maintaining ecosystem functionality'. It's also about providing the things that Albertans cherish and value. Being one of the Prairie Provinces has helped define what Alberta was and has become. From whisky traders to Mounties to railway and telegraph lines; to settlement, drought, war, depression and industrial agriculture - the prairie settlement story is a kaleidoscope of experiences that have

swung between privation and prosperity.

The prairies are the home of the Palliser Triangle, the family farmstead, King Wheat, suffragettes, the social gospel, farm and labour movements, the Dirty Thirties, agricultural science, universal health care, and a succession of populist revolts and reform movements on all sides of the political spectrum. The number of families, farms, grain elevators and railway tracks have both soared and plummeted. The prairies have been an economic nightmare and an engine of prosperity. Prairie Canada has yielded some of the country's finest writers, painters and politicians. Of course people have shaped the prairies, but we have also been shaped by them - vast expanses of space, extremes of heat and cold, drought and fertility, meadowlarks singing and antelope running under the biggest sky anywhere.

Is not our sense of who we are defined by what we experience in the places where we live our lives? Do we currently value, really value, our prairie landscapes - our home place? Do we want future generations to have the opportunity to also experience and benefit from the prairie landscape that we enjoy today? Do we want our children and grandchildren to experience vast tracts of open prairie, coulees and badlands topography, minimally disturbed grasslands, prairie wilderness, green needle grass, ferruginous hawks, Sprague's pipits and burrowing owls?



Is not our sense of who we are defined by what we experience in the places where we live our lives?

Contemporary Challenges



Previous Alberta PCAPs have chronicled and sought to address some of the threats to landscape integrity in Alberta's prairie and parkland environments, including: urban expansion and rural subdivision development, driven by population growth and increasing affluence among Albertans who are seeking a country lifestyle; agricultural land conversion as new markets for specialty crops appear, such as potatoes grown on sandy soils; intensified resource extraction of depleting conventional oil and gas reserves as energy and commodity prices increase; and the eradication of introduced species which are invading native landscapes along river corridors and linear disturbances. All of these pressures are continuing unabated and have been joined by a suite of new land use challenges: the development of wind farms on exposed prairie ridges; feedlot expansion and cropland intensification; and non-conventional gas development to exploit coalbed methane or shale gas associated with the vast ancient coal reserves underlying Alberta's prairie and parkland landscapes.

Perhaps more fundamentally, the socio-economic context which has characterized the recent past is changing. Since the events of 9/11 and the BSE (bovine spongiform encephalopathy) threat, open borders with other countries are no longer taken for granted. The recent global financial crisis and the sluggish economic recovery that has followed have created a situation in which entrepreneurs are trying to generate quick economic activity. The desire to expand and maximize value-added industries and to develop new markets continues to grow in Alberta. In an uncertain geopolitical world, declining conventional energy supplies and rapidly emerging industrialized economies are bringing the vulnerabilities of our carbon-based economy into sharp focus. But before the future "post-carbon" economy can fully assert itself, the current carbon economy must run its course. In this regard, Alberta has risen to become a short to medium-term nexus for North American energy security. And finally, if changes occur to the climate, the potential implications for both human uses and native ecosystems on the prairies could be profound.

Threats to landscape integrity include:

- Urban expansion
- Agricultural land conversions and intensification of use
- Introduced species
- Development of energy resources including wind, coal and natural gas
- Climate change uncertainty

Governance Trends



The provincial government is shifting towards integrated environmental management using partnership-based systems and place-focused approaches.

Approaches to environmental management and governance in Alberta have undergone a profound shift in recent years.

Sector-specific provincial government strategies, such as the Clean Air and Water for Life strategies, have begun to shift our focus to place-based outcomes and partnership approaches. There are various partnerships interested in environmental outcomes in prairie and parkland Alberta, including watershed planning and advisory councils, airshed zones, the Crown Managers Partnership, the Foothills Restoration Forum and various community-based initiatives.

The government of Alberta continues to promote integrated and sustainable approaches to resource and environmental management through Ministry business plans, the Premier's Ministerial Mandate letters and through inter-agency commitments to

work together to achieve agreed-upon natural resource and environmental management outcomes. The provincial Land-use Framework, released in December 2009, signaled a substantially new approach to land use and environmental management. The LUF states, "We have reached a tipping point where sticking with the old rules will not produce the quality of life we have come to expect" (p.2, Land-use Framework, Government of Alberta, Dec 2008). The Land-use Framework signals a commitment to manage growth, and to balance economic, social and environmental goals through a new regional planning approach. Seven regional plans will, among other things, address the cumulative effects of new developments against geographically defined environmental outcomes. This in turn will limit the effects of development on air, land, water and biodiversity. New

provincial legislation, the Alberta Land Stewardship Act, has been adopted (proclaimed October 1, 2009) to give the new Land-use Framework teeth.

Three of the regional plans, the South Saskatchewan, Red Deer and North Saskatchewan regional plans will define environmental outcomes for prairie and parkland Alberta.

In response to these shifts in environmental governance, this PCAP provides a fundamental shift from a "goals-objectives-actions" framework to one that focuses on defined biodiversity outcomes. This new PCAP framework should fit well with the work other partnerships are doing, Alberta's Land Use Framework, the regional plans which are being developed, and Alberta's evolving Cumulative Effects Management System.



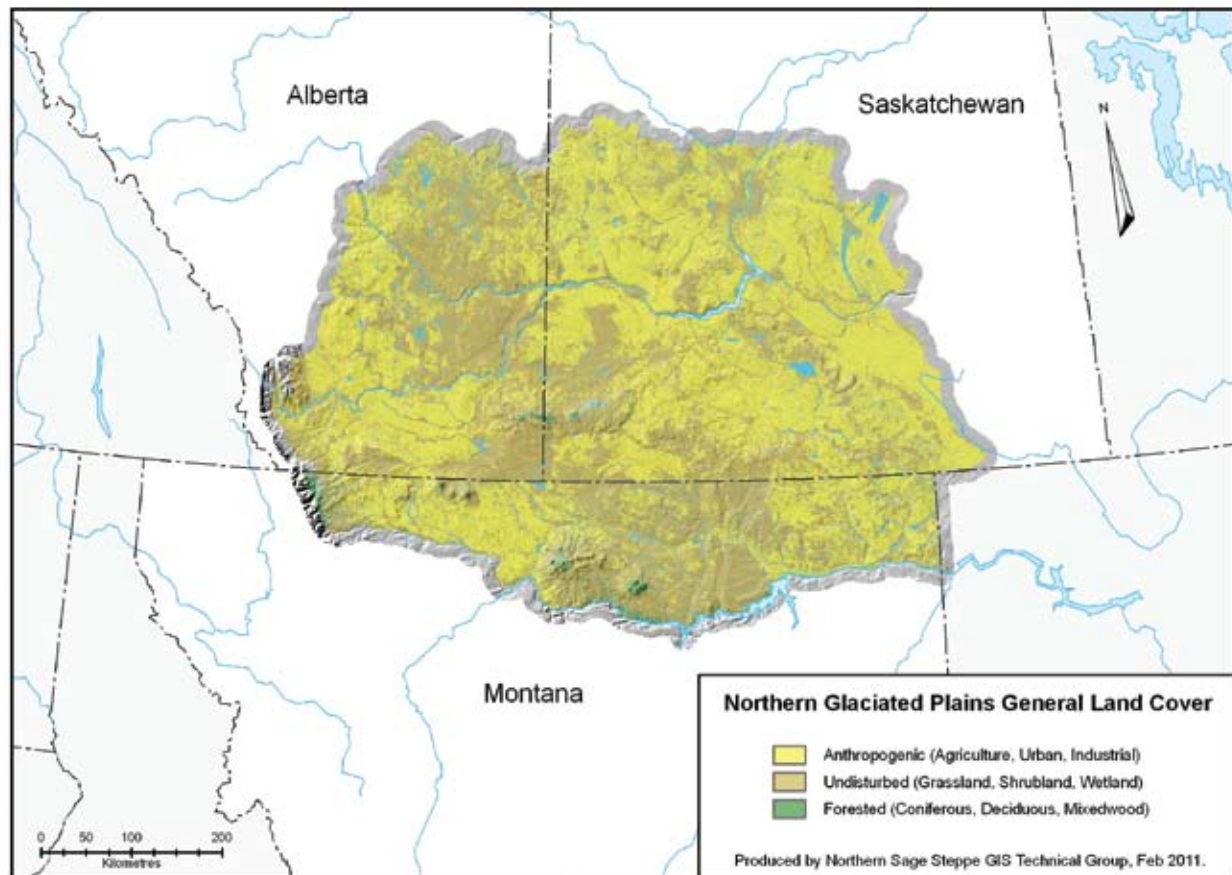
History of a Prairie Conservation Strategy

The first Prairie Conservation Action Plan (PCAP) was released by the World Wildlife Fund – Canada and the provincial governments of Manitoba, Saskatchewan and Alberta late in 1988. It was a five-year blueprint (which concluded in 1994), aimed at prairie-wide efforts to conserve and manage native prairie species, communities, and habitats.

The Prairie Conservation Forum (originally named the Prairie Conservation Coordinating Committee), was established in 1988 by the Government of Alberta in response to the original PCAP. The PCF has grown over the last 22 years, and today is comprised of some fifty member organizations. These organizations represent all three levels of government, non-government organizations, industry, academia, and agricultural and environmental interest groups.

Following the conclusion of the first prairie-wide PCAP in 1994, provincial successor PCAPs were developed in Alberta, Saskatchewan and Manitoba. The Alberta and Saskatchewan PCAP groups continue to remain active today. The 2011-15 PCAP is the fifth generation offspring of the original PCAP. The roots of commitment to prairie conservation go deep and are enduring in Alberta, sustained by the ongoing work of the PCF and other like-minded organizations and individuals. The Prairie Conservation Forum continues to exist to promote the conservation of native biodiversity in prairie and parkland environments in Alberta and to provide an ongoing profile for prairie and parkland conservation initiatives.

Figure 2:
Northern Glaciated Plains General Land Cover



“Grasslands challenge our senses, calling us to open our eyes to impossibly broad horizons and then, in the very next breath, to focus on some impossibly tiny critter hidden in the grass.”

Candace Savage

Strategic Direction

VISION

The biological diversity of native prairie and parkland ecosystems is secure under thoughtful and committed stewardship of all Albertans.

MISSION

The Prairie Conservation Forum is open to all organizations that support and have an interest in achieving the PCAP Vision and who are willing to apply the PCF's Guiding Principles. The Vision will be achieved by:

- **defining** desired biodiversity outcomes and measuring progress towards outcomes;
- **acquiring** and sharing data, information and knowledge;
- **advancing** understanding and increasing awareness of the native prairie and parkland landscape and its interdependence with the social and economic needs of society;
- **collaborating** to enhance the conservation and compatible use of native prairie and parkland landscapes; and
- **maintaining** the stability and building the capacity of the Prairie Conservation Forum.



GUIDING PRINCIPLES

1. Management responsibilities for native prairie and parkland fall primarily on public agencies (i.e., Federal, Provincial and Local Governments), First Nations and private landowners. The PCF will only support and facilitate discussions concerning actions that contribute positively to the Vision and Mission of the PCF.
2. The PCF will facilitate networking, information exchange and discussion amongst member organizations and with other jurisdictions outside of Alberta.
3. Partnership activities are based on the belief that the social and economic benefits which are derived from prairie and parkland ecosystems are dependent on the ecological health of these systems. Therefore, management strategies will be promoted that ensure the ongoing health of these ecosystems.
4. The PCF Partnership draws together diverse opinions and approaches to ecosystem management. To best ensure the development of collaborative and effective solutions, the Partnership will interact in a manner that is respectful of that diversity.
5. PCF members will strive to implement PCF programs and activities in their respective organizations in support of the PCF Vision.
6. The Vision can only be achieved by the efforts of many, including the PCF itself and its member organizations, accompanied by effective working relationships with others who share the vision.
7. The PCF supports the equitable sharing of social and economic costs and the benefits of maintaining native biodiversity and ecological services among all segments of society.

OUTCOMES

The Prairie Conservation Forum believes that the PCAP Vision will only be realized if important **strategic or long-term** environmental outcomes can be achieved. These outcomes must be closely linked to management and planning decisions by all levels of government and private land owners. These outcomes are closely connected to existing functional ecosystems in prairie and parkland Alberta (Figure 3). Three long term outcomes will be the focus of the PCF.

Maintain Large Native Prairie and Parkland Landscapes

The existence of intact and fully functioning native prairie and parkland landscapes in Alberta are the best guarantor of future regional biodiversity and environmental quality.

These open spaces provide ecological goods and services such as carbon storage, clear air and water, as well as outdoor recreation, nature enjoyment activities and hunting and fishing opportunities that enhance our quality of life. They are also home to families and ranching communities that have frequently proven themselves to be faithful stewards of the environment, and as such have become icons of western Canadian society. In the first half of the 1900s, during the time of western expansion and settlement, large tracts of native prairie were ploughed by pioneers who were homesteading on native prairie and parkland landscapes in Alberta as required by the homestead act of the times. As a result of the massive landscape changes associated with the settlement period, we have inherited a diminished biodiversity, and the native biodiversity which currently exists is frequently under threat. For example, over 75% of Alberta's species at risk, including Greater Sage-grouse, Burrowing Owls, Sprague's Pipit, Ferruginous Hawk,



Swift Fox, Western Silvery Minnow, Short Horned Lizard, and the Western Spiderwort, are associated with prairie environments. Their decline is largely due to these landscape changes. Alberta's remaining native landscapes are an integral component of a much larger continental ecosystem. The maintenance of large native landscapes, whose integrity has not been compromised, affords society a greater range of options in the future and will help us to better withstand the anticipated climatic changes, including increased variability of drought and flooding, that have been forecast for the future.

Conserve Connecting Corridors for Biodiversity

Habitat connectivity is essential to maintain native biodiversity and ecosystem function. The conservation and restoration of important corridors will help to maintain functional native prairie and parkland landscapes.

The overwhelming majority of our native prairie and parkland landscapes are fragmented, and in some areas the connectivity within and between ecosystems has been severed, creating habitat islands. This has the effect of isolating genetic communities, causing species decline or extirpation from traditional ranges, and reducing native biodiversity. The Greater Sage-grouse, which once ranged north of the Red Deer River, is now confined to a small geographical area to the south of the Cypress Hills and is facing rapid population decline (some experts say imminent extirpation) within Alberta. The Greater Sage-grouse has become a casualty of land fragmentation associated with increasing industrialization of the prairie landscape. Landscape fragmentation within the last five years has also reduced Ferruginous Hawk populations to the extent that this species is now the subject of a provincial recovery plan. The Pronghorn, an important game species and a prairie icon, migrates through a very narrow bottleneck across the

Trans-Canada highway to the east of Medicine Hat – a habitat corridor that may be permanently closing because of increased traffic volumes and development pressures within this movement corridor. Further habitat blockages in this key corridor could result in significant winter population die offs and genetic isolation within Alberta's Pronghorn populations. The conservation of major river corridors, coulee systems, and critical migratory and home range travel routes are essential to the integrity of ecosystems and biological diversity found in prairie and parkland Alberta.



Protect Isolated Native Habitats

Within fragmented landscapes there exist small, isolated pockets of ecological refugia that may be as important for native biodiversity conservation as larger prairie and parkland landscapes. These need to be identified, studied, and possibly protected.

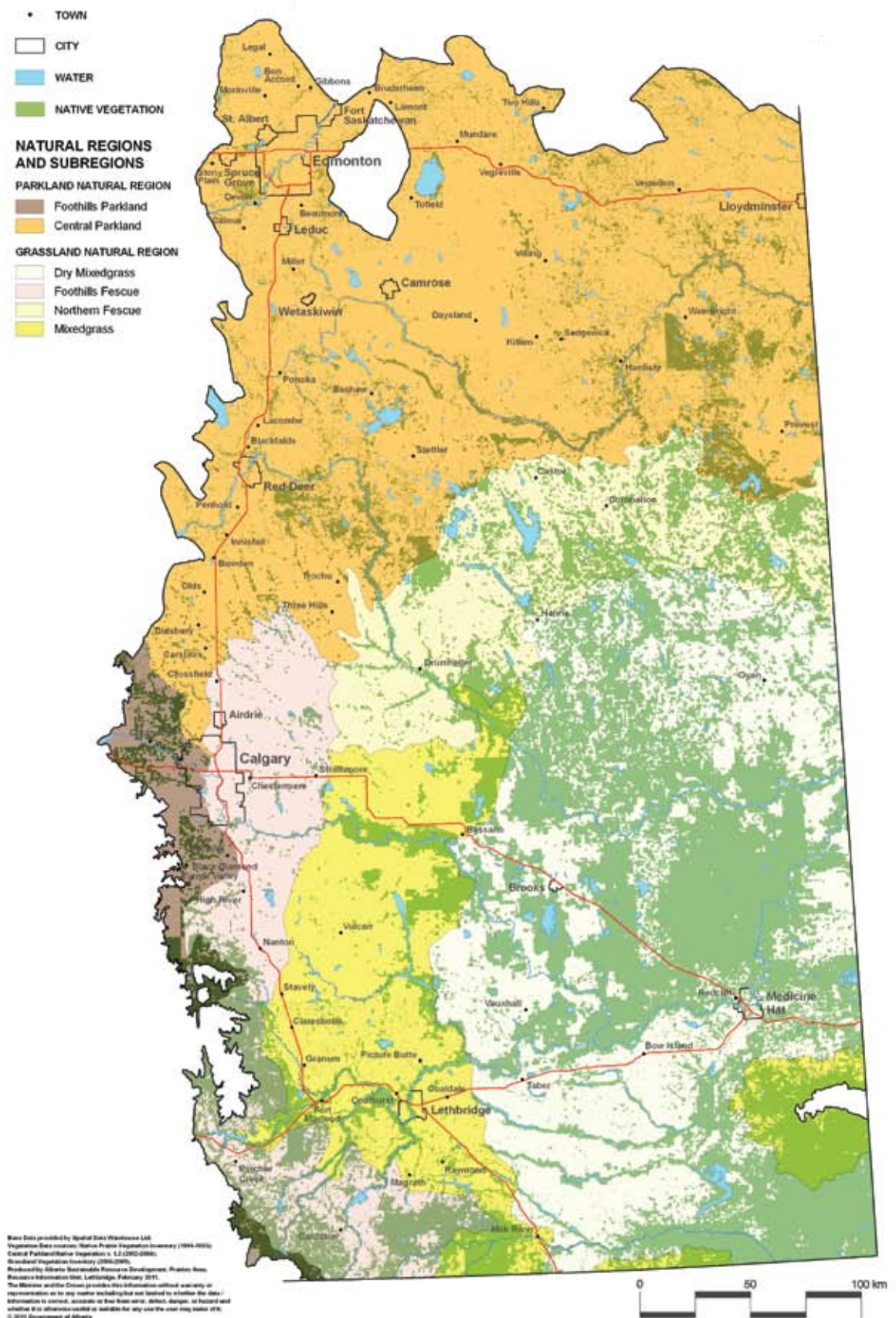
Collectively, these smaller areas offer waypoints of refuge for migrating wildlife and often contain species that are significant to hunters and anglers; or, they serve as oases for species at risk. For example, Alberta's established wetlands and ephemeral shoaling and loafing areas, which are used by waterfowl and shorebirds, collectively contribute to our international commitments for the maintenance of critical breeding grounds for North American migratory waterfowl. Some parks and protected areas are disconnected or are becoming increasingly isolated through land fragmentation, yet these protected areas are capable of retaining diverse communities of native wildlife and plants. These small scattered pockets of natural habitat, which include but are not limited to riparian areas, wetlands, rocky outcrops and remnant parcels of native prairie and parkland, are usually part of the (working) land base

that is used by farmers and ranchers. The retention of viable pockets and patches of habitat provides an example of the cooperative stewardship which is being undertaken by some landowners. Protecting isolated habitats provides an important link in the connectivity chain within a fragmented ecosystem.

Some landscapes have higher native biodiversity than other areas (Figure 4). Figure 4 was prepared by compiling four different map layers including native vegetation, species at risk, ecosystem services and environmentally significant areas. This map provides an appropriate scale to initiate a dialogue around the first two outcomes (maintain large landscapes; conserve connecting corridors) but is too coarse a scale to inform the third outcome (protect isolated habitats).



Figure 3:
Prairie and Parkland Alberta:
Natural regions and Native Prairie



Action Plan

Previous PCAPs have identified a very broad and comprehensive prairie conservation agenda for Alberta. The strategies and actions identified in this PCAP are more focused on an agenda that can be effectively driven by the PCF and its members or in association with other partner organizations.

The intent is to advertise less, but achieve more. Success in advancing the outcomes and vision articulated in the plan will entail connecting thoughtful and directed activities with our greatest asset - the aligned energy and capacity of the PCF's diverse membership.



This PCAP recognizes the need to focus activities around three primary strategies:

1 Completing inventories and assessments of native biodiversity.

Figure 4 provides an initial overview and a starting point in that journey but it does not accurately answer the question of what is on the landscape.

2 Sharing knowledge and fostering a dialogue around prairie conservation.

This dialogue will need to be focused on rural Albertans, local governments, provincial agencies and other organizations that share an interest in prairie and parkland conservation.

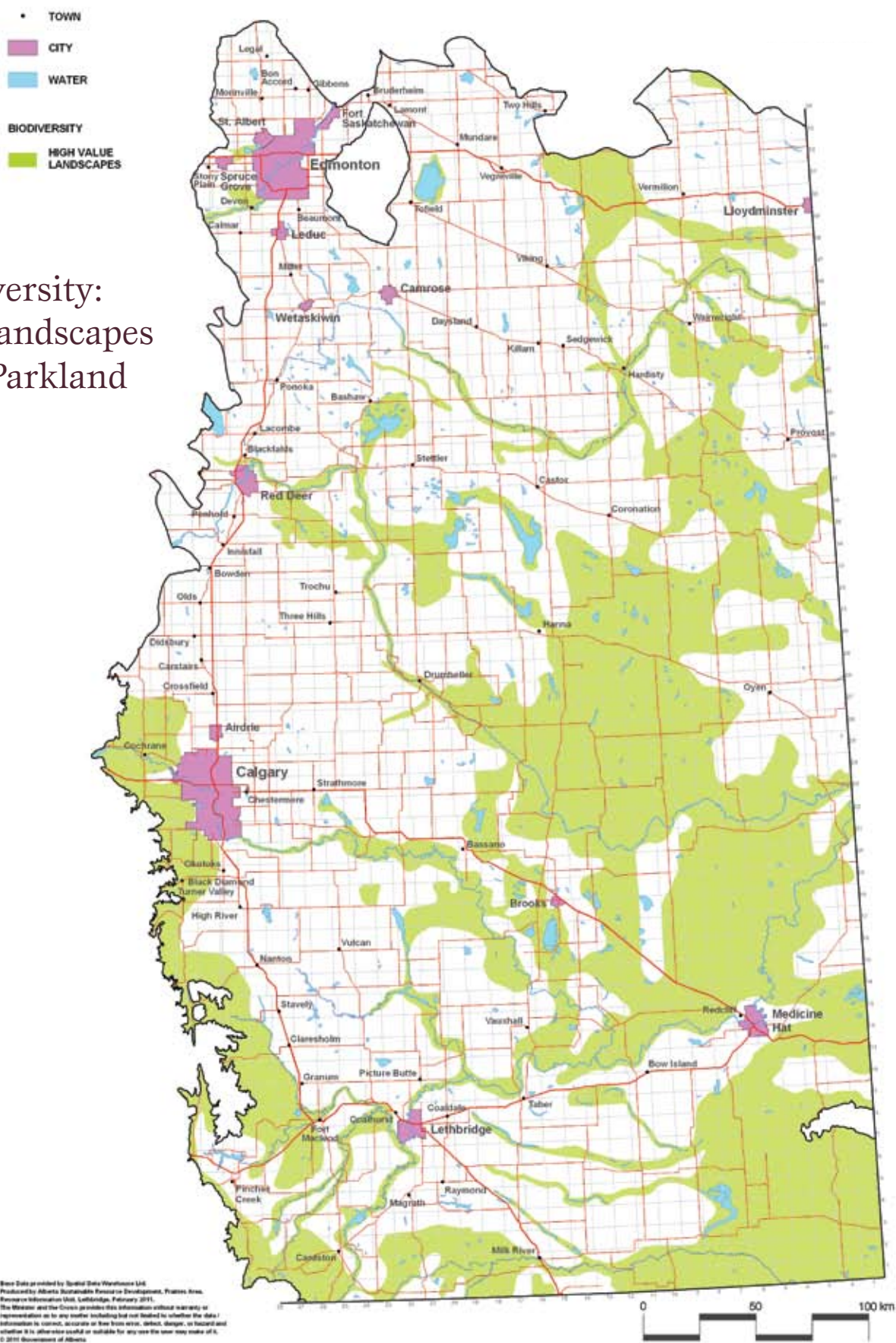
3 Promoting stewardship of native prairie and parkland ecosystems.

Effective stewardship implies that the actions of PCF will make a positive impact. A clear focus needs to be on private landowners and local governments.



Delivering on these strategies is not simple and straightforward. They are complex and will rely heavily on activities that are consistent with the Mission and Guiding Principles. The activities listed below provide a sense of the PCF priorities in the next five years. However, the annual PCF workplan will provide more specificity and consider other activities as circumstances change and opportunities arise.

Figure 4:
Native Biodiversity:
High Value Landscapes
in Prairie & Parkland
Alberta



Strategy 1

Completing inventories and assessments of native biodiversity.

Identify and map areas with high native biodiversity values... what's important, where is it and why?



Maps provide a powerful tool for visualizing resource management issues. They can depict the current state of knowledge and represent the shared values among stakeholders. Collaboration in producing maps promotes environmental democracy, forges networks of association across jurisdictions and among stakeholders, and facilitates coordination and cooperation for advancing collective actions.

Activities:

- Promote the use and application of the Grassland Vegetation Inventory in close cooperation with Alberta Sustainable Resource Development.
- Establish a simple suite of indicators for change analysis and to measure progress in achieving long term outcomes, using Grassland Vegetation Inventory (GVI) and Alberta Biodiversity Monitoring Institute (ABMI) analyses.
- Through workshops and working groups, undertake assessments, analysis, and discussions among PCF members and partners to define the priority areas for engagement.
- Encourage PCF members and partners to collaborate when defining conservation target areas spatially, including:
 - Consolidate existing data and map large native landscapes, along with valued ecosystem features, within prairie and parkland environments. These maps should also identify the degree of anthropogenic change, including fragmentation.
 - Consolidate existing data and map ecologically significant small habitats including staging and stop-over habitats, species at risk habitats, and areas with unique or sensitive natural features.
 - Consolidate existing data and map corridors connecting large landscape units that are important for maintaining specific ecological functions and processes (e.g., long-distance migration, small population demographic rescue, and genetic connections that permit dispersal or population expansion).
 - Identify and map key habitat linking areas (i.e., areas within corridors in which movements are constrained by natural or anthropogenic features and that are sensitive to human activities, including the cumulative effects of development and incremental change).
- Extend and enhance Ecological Services mapping in prairie and parkland Alberta.
- Critically assess the feasibility of and potential approaches for implementing the PCF's Ecological Services initiative.

Strategy 2

Sharing knowledge and fostering a dialogue around prairie conservation.

Foster partnerships, active engagement and increased awareness of the PCF's mission and the new PCAP among PCF member organizations, government agencies, conservation and agricultural organizations, and industry.

Foster partnerships, active engagement and increased awareness of the PCF's mission and the new PCAP among PCF member organizations, government agencies, conservation and agricultural organizations, and industry.

The enduring conservation of native prairie and parklands requires the active involvement and cooperation of affected interests including local communities, industry, non-government organizations, and all levels of government.

Numerous organizations, agencies and industries possess data, information and knowledge that, if shared, could enhance our capacity to understand, plan and implement prairie and parkland conservation initiatives.

Activities:

- Create opportunities to meet with and engage rural municipalities in conservation planning and knowledge exchange. Solicit an understanding of the needs and priorities for prairie conservation in rural communities.

- Promote and produce educational materials and products for rural and urban audiences.
- Foster discourse among PCF partners on issues that are important to them. Move these discussions along by forming working groups and holding workshops based on PCAP priorities.
- Forge strong connections with government agencies to ensure that knowledge about prairie and parkland ecosystems is available to inform current and future management decisions.
- Host the 2013 Prairie Endangered Species Conference.
- Provide web based access to PCF spatial information, GVI data and other spatial data identified by PCF members relevant to the long term outcomes identified in this PCAP.
- Provide web based access to other PCF products and member agency products and information.



Strategy 3

Promoting stewardship of native prairie and parkland ecosystems.

Support and facilitate the stewardship of native prairie and parkland ecosystems by member organizations, local governments and landowners.

The collection and sharing of knowledge must support and facilitate prairie conservation. In reality, it is the stewardship of many that will be necessary to achieve the long term outcomes of the Prairie Conservation Action Plan.

Stewardship works at different levels from federal and provincial agencies, to First Nations, local governments and private landowners. A clear focus of this PCAP is in support of provincial agencies and local governments.

- Contribute to the Land-use Framework and associated initiatives.
- Facilitate the delivery of the MultiSAR program in close cooperation with Alberta Sustainable Resource Development.

- Promote maintenance and restoration of a functional key migration corridor for pronghorn.
- Design a pilot project to demonstrate the use of a suite of conservation tools for achieving the PCAP outcomes.
- Contribute to the development and implementation of guidelines for managing the effects of anthropogenic impacts on native prairie.
- Contribute toward efforts to integrate the work being done across land, air, water and biodiversity so that environmental outcomes can incorporate all of the inter-connected impacts of anthropogenic and natural activity on the landscape.

Strategy 4

Building capacity in the Prairie Conservation Forum

Increase the capacity of the Prairie Conservation Forum and its member organizations to achieve the Vision and Outcomes of the Prairie Conservation Action Plan.

The strength of the PCF lies within its broad membership (currently, about 50 agencies and organizations) and their capacity to work both together and independently to achieve common goals. The PCF provides coordinating and advisory functions while respecting the individual mandates and interests of its members.

Activities:

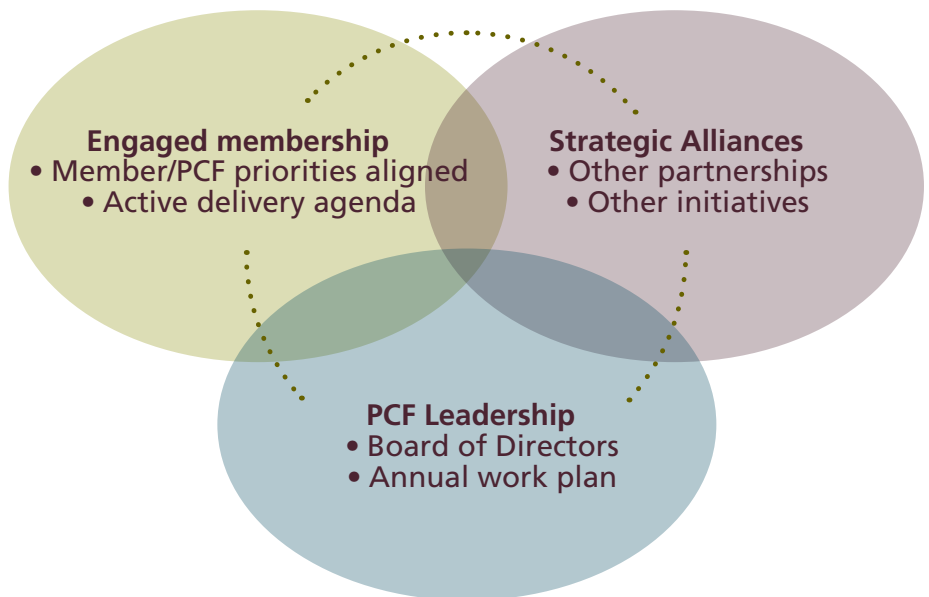
- Establish a stable funding base and institutional support to maintain the PCF Coordinator position and to advance key strategies within the PCAP.
- Promote and maintain a diverse membership and Board of Directors to advance the PCF's Vision and Mission.

- Promote awareness, linkages and partnerships with PCF members, Government of Alberta agencies and other organizations to achieve the PCAP outcomes.
- Encourage more participation on the PCF from organizations in the Central Parkland Natural Region.
- Establish mechanisms to facilitate the timely exchange of information and ideas amongst member organizations in the PCF.

Implementation



The 2011-2015 PCAP represents a shift toward a new plan format that includes three long term outcomes and identifies strategies and activities that will be led and implemented by the PCF. This new direction for the PCAP will require a more involved and active membership and Board of Directors. The following approach will be used to ensure that the PCAP is implemented within the acknowledged constraints in capacity of the PCF.



- The PCF Board of Directors will be responsible for overseeing and facilitating the implementation of the PCAP and in setting out a process for achieving defined plan outcomes.
- An annual work plan and a reporting structure will be established by the Board that identifies the PCF's priorities, operations, and activities.
- In preparing the work plan, the PCF will consider opportunities to engage the membership and establish effective partnerships with other organizations whose mandate is directly related to the Strategic Direction in the PCAP.
- An annual report will be prepared to document PCF achievements at the end of each year and to help identify priorities for amendments to the work plan.
- The annual report for the previous year and the draft work plan for the coming year will be presented to the PCF membership at the January Annual General Meeting.
- Standing committees may be established whenever there is a clear and ongoing need to focus PCF efforts around a specific strategy or activity. As a general rule, these committees will be chaired by a member of the Board.
- Task groups may be established whenever a clear task emerges that has a defined outcome, deliverable or endpoint. Task groups may be led by any member of the PCF, and will periodically update the Board on the task group's activity and progress.
- The next five-year Alberta PCAP (2016-2020) should include a section that summarizes key plan achievements and other PCF accomplishments during the life of this PCAP (2011-2015).

Glossary

The following definitions are provided for some of the key terms used in the Alberta PCAP.

Anthropogenic

Environmental modification through the work or activity of humans.

Benchmark

A fixed or established reference point against which change, outcomes and conditions can be measured.



Biological Diversity (Biodiversity)

The variability among living organisms from all sources, including terrestrial, marine and other aquatic ecosystems; and the ecological complexes of which they are part. This includes diversity within species, between species and of ecosystems (Source: The Convention on Biological Diversity (1992)).

Community

The populations of different species interacting with each other in a particular habitat.

Connectivity

Habitat linkages that connect distinguishable areas (i.e., habitat nodes/patches) within a landscape.

Conservation

The wise use, management and protection of natural resources to maintain their quality and quantity on a sustainable basis.

Conservation Ethic

A way of acting and thinking within a conservation oriented framework.

Corridor

An intact passageway that allows for the free movement of animals between habitats in a landscape.

Crown Land

Public lands held by the Crown in right of the provincial or federal government. In Alberta, provincial Crown Land is administered under the authority of the Public Lands Act.

Cumulative Effects

The incremental and combined effects (impacts) of human actions and projects on the environment within a geographically defined area.



Demonstration Site (Project)

An area set aside for the express purpose of testing, confirming, or establishing the outcome of resource management interventions for the benefit of informing others.

Ecological Integrity (see also Landscape Integrity)

An ecosystem condition in which natural processes are intact and fully functional and in which biodiversity (i.e., native species and communities) and ecological components are sustained.

Ecosystem

The structure and function of living and non-living components and the ecological processes that link them.

Ecosystem Function

The set of processes that integrate ecosystem components.



Ecosystem Management

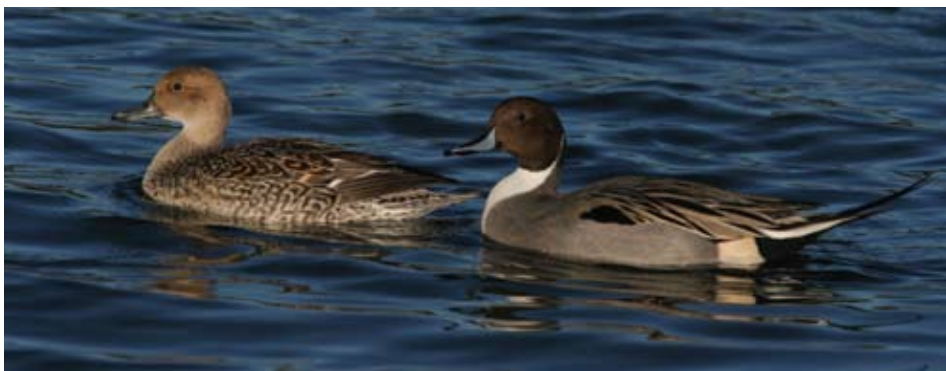
The art and science of conserving natural landscape diversity, productivity and processes while providing a sustainable flow of products to meet society's needs.

Ecosystem Services

Ecosystem services, also referred to as ecological goods and services, are the economic and social benefits humans derive, directly and indirectly, from the natural environment, such as clean air, healthy soil, biodiversity, water quality and quantity, and wildlife-related recreation (Source: Constanza et al, 1997; Agriculture and Agri-Food Canada, 2006; Millennium Ecosystem Assessment, 2005).

Environmental Indicators

A measurable variable – describing an environmental state or condition – that is used to assess the effectiveness of chosen strategies in achieving stated resource management goals, targets and objectives.



Ephemeral

Short-lived, as in water bodies such as ponds that fill or streams that flow briefly after precipitation events.

Fauna

All species of vertebrate and invertebrate animals.

Flora

All species of vascular and non-vascular plants.

Functional Ecosystem

A functional ecosystem is one where ecological processes (e.g. energy flow, hydrologic cycling, nutrient cycling, predation, migration) express little to no deviation from an expected condition (Source: Pellant et al. 2005).

GIS (Geographic Information System)

A powerful mapping tool for collecting, storing, retrieving, displaying and transforming or manipulating mapped data. GIS makes 'smart maps' in that any type of data can be mapped where it occurs in real space and used to answer management questions for particular applications. It can be used to model 'what-if' scenarios – which are an important component of environmental and risk assessments – and is used in cumulative impacts modelling as well as examining trends over time and space.

Habitat

The place where an animal or plant lives.

Industrial Footprint

The geographical area which is disturbed or occupied by an industrial project or activity.

Landscape

All of the biotic and abiotic features of an area including vegetation, microbes, wildlife, topography, soils, geology and climate. A landscape can be a small feature such as a hill, or a regional feature such as a natural region or subregion (see definition of these terms).

Landscape Integrity

The quality of a landscape mosaic in which the structure and function of naturally occurring landforms, surface features and landscape characteristics are maintained while accommodating acceptable levels of disturbance.

Management Plan

A document which contains intentional direction statements (i.e., vision, goals, objectives, strategies, outcomes, indicators, targets, thresholds, guidelines, actions, etc.) which are to be pursued to help ensure that a particular species or habitat does not become rare, threatened or endangered.

Microfauna

Insects and other small invertebrates like mites, nematodes and worms that serve an essential role in ecosystems.

Monitoring

The act of assessing some entity with the intent of detecting changes over time. Ecosystem monitoring, for example, might include establishing some benchmarks or records of initial condition and then surveying those benchmarks every few years for changes in wildlife, plant and microbial composition.

Native Biodiversity of Alberta

All forms of life present in prairie and parklands of Alberta at all its levels, from genes and species, to ecosystems and ecological and evolutionary processes that existed in the region before settlement by Europeans. It does not include non-endemic species. Native biodiversity is a reflection of the ecological integrity of native prairie and parkland ecosystems.

Native Prairie

An area of unbroken grassland or aspen parkland dominated by non-introduced species.

Native Prairie Ecosystem

See 'native prairie' and 'ecosystem'. Includes soil, hydrology, vegetation, climate, microbes, wildlife, landscape features, and the processes which link them.

Natural Capital

Refers to those naturally occurring assets that are found on, above or below the earth's surface including: water bodies, soils, forests and grasslands, minerals, energy resources, fish and wildlife, scenery, landforms, etc.



Natural Region/Subregion

A natural region is a broad landscape division characterized by a distinct set of climatic, vegetation, soil, and topographic features. A natural subregion is a finer subdivision of the natural region based on landform variations over a smaller area. There are six natural regions subdivided into 20 natural subregions in Alberta.

Parkland

The 'parkland' includes three natural subregions (Central Parkland, Peace River Parkland and Foothills Parkland) developed on dark-brown or black chernozemic soils. Characteristic vegetation includes rough fescue in grassland portions and trembling aspen in the forested areas. This natural region has a well developed shrub and herbaceous layer.

Protection

Retention of the integrity, authenticity, and intrinsic value of the native prairie resource in perpetuity.

Public Land

Provincial Crown Land. Defined in Alberta's Public Lands Act as "land of the Crown in right of Alberta."

Range, Rangelands

Generally, lands supporting native or introduced plants which are a source of forage for domestic livestock and native animals, and a source of other values derived from ecosystem functions.

Range Management

The art and science of optimizing the returns from rangelands in those combinations most desired by and suitable to society through the manipulation and conservation of range ecosystems.

Recovery Plan

A set of actions for a particular threatened, endangered or extirpated species, aimed at increasing its numbers so that it can be de-listed.

Resource

Any part of the environment which society perceives as having value.

Riparian Management

The actions associated with controlling resource uses in ecosystems along lakes, rivers and streams and on their floodplains to ensure their continuing integrity and function.

Species

A biological unit used to classify living things, describing life forms that share general physical characteristics, and which theoretically can mate and produce fertile offspring.

Species at Risk

An umbrella term that refers to species which fall into the following (federal) categories: extirpated, endangered, threatened, or of special concern (vulnerable).

"**Extirpated**" species are those that no longer exist in the wild in Canada but exist elsewhere.

"**Endangered**" species are those that face imminent extirpation or extinction.

"**Threatened**" species are those which are likely to become endangered if limiting factors are not reversed.

"**Special Concern**" (Vulnerable) species are those which may become threatened or endangered because of a combination of biological characteristics and identified threats.

Stewardship

The individual and corporate responsibility of one generation to maintain the natural inheritance that it has received, both for its benefit and for the benefit of future generations. A commitment to conserve and maintain the natural features of the land (Source: Grasslands – Toward a North American Conservation Strategy. 2003).

Sustainable Development

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Source: Brundtland Commission).

Tame Pasture (tame grassland)

Landscapes which have been converted from natural vegetative cover to forage species through cultivation and seeding.

White Area

Established by the Government of Alberta in 1948, the 'White Area' is that portion of the province which is suitable for human settlement and agricultural use.

Wildlife

All native species of plants, animals (including all invertebrates and vertebrates) fungi, and some unicellular life forms.

Prairie Conservation Forum

The Prairie Conservation Forum is a voluntary association of Alberta organizations and individuals whose interests or jurisdictions relate to prairie and parkland landscapes. It exists to encourage effective implementation of the Prairie Conservation Action Plan and to provide an ongoing profile for prairie and parkland conservation initiatives. Its key functions include:

- providing a forum for networking and information exchange
- steering implementation of the PCAP
- promoting public awareness and education

Any organization wishing to participate in the work of the Forum may join the Prairie Conservation Forum. All Forum meetings are open to the public. The Prairie Conservation Forum meets about three times annually in various centers in prairie and parkland Alberta.

The current active membership of the Prairie Conservation Forum is as follows:

Agriculture and Agri-Food Canada, PFRA

www.agr.gc.ca/index_e.phtml

- Mark Wonneck
- Bill Bristol

Alberta Agriculture and Rural Development

www.agric.gov.ab.ca/app21/rtw/index.jsp

- Rob Dunn

Alberta Conservation Association

www.ab-conservation.com

- Brad Downey
- Randy Lee
- Julie Landry-DeBoer

Alberta Culture and Community Spirit

www.cd.gov.ab.ca

- Dr. W. Bruce McGillivray
- Mark Steinhilber
- George Chalut

Alberta Economic Development

www.alberta-canada.com/

- Kevin Crockett

Alberta Energy

www.energy.gov.ab.ca

- Selena Cole

Alberta Environment

environment.gov.ab.ca

- Ian Dyson
- Cheryl Dash
- Sheree Obbagy
- Monica Dahl

Alberta Native Plant Council

www.anpc.ab.ca

- Cheryl Bradley
- Reg Ernst

Alberta Riparian Habitat Management Society, Cows and Fish

www.cowsandfish.org

- Norine Ambrose
- Amanda Bogen Halawell
- Kathryn Hull

Alberta Sustainable Resource Development

srd.alberta.ca

- Dom Ruggieri

Alberta Transportation

www.transportation.alberta.ca

- Carlene Godwin

Alberta Wilderness Association

www.albertawilderness.ca/

- Christyann Olson
- Nigel Douglas
- Cliff Wallis
- Cleve Wershler

Ann and Sandy Cross Conservation Area

www.crossconservation.org

Antelope Creek Ranch

www.antelopecreekranch.ca

- Neal Wilson

Canadian Forces Base, Suffield (Department of National Defence)

www.army.forces.gc.ca/cfb_suffield/contents.asp

- Brent Smith
- Delaney Boyd
- Andrew Taylor
- Corey M. Davidson
- Karen Guenther
- Julie Tingley

Canadian Natural Resources

www.cnrl.com

- Brad Smylie

Canadian Parks and Wilderness Society

www.cpaws.org

- Sarah Elmeligi

Canadian Wildlife Service, Environment Canada

[www.ec.gc.ca/default](http://www.ec.gc.ca/default.asp?lang=En&n=FD9B0E51-1)

[asp?lang=En&n=FD9B0E51-1](http://www.ec.gc.ca/default.asp?lang=En&n=FD9B0E51-1)

- Ron Bennett
- Todd Kemper
- Diana Ghikas

Cardston County

www.cardstoncounty.com

- Tim Romanow

Cenovus Energy

www.cenovus.com

- Susan Patey LeDrew
- Liz Swift

City of Calgary

www.calgary.ca

- Chris Manderson

City of Lethbridge

www.lethbridge.ca

- Coreen Putman

Ducks Unlimited Canada

www.ducks.ca

- Morgan Stromsmoe
- Les Wetter

Eastern Irrigation District

www.eid.ab.ca

- Ross Owen
- Rick Martin

Edmonton and Area Land Trust

ealt.ca

- Pamela Wight

Federation of Alberta Naturalists

naturealberta.ca

- Donald Stiles
- Andrew Stiles

Fish and Wildlife Division, Alberta Sustainable Resource Development

srd.alberta.ca/ManagingPrograms/
FishWildlifeManagement/Default.aspx

- Brandy Downey

Foothills Restoration Forum

www.foothillsrestorationforum.com

- Marilyn Neville

Glenbow Ranch Park Foundation

www.grpf.ca

- Andy Crooks
- Steve Tannas

Grasslands Naturalists

www.natureline.info

- Rob Gardner
- Henry Binder

Lands Division, Alberta Sustainable Resource Development

www.srd.alberta.ca/ManagingPrograms/
Lands/Default.aspx

- Brian Laing
- Bruce Cairns

LandWise Inc.

http://landwise.ca/

- Ron McNeil

Lethbridge Naturalists Society

http://naturealberta.ca/clubs/lethbridge-
naturalists-society

- Linda Cerney

Milk River Watershed Council

www.milkriverwatershedcouncil.ca

- Sandy Riemersma
- Mary Lupway

Multiple Species at Risk Program

www.multisar.ca

- Francois Blouin

National Energy Board

www.neb-one.gc.ca

- Kent Lien
- Lianne Germaine

Natural Resources Conservation Board, Alberta Sustainable Resource Development

www.nrcb.gov.ab.ca

- James Fujikawa

Nature Conservancy of Canada

www.natureconservancy.ca

- Dana Blouin
- Tara Worobetz

Oldman Watershed Council

www.oldmanbasin.org

- Stephanie Palechek
- Leta Pezderic
- Shannon Frank

Operation Grasslands Community, Alberta Fish and Game Association

www.afga.org

www.ogcsp.com/ogc/ogc_home.htm

- Susan Skinner

Parks Division, Alberta Tourism, Parks and Recreation

www.albertaparks.ca

- Bill Dolan
- Cam Lockerbie

Pekisko Group

www.pekisko.ca

- Harvey Gardner

Red Deer River Watershed Alliance

www.rdrwa.ca

Resource Information Management Branch, Alberta Sustainable Resource Development

srd.alberta.ca

- Livio Fent

Royal Alberta Museum

www.royalalbertamuseum.ca

- David Parama

Society for Range Management

www.rangelands.org

- Barry Adams

Southern Alberta Applied Research Association

www.areca.ab.ca/index.php?option=com_con
tent&view=article&id=205&Itemid=132

- Jerry Holtman

Southern Alberta Land Trust Society

www.salts-landtrust.org

- Alan Gardner
- Craig Smith

Special Areas Advisory Council

www.specialareas.ab.ca/Boards.html

- Daryl Swenson
- Norman Storch

Special Areas Board

www.specialareas.ab.ca

- Dug Major
- Jordon Christianson

Suncor Energy

www.suncor.com/default.aspx

- Sean Fontaine

Tatonga Inc.

www.tatonga.ca/index.htm

- Donna Trottier

Tera Environmental Consultants

www.teraenv.com/Welcome.html

- Tammy MacMillan

Town of Taber

www.taber.ca

- Tania Sprong-Hanna

University of Alberta

www.ualberta.ca

- Dr. Mark S. Boyce
- Peggy Desserud

University of Calgary

www.ucalgary.ca

- Dr. Cormack Gates
- Laura Hickman

University of Lethbridge

www.uleth.ca/

- Dr. Cam Goater

Waterton Lakes National Park, Parks Canada

www2.parksCanada.gc.ca/pn-np/ab/waterton/
index_E.asp

- Cyndi Smith

Western Sky Land Trust Society

www.westernskylandtrust.ca

- Tracy Tarves

Wildlife Society, Alberta Chapter

joomla.wildlife.org/alberta/

- David Scobie
- Douglas M. Collister

Individuals

- Don Watson
- Vern McNeely
- Michael Verhage
- Marilou Montemayor
- Lisa Lumley
- Jeff Blake
- Jacquie Gilson
- Branimir Gjetvay

Prairie Conservation Forum Coordinators

- Katheryn Taylor
- Sasha Harriott

For contact information on active members and organizations, please refer to www.albertapcf.org

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