environmental • social • economic

An Alberta Land-use Framework Integrated Plan

South Saskatchewan Regional Plan 2014 - 2024

Alberta Government

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Introduction

Background

Alberta's Land-use Framework (LUF), released in December 2008, sets out a new approach to managing our province's land and natural resources to achieve Alberta's long-term economic, environmental and social goals. The LUF establishes seven new land-use regions and calls for the development of a regional plan for each. The *Alberta Land Stewardship Act* supports the LUF and establishes the legal basis for the development of regional plans.

Regional planning provides the policy integration, direction and clarity needed to help decision-makers make decisions that collectively reflect and support the needs and values of Albertans. Regional planning is a part of the Government of Alberta's Integrated Resource Management System (IRMS). The IRMS is a shift in approach, designed to provide a more holistic view to manage and monitor the environment and our natural assets. It supports responsible development of the province's resources and realization of its desired outcomes. The system is founded on setting and managing to clear policies and cumulative outcomes, providing assurance and maintaining a monitoring and measurement system to measure the achievement of outcomes. The system is dynamic and adaptive as necessary to reflect new information and knowledge and it is also collaborative – achieving desired outcomes requires working with other governments, aboriginal peoples, stakeholders, partners and the public.

Contributions from the South Saskatchewan Regional Advisory Council, aboriginal peoples, stakeholders, municipalities and the public have informed the development of the South Saskatchewan Regional Plan (SSRP). Development of the SSRP utilized input and feedback received through three phases of public consultation:

- Input on the region's issues;
- Feedback on the advice from the South Saskatchewan Regional Advisory Council; and
- Feedback on the draft SSRP.

Purpose

The SSRP sets the stage for robust growth, vibrant communities and a healthy environment within the region over the next 50 years.

With that long-term horizon in mind, the SSRP identifies strategic directions for the region over the next 10 years. The regional plan will be assessed and, if necessary, updated every five years to maintain its relevance and effectiveness while maintaining certainty, stability and commitment to regulatory intent. Any subsequent revisions to the plan require consultation with Albertans.

Elements of a Cumulative Effects Management System

Outcome-based
Driven by clearly defined outcomes for the desired quality or state of the environment now and in the future, while recognizing the economic, environmental and social implications of meeting those outcomes. Activities will be managed to achieve outcomes.

Place-based
Different regions may have different needs and outcomes.

Knowledge-based
The foundation of the system is a sound knowledge base and performance management regime, composed of information and evaluation to determine if outcomes are being met or management actions required.

Adaptive
The system can adapt to change when performance results are not achieving outcomes, or there is a risk of not achieving outcomes in the future or when circumstances change.

Shared stewardship
A collaborative process to inform development of outcomes and build commitment for the shared responsibility to achieve outcomes.

The SSRP:

- Establishes a long-term vision for the region;
- Aligns provincial policies at the regional level to balance Alberta's economic, environmental and social goals;
- Reflects ongoing commitment to engage Albertans, including aboriginal peoples, in land-use planning;
- Uses a cumulative effects management approach to balance economic development opportunities and social and environmental considerations;
- Sets desired economic, environmental and social outcomes and objectives for the region;
- Describes the strategies, actions, approaches and tools required to achieve the desired outcomes and objectives;
- Establishes monitoring, evaluation and reporting commitments to assess progress; and
- Provides guidance to provincial and local decision-makers regarding land-use management for the region.

Through regional planning, as well as other initiatives, Alberta is shifting to a more effective and efficient management system that considers the cumulative effects of all activities and improves integration across the economic, environmental and social pillars. This system must adapt to place-based challenges and opportunities as well as allow decision-makers to see the bigger picture.

This direction is a foundation of the Land-use Framework, where the Government of Alberta is committed to manage the cumulative effects of development on air, water, land and biodiversity and ensuring the value and benefit of these are sustained at the regional level and contributes to provincial outcomes. Cumulative effects management focuses on achievement of outcomes, understanding the effects of multiple development pressures (existing and new), assessment of risk and collaborative work with shared responsibility for action and improved integration of economic, environmental and social considerations.

Outcomes and objectives are established, along with the strategies and actions that will be used to achieve them. Integrated monitoring, evaluation and reporting systems are essential as they are used to assess progress in achieving outcomes and objectives.

Land-use Planning in Alberta

Planning and decision-making in Alberta are carried out under various provincial legislation and policies. These are applied by a range of decision-makers – including Government of Alberta departments, boards and agencies and municipal governments – responsible for making decisions about activities in the region.

The SSRP applies to private lands and Crown lands in the region.

Private Lands

Planning on private lands is primarily governed by the *Municipal Government Act* (MGA) and instruments made under its authority such as the Subdivision and Development Regulation. Private landowners make decisions about how to use and manage their land consistent with existing provincial legislation and municipal bylaws. The SSRP does not change this or alter private property rights.

Municipal governments under Part 17, Planning and Development of the MGA, with few exceptions (such as Sections 618 and 619) are delegated with the responsibility and authority for local land-use planning and development on all lands within their boundaries. This includes the creation of municipal development plans, area structure plans and land-use bylaws. This delegated authority remains with municipalities. Municipal planning and development decisions will, however, have to be in alignment with the regional plan to achieve the regional outcomes established in the plan.

The SSRP, including subregional plans, does not rescind land title or freehold mineral rights. Any decisions that may affect private landowners or freehold mineral owners will occur through existing legislation and processes and private landowners and freehold mineral owners remain entitled to due process. Private landowners and freehold mineral owners may be entitled to compensation under those laws.

Freehold mineral rights underlie about 40 per cent of the region, mainly in the settled area. Freehold mineral rights are private property and are subject to the *Land Titles Act*, the *Law of Property Act* and common law. The Government of Alberta has the power to acquire freehold minerals by expropriation if it is of the opinion that any further exploration for the development of those minerals is not in the public interest (Section 8(1)(b), *Mines and Minerals Act*). In cases where the Government of Alberta denies opportunity to develop freehold minerals, the owner of the freehold minerals can apply for compensation to the Land Compensation Board, which determines the compensation payable under the *Expropriation Act* (that is, market value, damages attributable to disturbance, value of any special economic advantage, damages for injurious affection). The *Alberta Land Stewardship Act* treats freehold mineral and surface land title holders similarly.

The Property Rights Advocate's office helps Albertans and government agencies and Ministries understand and comply with property laws and procedures and advocates for fairness and balance when property rights conflict with public needs.

Provincial Crown Lands

Crown lands include lands that are administered as public lands under the *Public Lands Act*, parks under the provincial parks legislation and highways under the *Highways Development and Protection Act*. Provincial Crown lands are owned by the Crown and managed for the benefit of all Albertans. The Government of Alberta often allows individuals and businesses to use public lands through statutory consents that grant permission to do certain activities on public land – such as livestock grazing, timber harvesting, energy development or recreational use. In addition, the Government of Alberta grants statutory consents related to the use of, or impacts on, public resources (like water) to allow or support specific development, industrial activity, conservation or other activities.

On Crown lands, direction under the SSRP will be delivered through existing legislation such as the *Public Lands Act*, the *Forests Act* and the provincial parks legislation and through existing tools such as integrated landscape management plans, access management plans and forest management planning. These further define access to and use of provincial Crown land and focus on operational activities that reflect the regional priorities and direction.

A Policy for Resource Management of the Eastern Slopes ("Eastern Slopes Policy"), Revised 1984, has been an enduring guidance tool for the Government of Alberta. The policy provides the foundation for the province's Integrated Resource Plans at subregional and local levels within the eastern slopes and sets watershed management as the highest priority in the overall management of the eastern slopes. The natural resources are to be developed, managed and protected in a manner consistent with principles of conservation and environmental protection. This regional plan incorporates the principles and directions of the Eastern Slopes Policy and replaces it in this region.

The following Integrated Resource Plans have provided resource objectives and operational guidance within their planning areas for over 30 years. These plans have represented the Government of Alberta's resource management policy for public lands and resources within the defined area and have been intended to be a guide for decision-makers. They will remain in effect until they have been reviewed for their relevance and incorporated as appropriate under the implementation strategies of this regional plan or future subregional or issue-specific plans within the region:

- Bow Corridor Local Integrated Resource Plan
- Castle River Subregional Integrated Resource Plan
- Crowsnest Corridor Local Integrated Resource Plan
- Eden Valley Integrated Resource Plan
- Ghost River Subregional Integrated Resource Plan

- Kananaskis Country Subregional Integrated Resource Plan
- Poll Haven Integrated Resource Plan
- Livingstone Porcupine Hills Subregional Integrated Resource Plan
- Eastern Irrigation District Integrated Resource Plan

Provisions of the plans that have already been incorporated into the regulatory system, as amended or replaced from time to time, will continue to provide operational guidance. Decisions on Crown lands shall be aligned with the regional plan to achieve the regional outcomes established in the plan.

The Government of Alberta recognizes that a coherent planning hierarchy from regional plans, to subregional, issue-specific and local plans is necessary to ensure efficiencies, effectiveness and clarity for decision-makers, stakeholders and Albertans. Implementation of the SSRP will involve delivering on this intent, recognizing that there are legacy plans (e.g., Integrated Resource Plans) to incorporate into new subregional or issue specific plans.

Informing Land-use Decisions

The SSRP will be implemented by those who already make land-use decisions. Decision-makers are those having legal authority to grant some form of statutory consent, such as a development permit, a water licence or a project approval. Decision-makers include municipal governments and Government of Alberta departments, boards and agencies and other organizations. Local government bodies and decision-making bodies will be required to ensure their regulatory instruments comply with the SSRP. They must also use the regional plan to inform their policies.

The implementation of regional plans must follow the laws of Alberta. All decisions that implement regional plans will be made through existing laws. All rights to appeal, requirements for due process and rights to compensation enjoyed by landowners and rights holders under these laws are not changed by the SSRP.

Compliance with the regional plan does not remove each decision-maker's duty (to the extent that it otherwise would apply) to ensure that its decision making complies with the constitution. For example, regarding consideration of impacts of its anticipated decision on the constitutionally protected rights of aboriginal peoples.

Aboriginal Peoples and Regional Planning

Section 35 of the *Constitution Act*, 1982, recognizes and affirms "the existing aboriginal and treaty rights of the aboriginal peoples of Canada." In this context, aboriginal peoples include the First Nations (Indian), Inuit and Métis peoples of Canada.

Under Alberta's Policy on Consultation with First Nations on Land and Natural Resource Management ("Consultation Policy"), 2013, the Government of Alberta has committed to consult with First Nations before making land-use decisions that may adversely impact "treaty rights" as well as "traditional uses." Treaty rights allow First Nations peoples to hunt, fish and trap for food on unoccupied provincial Crown land or on other lands where access for these purposes is allowed. Traditional uses include burial grounds, gathering sites and historic or ceremonial locations. The Consultation Policy currently does not extend to Métis peoples.

The Land-use Framework states that "the provincial government will strive for a meaningful balance that respects the constitutionally protected rights of aboriginal communities and the interests of all Albertans." Case law has confirmed that there are no Métis communities holding such rights in the South Saskatchewan Region and so the focus on conversations with the region's aboriginal people has been with First Nations communities.

Within the SSRP area, Alberta recognizes that those First Nations that hold constitutionally protected rights are uniquely positioned to inform land-use planning. Consulting aboriginal communities on regional planning, particularly those aspects that have the potential to adversely impact their constitutionally protected rights and reconciling interests are essential to achieving the regional vision. Consideration of First Nations' input is a thread through all three pillars of regional planning; environmental, social and economic.

In accordance with applicable government policy as it may be from time to time, the Government of Alberta will continue to consult with aboriginal peoples when government decisions may adversely affect the continued exercise of their constitutionally protected rights and the input from such consultations continues to be considered prior to the decision.

Other Jurisdictions and Regions

Coordination with other jurisdictions, such as the federal government, provinces and other Land-use Framework regions, will be required to ensure alignment of regional outcomes and that objectives and strategies are achieved.

Plan Structure

The SSRP has four key components:

- **Introduction** – includes the purpose of the regional plan, land-use planning and decision-making in Alberta, and how the regional plan will inform land-use decisions.

- **Strategic Plan** – includes the vision for the future of the region along with desired regional outcomes. It builds on existing policies and initiatives by establishing a set of strategic directions that help achieve the regional vision and outcomes.
- **Implementation Plan** – includes regional objectives, strategies and actions that will be undertaken to support achievement of the regional vision and outcomes and indicators to measure and evaluate progress.
- **Regulatory Details Plan** – enables achieving the strategic direction and strategies and actions.

Refer to Regulatory Detail Part 1: General (pages 159-162)

Strategic Plan

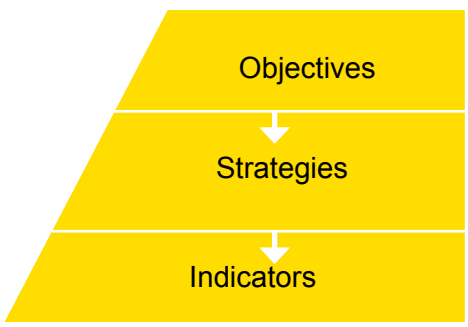
The Strategic Plan defines the specific vision, outcomes and strategic directions that identify priority areas of focus for each region in a manner that considers and integrates the regional perspective with the provincial picture.

Implementation Plan

The Implementation Plan establishes the objectives and strategies that will be implemented to achieve the vision and outcomes for the region. Indicators at the strategy and outcome level are also identified as a means by which to evaluate the level of progress made towards achieving the desired outcomes for the region.

Regulatory Details Plan

The Regulatory Details Plan contains information regarding the mandatory (i.e., regulated) actions that land-use decision makers and users must comply with in order for the vision and outcomes to be achieved for the region.



The Implementation Plan and Regulatory Details Plan are linked in that some strategies and actions may be implemented through regulatory provisions.

Contains regulatory provisions that may take the following form:

- Must not approve
- Must evaluate and apply
- Must do
- Must not do

Binding Nature of the South Saskatchewan Regional Plan

Pursuant to section 13 of the *Alberta Land Stewardship Act*, regional plans are legislative instruments and, for the purposes of any other enactment, are considered to be regulations. However, a regional plan may provide rules of application and interpretation, including specifying which parts of the regional plan are enforceable as law and which parts of the regional plan are statements of public policy or a direction of the Government that is not intended to have binding legal effect.

Pursuant to section 15(1) of the *Alberta Land Stewardship Act, the* Regulatory Details are enforceable as law and bind the Crown, decision-makers, local government bodies and subject to section 15.1 of the *Alberta Land Stewardship Act*, all other persons.

Except as otherwise provided in the Regulatory Details, the following portions of the SSRP are not intended to have binding legal effect and are statements of policy to inform the Crown, decision-makers, local government bodies and all other persons in respect of this regional plan and the planning region:

- Introduction
- Implementation Plan
- Strategic Plan

The Glossary of Terms and Appendices are not intended to have binding legal effect and are for information only, except as otherwise provided in the Regulatory Details.

Coming into Effect

This regional plan comes into effect September 1, 2014.

Strategic Plan

The Binding Nature of the Strategic Plan

Except as otherwise provided in the Regulatory Details, the provisions of this Strategic Plan are not intended to have binding legal effect and are statements of policy to inform the Crown, decision-makers, local government bodies and all other persons in respect of the following activities in the planning region:

a) Identifying the objectives of the Province of Alberta;

b) Planning for the future;

c) Managing activities to meet the reasonably foreseeable needs of current and future generations of Albertans, including aboriginal peoples;

d) Considering future proposals for land use and development;

e) Setting priorities in the co-ordination of decisions by decision-makers and local government bodies;

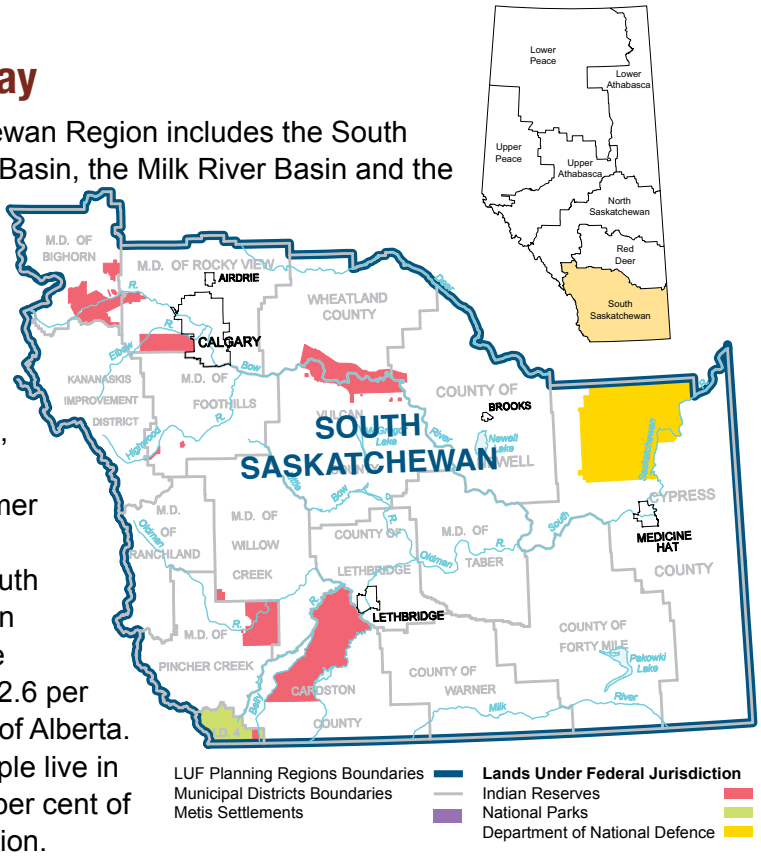
f) Monitoring the cumulative effects of human endeavour and other events;

g) Responding to the cumulative effects of human endeavour and other events; and

h) Generally in respect of carrying out their respective powers, duties and responsibilities.

The Region Today

The South Saskatchewan Region includes the South Saskatchewan River Basin, the Milk River Basin and the Alberta portion of the Cypress Hills. The region includes 15 municipal districts, one specialized municipality, two improvement districts, five cities, 29 towns, 23 villages, two summer villages and seven First Nations. The South Saskatchewan Region covers 83,764 square kilometres or about 12.6 per cent of the total area of Alberta. About 1.8 million people live in the region, about 44 per cent of the provincial population.



Most of the urban population lives in the region's cities: Calgary, Airdrie, Lethbridge, Medicine Hat, Okotoks and Brooks. The Calgary Census Metropolitan Area, with a population of 1,214,839, is the fifth largest metropolitan area in Canada, with an increase of 12.6 per cent from 2006 to 2011[1].

Economic Development

The South Saskatchewan Region has a diversified economy which contributes to the vitality and prosperity of communities within the region. In addition to a strong agricultural, tourism and forestry economy, the region is fast becoming a major international centre for innovation in the development of energy and mineral resources as well as in technologies to support more environmentally responsible resource development. It is anticipated that local manufacturing and services will continue to expand in support of increasing natural gas (including shale gas and coal bed methane) and conventional oil development in the region. These trends will continue to stimulate development of larger and more diverse retail centres and growing commercial and professional services and facilities.

The Government of Alberta is taking steps to secure the province's economic future, which will also benefit the South Saskatchewan Region. This effort is focused on education and entrepreneurship, which are the cornerstones of a dynamic economy, which Albertans build through knowledge, adaptability and an entrepreneurial spirit. Critical elements of this focus will help close the participation gap of under-represented groups in post-secondary institutions, increase high school graduation rates and contribute to the conditions that increase business startups and the commercialization of technology.

Expanded market access contributes significantly to the sustainability of the province's export-driven technology. A key component of this sustainability is to develop new access (e.g., through pipelines and rail) to markets outside our traditional core trading partner, the United States.

Alberta has world-class infrastructure, a trained and skilled workforce, up-to-date technologies, legislated environmental protection and social safety nets that make the province a great place to live, work and raise a family. The Government of Alberta continues to create a policy and business climate that attracts investment and promotes diversification of the economy, including in the agriculture, agri-food, tourism and industry sectors.

Aboriginal peoples' participation in the economy ranges from agriculture and energy (e.g., oil and gas, alternatives) to tourism, mines and minerals. Aboriginal people have contributed significantly in the formative years, both as producers and in management, marketing and sales.

[1] Statistics Canada

Agriculture

The agricultural industry is the number one renewable and sustainable resource in the South Saskatchewan Region and will continue to generate substantial social, economic and environmental benefits into the future. In 2011, farm cash receipts amounted to $4.5 billion (43 per cent of the provincial total of $10.4 billion[2]) and the region also accounted for approximately half of the province's $12.2 billion revenue for sales in food and beverage manufacturing[3]. The economic success of agriculture in the South Saskatchewan Region is driven in part by a combination of agricultural policy, irrigation development and fertile grassland soils that have provided the necessary land base for crop production, livestock grazing and the majority of Alberta's cattle feedlot capacity. The region also contains a significant beef processing sector as well as processing facilities for poultry and dairy products, potatoes, sugar beets, canola and cereals (flour, feed and distilling).

The industry is supported by provincial legislation, including the *Agricultural Operation Practices Act* (AOPA). The first part of this legislation provides a process that protects agricultural operations from liability nuisance suits as long as producers follow generally accepted agricultural practices. The second part of AOPA establishes the regulatory standard (i.e., Minimum Distance Separation) for anyone who handles manure and/or manure compost and creates a permit process for new or expanding confined feeding operations.

Provincially, a competitive, self-reliant agricultural industry is ensured through policy development, advocacy, program and services provision and collaboration with key partners, to reinforce economic growth and build lasting prosperity in rural Alberta. Currently there is renewed government effort to:

- Enhance research and innovation;
- Maximize opportunities in value-added agricultural products and services;
- Develop local, national and international markets;
- Overcome trade barriers to expand market access;
- Attract investment; and
- Position Alberta as the preferred global supplier of agricultural products and services.

Federal-Provincial-Territorial agricultural policy frameworks (e.g., Growing Forward 2, which came into effect April 1, 2013) offer additional support to the industry through various programs, projects and extension services, which provide additional means to achieve a profitable, sustainable, competitive and innovative agriculture, agri-food and agri-products sector for the South

[2] Alberta Agriculture and Rural Development
[3] Alberta Agriculture and Rural Development

Saskatchewan Region and Alberta as a whole. Through cost sharing with the federal government, significant strategic investments will be made in agricultural research, innovation, entrepreneurship, commercialization and market development.

The agriculture, agri-food and agri-product sectors are mainly focused on export markets; however, consumer demand for locally grown foods is increasing throughout Alberta. This increased demand partially stems from consumers who increasingly consider factors such as human health and environmental impacts when purchasing food. As the demand for locally grown food products continues to increase, opportunities for further diversification of the agricultural industry may arise. The demand for locally grown food products is met in part by the region's greenhouse industry – in 2011, more than 50 per cent of the total provincial greenhouse area was located in the South Saskatchewan Region, the majority of which was dedicated to growing vegetables.

The South Saskatchewan Region contains almost 65 per cent of Canada's irrigated lands, though irrigated agriculture represents less than five per cent of Alberta's cultivated land base. Despite this statistic, the sector is highly diversified, growing more than 50 different crop types that contribute between 18 and 20 per cent of the agricultural Gross Domestic Product for the province (Alberta's Irrigation: A Strategy for the Future Agriculture and Rural Development, 2014). In support of this significant contribution, both the soils and topography east of the 5th meridian (i.e., approximately east of Highway 22) were assessed and classified in the early 1980s for the development of a planning-level irrigation suitability map for southern Alberta (including portions of the Red Deer Region). Knowledge of irrigation suitability in an area with a relatively long growing season and high temperatures will continue to provide a significant advantage for both primary production and value-added opportunities throughout the region.

Beyond greatly increased crop yields, the reliable supply of quality water through the region's irrigation infrastructure also supports food, feed and bio-industrial processing plants. This, along with proximity to meat packing facilities for both domestic and export markets, explains why much of Alberta's cattle finishing industry exist in the South Saskatchewan Region. Irrigation infrastructure also provides water to more than 50 towns and villages as well as countless wildlife habitat areas and recreation facilities (e.g., San Francisco Lake, Lake Newell) throughout the region. As competing demands for water will only grow in the future, irrigation districts, private irrigators and government agencies will continue to deliver advice, regulatory administration and strategic recommendations in order to facilitate the responsible management and use of water delivered through irrigation infrastructure to enhance productivity in this sector while recognizing the need to strategically provide water to other users, such as industry and municipalities.

With respect to environmental health, agricultural producers currently employ a number of practices (such as completing soil analyses and Environmental Farm Plans) to identify environmental risk(s) associated with their operations. The Government of Alberta is also exploring environmentally responsive solutions and opportunities to reduce the environmental risk of agricultural operations while ensuring the agriculture industry remains competitive and continues to enjoy social license to operate. Working with all levels of government, the Government of Alberta is developing integrated environmental policy and continues to facilitate the adoption of beneficial management practices that protect or enhance the environment while meeting climate variability, land-use, air and water objectives. This is accomplished through supporting extension programs and services, research-based information and innovative business tools.

In addition to cultivated lands, the region also has significant native rangelands that not only support the livestock sector, but provide many environmental benefits (such as maintaining the ecological health of the native prairie). The stewardship role of the holders of grazing dispositions has been essential in maintaining the value of these landscapes. Grazing has significant economic importance for the province's livestock industry – within the South Saskatchewan Region there are more than 2,500 public grazing dispositions that annually provide approximately 925,000 Animal Unit Months of grazing. These grazing dispositions continue to support the operational sustainability of many of the livestock producers and rural communities throughout the region.

Energy

Alberta is a global energy leader, with a diverse energy portfolio in both renewable and non-renewable resources. Energy revenues account for almost one third of the revenue allocated under Alberta's provincial budget. In 2012 alone, energy contributed over $83 billion towards Alberta's total real GDP[4]. Many employment opportunities are generated by the energy industry and average hourly earnings for workers in individual energy sub-sectors are substantially higher than the provincial average[5].

Alberta is Canada's largest producer of natural gas. In 2011, Alberta produced 71 per cent of Canada's total natural gas production[6]. For the 2012-13 fiscal year, natural gas and byproduct revenue was about $954 million, or approximately two and a half per cent of revenues to the Government of Alberta[7]. A significant amount of this natural gas production occurs in the region and nearly half of all Alberta's natural gas wells are drilled there. The levels of employment in the region correlate directly with conventional oil and gas investment, as this region is host to a large share of the roughly 40,000 full-time and part-time jobs (2012) in conventional oil and gas extraction generated by the province's natural gas and conventional oil industry[8].

4 Alberta Enterprise and Advanced Education, 'Highlights of the Alberta Economy 2014'

5 Cansim, Labour Force Survey, Statistics Canada, 2005

6 Alberta Enterprise and Advanced Education, 'Highlights of the Alberta Economy 2012'

7 www.energy.alberta.ca/OurBusiness/Gas.asp Energy

8 Statistics Canada tables no. 383-0030 and 282-0061

Conventional oil plays an important role in supporting the regional economy. For the fiscal year 2012-2013, conventional oil royalties accounted for approximately $1.9 billion in revenues to the Government of Alberta[9], with much of the conventional oil development occurring in the region. Significant oil reserves remain in Alberta that can be unlocked using innovative extraction techniques, such as the horizontal drilling of wells, which includes the use of multistage fracturing technology.

Enhanced oil recovery (EOR) using gas injection (e.g., nitrogen, carbon dioxide and/or natural gas) provides the opportunity to recover more oil from certain mature pools and reduces the amount of water used for injection. EOR largely leverages existing infrastructure rather than creating new surface disturbance, thus also reducing the need for new energy development and the associated disturbance.

Shale-related resource development for oil, natural gas liquids and natural gas also makes use of new horizontal drilling and multistage fracturing technology. The potential for shale development is widespread through the region and is comprised of extensive conventional plays.

The Government of Alberta is continuing to explore development opportunities for our abundant coal deposits. Given the current and anticipated future global demand for coal, particularly from Asian markets, maintaining opportunities for responsible development of coal resources is important to the region and the province. The mountains and foothills in the western part of the region, as well as the plains in the east, have significant coal fields with good potential for development.

The metallurgical coal potential in the region is of significance in that the coal can be used in the steel-making process. For many developing or expanding countries, steel will be an essential component for infrastructure and Alberta's metallurgical coal could help meet those demands. Exploration and investment for coal near the Municipality of the Crowsnest Pass in the eastern portion of the region has increased over the past five years and demonstrates the future potential for coal development in the region. Ensuring opportunities for coal exploration and development in the region will create economic diversification opportunities and export markets for Alberta coal and mineral resources and will result in increased employment in the region.

Mineral commodities currently produced in the region include significant limestone and silica from the Front Ranges (primarily the Exshaw quarry and plant near Canmore) and sulphur. It is believed that any future metallic mineral development in the region will be achieved using in-situ methods. These include prospective uranium deposits in the south-southeastern part of the region. Other mineral commodities with development potential include

9 Alberta Energy, Budget 2014-15.

magnetite deposits in the Crowsnest Pass area, (e.g., Burmis magnetite project). The Alberta Geological Survey has identified lead, zinc, copper and silver mineralization in the region along the Alberta-British Columbia border which requires further exploration and study to assess their economic potential. In the Medicine Hat area, several companies are actively exploring for potash with exploration focused on defining mineral grade and extent. The region also includes a number of major industrial facilities that produce a variety of petrochemical and chemical products, including ammonia, methanol, ethylene glycol, alpha olefins, nitrogen/oxygen and ammonium nitrate.

The region also hosts industrial minerals occurrences that include building stone, different qualities and quantities of limestone, sandstone, granite and shale; and minerals such as gypsum, salt and sulphur. These are increasingly important mineral commodities with applications in the agriculture, construction, landscaping, manufacturing and chemical sectors.

There are important lime plants in the region near Exshaw and in Crowsnest Pass. These plants produce more than two million tonnes of cement each year and play an important role in cement manufacturing both in Alberta and across the Prairie provinces. Lime is also used as an ingredient in the extraction of bitumen in Alberta's oil sands. These plants provide long term jobs in the area and benefit the local municipality in terms of municipal tax revenue and other associated economic benefits.

Access to electricity facilitates long-term economic development in the province and a robust, reliable and efficient transmission system is required. Transmission infrastructure is a public good that must be available in advance of need and be able to accommodate the addition of new generation to meet the demands of and provide support for Alberta's long-term growth. There are a number of transmission projects under development in southern Alberta with the most notable being the South Area Transmission Reinforcement and the Foothills Area Transmission Development. A number of these transmission projects are to connect current wind power projects to the power grid and to enable the continued development of wind energy in Southern Alberta.

Renewable Energy

The region has a natural advantage for the development of renewable energy (e.g., wind, bioenergy, solar, hydro) sources. To enable the integration of more renewable energy and reinforce the transmission system in the region, the *Electric Statutes Amendment Act* has set the framework for the Alberta Electric System Operator to be responsible for the economic planning and the safe, reliable operation of the Alberta Interconnected Electric System. Provincial policy direction and programs related to renewable energy are

provided through Alberta's Climate Change Strategy, the Provincial Energy Strategy, the Bioenergy Infrastructure Development Program and the Nine-Point Bio-Energy Plan. The Government of Alberta also focuses on renewable and alternative energy research, supporting the development and delivery of alternative and renewable energy sources through Alberta Innovates – Energy and Environment Solutions.

As of April 2013, Alberta had a total of 16 wind farms with 1,087 megawatts of wind capacity connected to the transmission system[10] – enough capacity to serve over 970,000 homes[11]. Of these wind farms, 14 are located in the South Saskatchewan Region with a total estimated capacity of 855 megawatts[12]. As well, approximately 13 new wind projects are under development or planned for the region[13].

Bioenergy is any renewable energy or fuel derived from biological sources. Alberta has several potential bio-feedstocks including agricultural products (e.g., wheat, canola), forestry waste and livestock waste. This biomass often requires expensive management practices to reduce its environmental impacts; however, a suite of emerging and established technologies has the potential to convert this waste to renewable sources of energy, including renewable fuels.

Currently, the province's standard requires an average of two per cent renewable diesel (e.g., biodiesel) in diesel fuel and five per cent renewable alcohol (e.g., bioethanol) in gasoline sold in Alberta. A 66 million-litre biodiesel facility has recently been constructed in Lethbridge. As well, a 2.8 megawatt biogas facility in the County of Lethbridge became operational in 2013. This facility creates enough energy to power about 2,800 homes. The capture of biogas from waste water treatment facilities, landfills and waste management lagoons is being used to help meet the energy requirements for the companies operating these facilities with excess energy being provided to the provincial energy grid. Biogas can also be used as a waste management solution for manure and other organic wastes.

10 Alberta Electrical System Operator Current Supply Demand Report, April 2013

11 Alberta Energy Wind Power Fact Sheet, August 2011

12 Alberta Electrical System Operator Current Supply Demand Report, April 2013

13 Alberta Electrical System Operator Project List, March 2013

Forestry

Forested lands in the Green Area make up 16 per cent of the South Saskatchewan Region. Of this, 48 per cent is actively managed for timber. The Government of Alberta allocates this production on public lands through timber permits, timber quotas and forest management agreements (FMAs). Under an FMA, forest companies have obligations for forest management planning in keeping with the principles of sustainable forest management and in considering a range of social, economic and environmental factors (e.g., watershed function, wildlife habitat). In addition, the Government of Alberta actively monitors, detects and manages any significant forest health issues that threaten values provided by the forest including timber and ecological functions.

The continued economic viability and competitiveness of the forestry industry is a key economic driver in the region, providing employment opportunities for local residents. Within the South Saskatchewan Region there is one major FMA holder, two community timber programs and four coniferous timber quotas. There are also small manufacturing facilities in the region including sawmills, round-wood processing facilities, log home manufacturers and remanufacturing plants.

Managing for a healthy, resilient forest is important to support biodiversity. Healthy, resilient forests support a dynamic forest industry and community stability over the long term. Forest management plans are developed using an integrated planning approach which incorporates watershed function, aesthetics, fisheries, wildlife, pest risk and damage, wildfire, recreation and grazing values. The long-term sustainability of a healthy forest is achieved with plans forecasting 200 years, or two harvest rotations. Also incorporated in these forest management plans are specific management objectives and strategies to carry out the required reforestation activities following timber harvest.

The Government of Alberta also actively promotes the diversification of the forest industry through the implementation of the Alberta Forest Products Roadmap to 2020, which will ultimately identify opportunities to diversify the sector through new markets and products, including the bioenergy sector.

Transportation

Transportation systems are crucial to the movement of people and goods within and outside the South Saskatchewan Region. They are important components to securing the region's economic future and to supporting its communities and families. A key aspect of land-use planning is to ensure there are opportunities for all modes of transportation. The timely development of transportation infrastructure will be needed to accommodate changes in economic activity, regional demographics, lifestyles and technologies.

The Government of Alberta leads the planning, construction and preservation of Alberta's provincial highway network by connecting communities and supporting economic and social growth. The government adopts cost-effective and efficient ways to provide essential transportation infrastructure for Albertans, including innovative alternative delivery options. The Government of Alberta is also developing an integrated multi-modal (road, rail, air, port, active and public transit) transportation system and facilitating regulatory harmonization initiatives at all levels of government.

The government continues to implement the Traffic Safety Plan 2015 to improve traffic safety and ensure that effective driver and traffic programs, services and standards are in place. The Government of Alberta works with

various community partners to enhance early response capacities as well as identify and strengthen essential transportation infrastructure. Provincial grants are provided to help municipalities develop and preserve their transportation systems and increase public transit to reduce greenhouse gas emissions.

The Government of Alberta has a long-standing interest in maximizing the efficiencies of land development throughout Alberta. Beginning in the 1960s and 1970s the government began planning for transportation utility corridors around the cities of Calgary and Edmonton. These facilities, now nearly complete, are examples of how stakeholders have worked together to meet their individual needs while minimizing land disturbance through the co-location of linear infrastructure. The Government of Alberta will continue this efficient and progressive land-use planning practice as opportunities arise.

Substantial investment in transportation infrastructure in the South Saskatchewan Region has contributed to the region's economic and social prosperity. Continued investment will be required to support key industries such as forestry, agriculture, energy and recreation and tourism, as well as to provide linkages between and within rural and urban communities. The Government of Alberta, through its transportation planning process, has identified potential future capital projects in the order of $4 billion for the region. These projects include highway twinning, interchange development and bypasses (see Appendix A – Transportation Initiatives Under Consideration). The development of these projects will be undertaken as needs arise and funding becomes available, demonstrating the Government of Alberta's on-going commitment to the needs and safety of the travelling public in the region.

Surface Materials (Aggregates)

Aggregates include sand (including silica sand), silt, gravel, clay (manufacturing and non-manufacturing), topsoil and marl. Aggregate mining takes place across the region including in areas such as the Bow Corridor, west of Calgary. There is also a brick plant located near Medicine Hat. Demand for these products is expected to rise with an increasing population, economic growth and land development.

Tourism

A Pathway to Growth: Alberta's Tourism Framework: 2013-2020 has been developed to focus the tourism industry on enhancing the quality of Alberta's tourism experiences. The framework will create and market new and enhanced authentic Alberta tourism experiences and will serve to integrate tourism planning, development, marketing and management activities at both the provincial and regional levels. Access to public land to facilitate a range of tourism development activities and experiences, from recreational trail

development to four-season destination resorts and the need for enhanced policies that are supportive of tourism experiences and development are highlighted in the framework.

Through tourism activity in the region, communities and Albertans benefit from a range of economic, social and environmental benefits. Additionally, recreation infrastructure and tourism investment has been shown to be key for rural areas to retain residents and support economic diversification. The growth and sustainability of existing tourism operations and the innovative development of new tourism products, experiences and destinations also supports the retention of vacation dollars within Alberta and ensures the continued appeal of the province to existing and emerging domestic and international markets.

Albertans and visitors are drawn to the natural landscape, recreational and cultural opportunities and human history of Southern Alberta. The region accounts for 34 per cent of annual provincial tourism expenditures[14]. The total income created by tourism in the region is $2.4 billion. This total includes: $1 billion of direct income and $1.4 billion of indirect and induced income[15] (from Alberta residents, other Canadians, Americans and oversees visitors). These tourism expenditures primarily represent new money into the region that would not have occurred had tourists chosen to visit other locations.

Three United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Sites are found in the region: Dinosaur Provincial Park, the Head-Smashed-In Buffalo Jump complex and Waterton-Glacier International Peace Park. Other major nature-based tourism attractions include Kananaskis Country, the Canadian Badlands, Crown of the Continent and Cypress Hills and Writing-on-Stone Provincial Parks. Areas such as Frank Lake, which is recognized as one of the best birding venues in the Calgary area and Lake Newell which is the warmest and largest man-made lake in Alberta and offers some of the best fishing and sailing opportunities. Equestrian trail-riding provides opportunities to connect visitors to Alberta's history and experience areas with otherwise limited access. The commercial trail-riding and horse outfitting industry in this region attracts Albertans and tourists and offers this recreational opportunity in the montane, sub alpine and grasslands.

The Canadian Badlands, Southwest Alberta and Kananaskis regions have been identified as important tourism destination areas with potential to become major international tourist draws for Alberta.

The Canadian Badlands span about 90,000 square kilometres in southeast Alberta stretching from Stettler in the north to the Montana border in the south and in the west from just east of Highway 2 to the Alberta/Saskatchewan border in the east. The Canadian Badlands region has landscapes and scenery ranging from river valley badlands to un-glaciated hills, hoodoos to

14 The Economic Impacts of Tourism Expenditures in the LUF Regions of Alberta (2011 Data).

15 The Economic Impacts of Tourism Expenditures in the LUF Regions of Alberta (2011 Data).

huge skies and natural and cultural features including the largest dinosaur bed in North America, a UNESCO World Heritage Site, with a rich aboriginal history. The strategy for developing the Canadian Badlands incorporates building on the region's existing strengths, keeping visitors in the region longer and moving visitors throughout the region - with the goal of realizing the economic benefits of tourism[16].

The Southwest Alberta region spans about 17,000 square kilometres in southwest Alberta including 15 communities stretching from Nanton in the north to Waterton Lakes National Park and the Montana border in the south and in the west from the BC border to just past Highway 2 to the east. The southwest Alberta region has landscapes and scenery ranging from the ranchlands and foothills to the majestic peaks of the Rockies, barley fields to big skies and natural and cultural features encompassing the Crown of the Continent that have been recognized by National Geographic as some of the world's most pristine and unspoiled treasures, including two UNESCO World Heritage Sites with rich aboriginal and natural history.

The Kananaskis region has the potential to become Canada's premier mountain sports playground and internationally recognized four-season destination. It spans about 6,000 square kilometres on the western edge of Calgary, stretching from the Red Deer River in the north to Plateau Mountain in the south and from the Banff border in the west to the scenic Cowboy Trail in the east. The Kananaskis region has impressive natural landscapes offering limitless outdoor activity across an expanse of majestic provincial parks, wildlands and recreational areas. Its boundaries range from rolling foothills where rushing creeks cascade through forests of aspen, pine and spruce, to knife-edge limestone ridges and jagged summits that cradle glaciers and sapphire-blue alpine lakes. The Kananaskis region will continue to attract many Albertans and grow as a destination for world-class conventions and World Cup mountain biking, cross-country skiing, ski-cross and climbing competitions.

Outdoor recreationalists spend a substantial amount of money on their recreational activities. For example, in 2009 snowmobiling enthusiasts spent $111.3 million on new snowmobiles, accessories, parts and clothing and another $254.7 million on operating and maintaining these vehicles and on tourism-related activities[17]. With the number of off-highway vehicles (OHVs including ATV-tracked, quads, motorcycles and snowmobiles) registered in Alberta rising from 37,042 in 1987 to 138,177 in 2010[18] and the number of recreational vehicles (RV's) registered in Alberta increasing by 23 per cent since 2005, providing areas for people to visit and recreate is important and linked to the economic diversification of the region.

16 www.canadianbadlands.com/cbl

17 Economic Impact of Snowmobiles in Alberta in 2009

18 Alberta Registries registration system 1987 to 2010

Ecosystems and Environment

Air Management

An air zone that aligns with the South Saskatchewan Region boundaries has been delineated as part of Alberta's implementation of the national Air Quality Management System. Place-based management is central to the Air Quality Management System and air zones for air quality reporting and management across the province have been delineated in alignment with the regional boundaries of the Land-use Framework.

Three local airshed organizations contribute to air quality monitoring and management in the South Saskatchewan Region. The Calgary Region Airshed Zone and the Palliser Airshed Society together cover more than half the region. The Parkland Air Management Zone, which largely covers the Red Deer Region, extends its southern tip into the Crossfield-Carstairs area of the South Saskatchewan Region.

Air quality in the region is influenced by climate and weather systems as well as activities occurring inside and outside of the region. Activities in the region, including building and home heating, road construction operations, transportation, agriculture and industrial facilities are associated with emissions of a variety of substances, including, volatile organic compounds, nitrogen oxides, sulphur dioxide, hydrogen sulphide, fine particulate matter, substances that lead to ground-level ozone and others.

The air quality in southern Alberta is generally rated as "low health risk," according to the Alberta Air Quality Health Index (AQHI). Implemented in Alberta in 2011, the index is a tool designed to help people understand what ambient air quality means to their health and the health of others. In the South Saskatchewan Region, there are three communities where the AQHI is reported: Calgary, Lethbridge and Medicine Hat. In each of these communities, the AQHI is reported in real time and forecasted for the current day, evening and the next day.

Currently the largest source of greenhouse gas emissions in the province is coal-fired electrical generation facilities. Although the South Saskatchewan Region does not currently contain any of these facilities, the growing population of the region is contributing to the increased demand for electricity, much of which is generated by coal-fired facilities.

Human-caused greenhouse gas emissions are also generated from natural gas-fired electrical generation facilities and the production and burning of fossil fuels for activities such as transportation, heating and use by industry, all of which have increased with the rising population.

Air Quality

Volatile organic compound
A large group of chemicals containing carbon and hydrogen atoms that can react quickly to form other chemicals in atmosphere.

Nitrogen oxides (NO_x)
A general term pertaining to compounds of NO, NO_2 and other oxides of nitrogen, typically created during combustion processes.

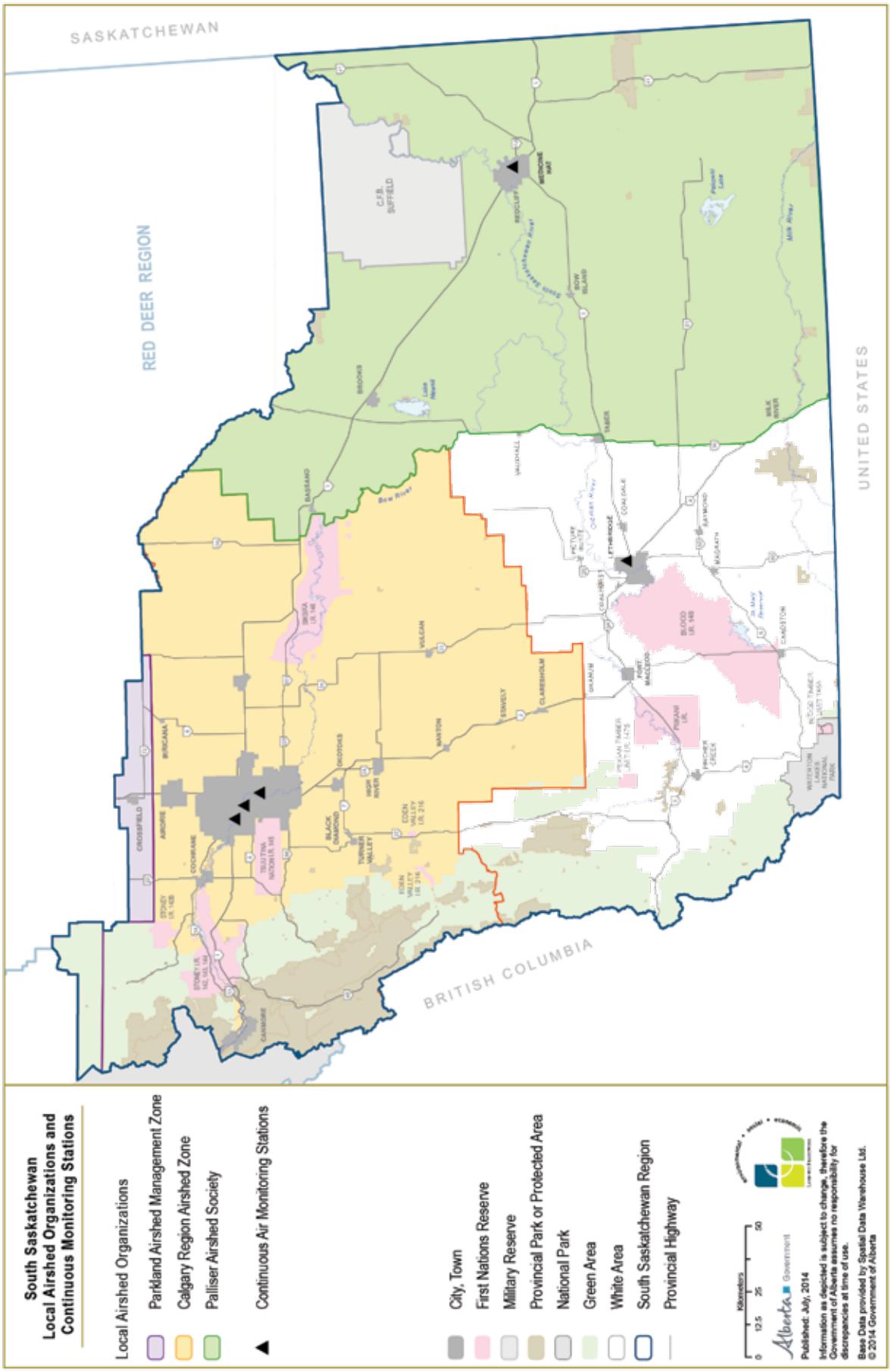
Sulphur dioxide (SO_2)
A strong smelling, colourless gas that is formed when fossil fuels, such as coal and natural gas, are burned.

Hydrogen sulphide (H_2S)
A colourless gas with a rotten egg odour emitted from both natural and industrial sources.

Fine particulate matter ($PM_{2.5}$)
Tiny particles in the atmosphere that are smaller than 2.5 microns, derived from both solid matter and liquid aerosols, that may form in the atmosphere or be emitted by any combustion source including automobiles, industrial and wood burning.

Ozone (O_3)
A light blue gas with a sharp odour that is found in the upper atmosphere (ozone layer) and formed near the ground by a reaction involving oxides of nitrogen (NOx) and volatile organic compounds (VOCs) in warm, sunny conditions.

Map 1: Local Airshed Organizations and Continuous Air Monitoring Stations



Landscapes and Biodiversity

The South Saskatchewan Region contains diverse landforms, vegetation and species. The region spans four of Alberta's six Natural Regions including the Grassland, Parkland, Foothills and Rocky Mountains. The Grasslands are dominated by a diverse and unique native prairie, extensive riparian cottonwood forests and broad plateaus within the Cypress Hills and Milk River Ridge. The Parkland region in the north represents the transition area between grasslands and forests. A small portion of the Foothills lies within the South Saskatchewan Region along the eastern edge of the Rocky Mountains. The Rocky Mountain region that runs along the Continental Divide is characterized by grasslands, shrubs, forests and alpine areas above the tree line.

A wide range of fish, wildlife and plant species exist in the region, including: 17 sport fish species; over 700 vascular plant species; numerous songbirds, hawks, owls, waterfowl and grouse; and mammals such as moose, deer, pronghorn, wolves, grizzly bears, cougars and lynx. The region also serves as breeding grounds and staging areas for birds during migration and over-wintering periods. The South Saskatchewan Region has more than 80 per cent of the province's species at risk as listed under the federal *Species at Risk Act* and the provincial *Wildlife Act*. Factors contributing to this high proportion include human settlement, disturbance from industrial, recreational and other uses, fragmentation, environmental contaminants and the introduction of invasive species.

The range of species and diversity of ecosystems across the region reflects the biodiversity found here and means there is a broad range of ecosystem services provided. Biodiversity represents the assortment of life – including the variety of genetics and species and the habitats in which they occur – all shaped by natural processes of change and adaptation. Biodiversity and ecosystem services are not the same thing but they are interdependent. Ecosystem services are the benefits humans, communities and society as a whole receive from healthy, functioning ecosystems and the biodiversity within them. Biodiversity underpins the supply of ecosystem services, so changes in biodiversity will affect the type and amount of those services available to humans.

All ecosystem services contribute to sustaining a healthy and prosperous way of life for all Albertans. Fish, wildlife, traditional medicinal plants, berries and less-developed spaces are also important for the cultural practices of First Nations peoples.

Biodiversity

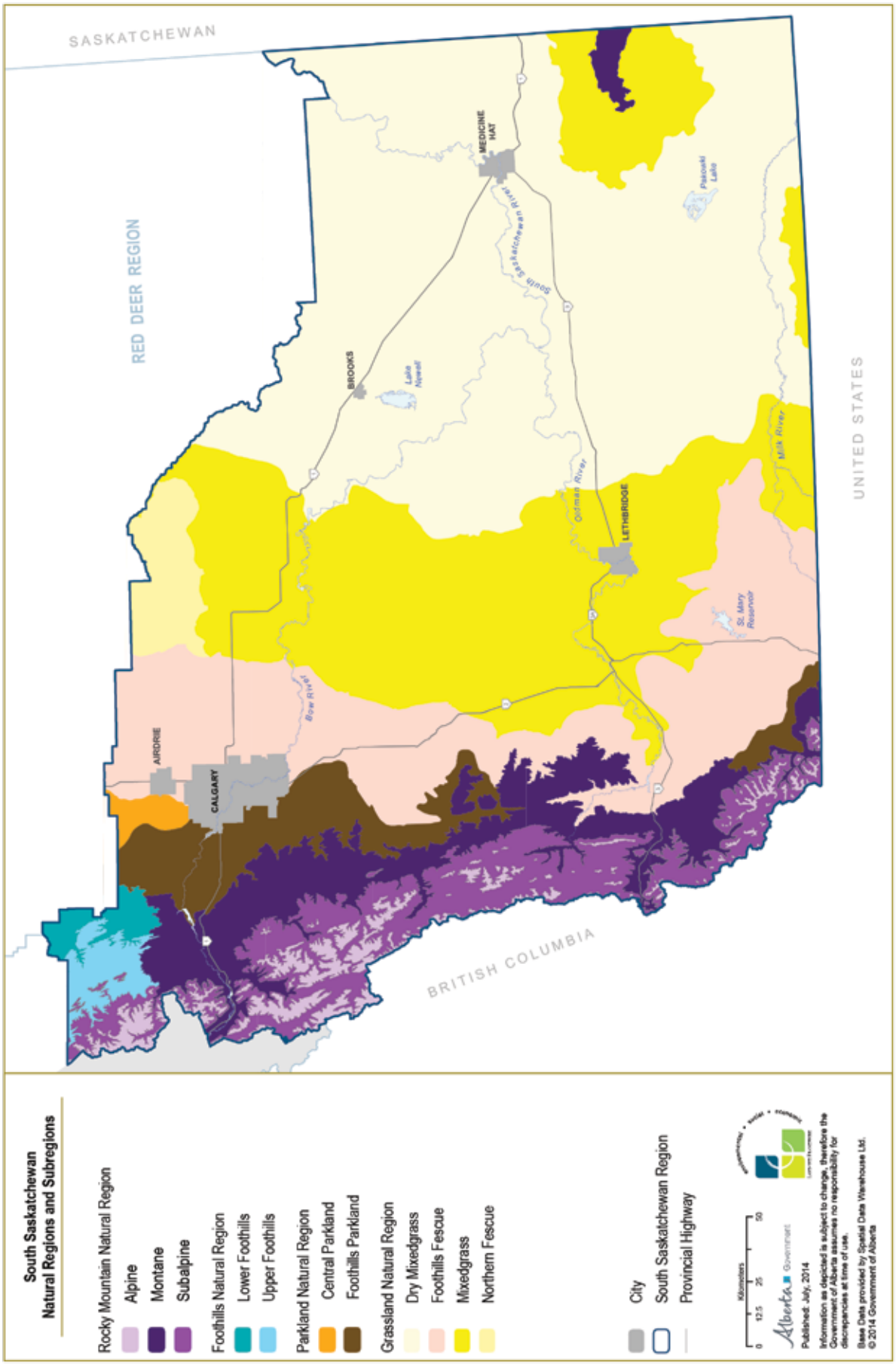
The Land-use Framework defines biodiversity as "The assortment of life on earth – the variety of genetic material in all living things, the variety of species on earth and the different kinds of living communities and the environments in which they occur".

Ecosystem Services

The following are examples of ecosystem services, the benefits that come from healthy functioning ecosystems and the biodiversity found in them:

- food, fiber, fresh water ("provisioning" services)
- flood control, water and air purification ("regulating" services)
- spiritual, recreational, cultural benefits ("cultural" services)
- nutrient cycling, soil formation ("supporting" services)

Map 2: Natural Regioins and Subregions



Water and Watersheds

The region spans the catchment areas of two major river basins: the South Saskatchewan River Basin and the Milk River Basin. These water basins are important over-wintering, spawning and rearing grounds for fish with the associated riparian habitats being major wildlife corridors.

The South Saskatchewan River Basin consists of four sub-basins including the Bow, Oldman, South Saskatchewan and Red Deer; along with their tributaries, these sub-basins drain 120,000 square kilometres of the province. The eastern slopes of the South Saskatchewan Region contain the headwaters of the Bow and Oldman rivers, which are critical to water supply and water quality in the region. Most of the Red Deer River sub-basin is not included in the region and the remaining portion of the South Saskatchewan River Basin in the planning region is about 73,000 square kilometres.

The confluence of the Bow and Oldman rivers forms the South Saskatchewan River which flows east through the region eventually draining into Lake Winnipeg in Manitoba. The Master Agreement on Apportionment transboundary agreement is in place to ensure there is appropriate water sharing between all the Prairie provinces. The South Saskatchewan River Basin contains all major urban centres, including the cities of Calgary, Lethbridge and Medicine Hat, as well as all 13 of Alberta's irrigation districts.

The Milk River originates in Montana; flows eastward through the southern portion of Alberta and then loops back into Montana as part of the Missouri-Mississippi River Basin. The Boundary Waters Treaty transboundary agreement with Montana establishes how much water must be shared for both the Milk River and the St. Mary River in Montana. The Alberta portion of the Milk River Basin is 6,500 square kilometres and is the smallest of Alberta's river basins. There are no major urban centres or irrigation districts in the Milk River Basin; however, the irrigation sector remains the largest water user in the basin.

Water quality is influenced in each basin and sub-basin by the unique features and land and water uses. All sub-basins are faced with contributions from both point and non-point sources. Generally, non-point sources are key considerations for water quality management in southern Alberta. Scientific studies indicate that severe droughts have occurred during the past 2,000 years, with an average duration of more than 10 years. At least 20 short droughts occurred during the twentieth century, including a 10-year dry period starting in 1977. The drought of the 1930s is one of the most notable and was the most severe and prolonged drought since the beginning of western settlement. On a provincial scale the 2001-2002 drought had the driest back-to-back years in 74 years.

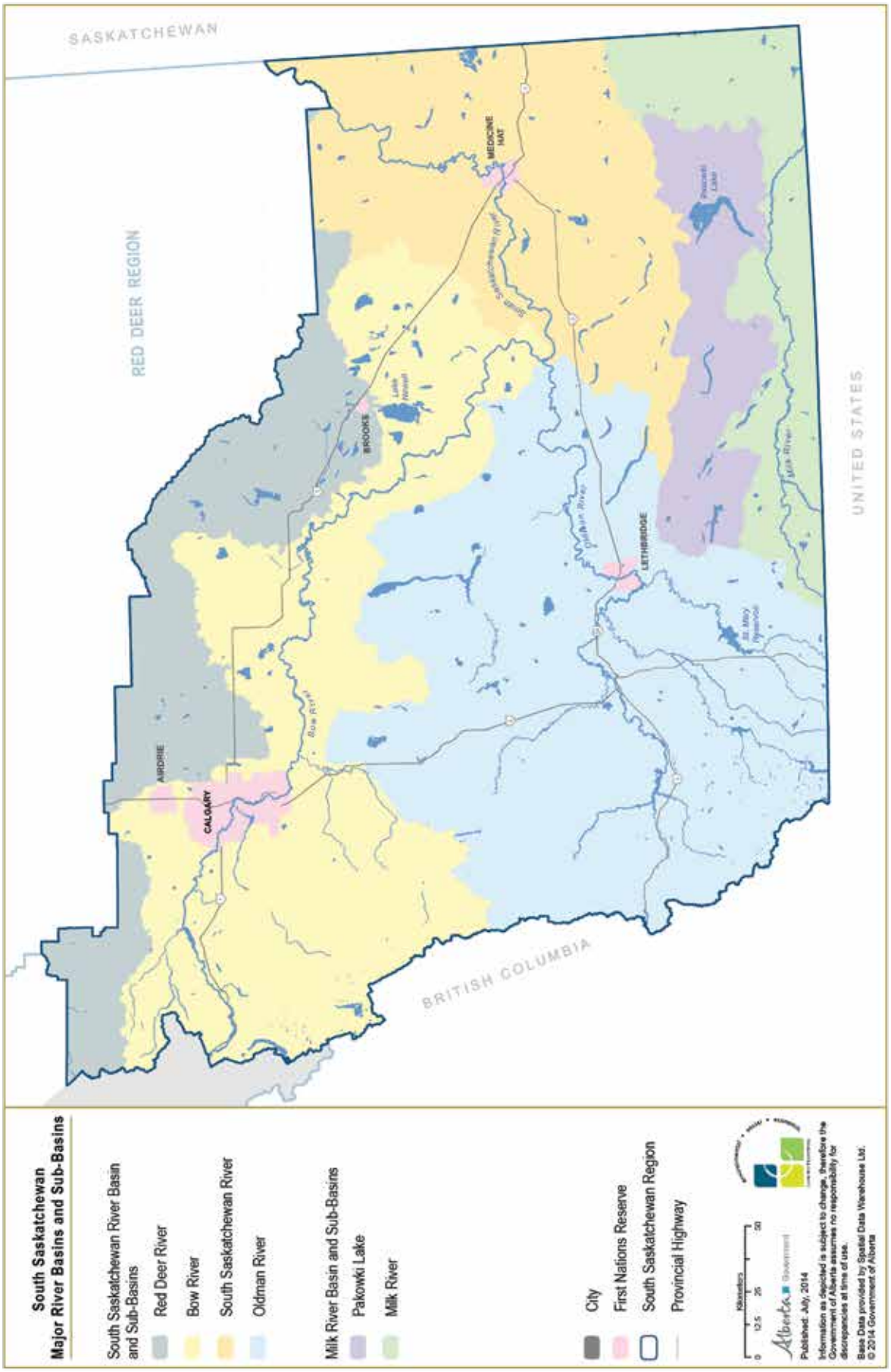
Master Agreement on Apportionment

Establishes the terms and conditions regarding water sharing with Saskatchewan. The agreement covers both water quantity and water quality.

Boundary Waters Treaty

Establishes the terms and conditions regarding water sharing with Montana. The agreement covers water quantity.

Map 3: Major River Basins and Sub-Basins



Overall, water quality in the Bow River is considered good; however, reaches downstream of Calgary have somewhat reduced water quality from the cumulative influences of human alterations to the watershed and urban point sources. The Oldman River generally has good water quality with concentrations of nutrients, bacteria and pesticides only occasionally exceeding water quality guidelines. However, concerns exist regarding the health of riparian lands and the impact of withdrawals and altered flow regimes on aquatic ecosystems.

The South Saskatchewan River similarly has good water quality with occasional exceedances of nutrients, but is affected by negative impacts on riparian lands. Water quality in the Milk River is reported to be generally good (with the exception of certain tributaries) with the largest influence on water quality coming from enhanced water flows diverted through Alberta from the United States under the provisions of the Boundary Waters Treaty.

Pressures on water resources in the South Saskatchewan Region are significant. There are currently more than 20,000 water allocation licences and registrations, serving approximately 1.8 million people and a mix of institutions and industries. Among the major users is the agriculture industry, notably irrigation, which accounts for 75 per cent of total water allocation volumes in the region. This is supported by significant investments in water infrastructure. As actual water use accounts for only a portion of allocation (55 and 66 per cent for municipal and irrigation use, respectively), actual consumption can be expected to increase as existing allocations are more fully utilized to meet the demands of growth. These demands and the resulting pressure on water resources are compounded by periods of natural low flow and drought experienced periodically by the region.

Historic and current land uses have placed pressures on the watersheds within the South Saskatchewan Region. Degradation of riparian lands and loss of wetlands across the prairies have been widespread, contributing to altered flow regimes and degraded water quality.

Watershed Planning and Advisory Councils and watershed stewardship groups bring key stakeholders together to co-create adaptive watershed management plans. They have successfully undertaken collaborative work to develop objectives for wetlands, water quality, water quantity, riparian lands, headwaters, land-use, non-point source pollution and groundwater. Their collaborative work on watershed management plans, state of the basin reports and other scientific studies has led to improved watershed health.

Flooding of the major rivers and their tributaries in southern Alberta has resulted in large economic costs in recent decades. Major floods occurred in 1995, 2005, 2010 and most notably in 2013. Although flooding is a natural occurrence that can provide benefits to the environment, land-use development and infrastructure in flood hazard areas has resulted in significant damage when flooding occurs.

Watershed Planning and Advisory Councils in the region:

- Bow River Basin Council
- Milk River Watershed Council Canada
- Oldman Watershed Council
- Red Deer River Watershed Alliance
- South East Alberta Watershed Alliance

Compared to surface water, groundwater is presently not a major source of water in the South Saskatchewan Region; however, there may be growing pressure placed on groundwater resources in the Bow, Oldman and South Saskatchewan river sub-basins since new surface water allocations are no longer available for most water uses. The reason for this is that all unallocated water was reserved by the Crown in 2007 under the Bow, Oldman and South Saskatchewan River Basin Water Allocation Order and the Allocation Order only permits unallocated surface water to be used (licensed) for purposes specified in the Order (such as First Nation use on reserve).

Pressures on groundwater quality exist in localized areas across the region, with the associated potential for contamination of aquifers. Once an aquifer becomes contaminated, remediation is extremely difficult and expensive. Consequently, groundwater must be treated as a valuable resource that requires protection. Understanding recharge areas and the connection between surface water and groundwater is important for water management in southern Alberta.

Historic Resources

The South Saskatchewan Region possesses a remarkably diverse natural and cultural history. The historic resources that embody this heritage are inextricably tied to the landscape. The South Saskatchewan Region contains a wealth of archaeological sites, the greatest concentration of palaeontological sites in Canada, a vibrant aboriginal heritage and diverse historic sites that define its unique character.

Increasing development and recreation are impacting these important historic resources. In order to preserve and protect historic resources, developers are required to submit, for review, their land-based development proposals for evaluation. Ensuring the integrity of historic resources before, during and after development allows future generations to continue to benefit from Alberta's rich past while realizing future potential.

Environmental Management

The cumulative effects of population growth and economic development in the region are placing increasing pressures on the region's air, water, land and biodiversity. The Government of Alberta is committed to responsible development and the province's current environmental management system is intended to reduce and minimize the impacts of development on the environment. This system is supported by provincial policy, legislation, regulations and codes of practice which are implemented using a full range of both regulatory and non-regulatory tools.

Provincial Legislation

- ***Agricultural Operation Practices Act*** – Provides a process for managing nuisance complaints resulting from agricultural activities and establishes a system for regulating manure management and permitting of Confined Feeding Operations (CFOs). Regulations under the Act define siting and construction standards for CFOs and Seasonal Feeding and Bedding Sites, as well as manure management requirements for all agricultural operations that handle manure.
- ***Alberta Land Stewardship Act*** – Provides the legislative foundation for land-use planning in Alberta.
- ***Climate Change and Emissions Management Act*** – Provides for the management and reporting of emissions of carbon dioxide, methane and other specified gases and requires measurable reductions in greenhouse gas emissions for specified activities.
- ***Environmental Protection and Enhancement Act*** – Provides for the assessment and regulation of activities to minimize their environmental impacts, based on principles that include continuous improvement and pollution prevention. Activities are designated based on their level of risk, with higher-risk activities subject to increasing levels of regulatory oversight.
- ***Fisheries (Alberta) Act*** – Provides for the licensing of fishing activities as well as measures to protect fish health; provides licenses for aquaculture, fish import, fish stocking, research and commercial fish processing.
- ***Forests Act*** – Provides for the sustainable management of Alberta's forests, including a legislated requirement for reforestation.
- ***Forest and Prairie Protection Act*** – Establishes the provision of wildfire management activities, programs and wildfire-related enforcement.
- ***Forests Reserves Act*** and regulations – Provides for the establishment of Forest Reserves.
- **General Fisheries (Alberta) Regulation** – Provides for fish harvest quotas, fishing seasons and fishing methods and addresses fish stocking and possession.
- ***Historical Resources Act*** – Provides for the responsible preservation, interpretation and promotion of the appreciation of Alberta's historic resources, as well as contributing to the regulation and approval of land development.
- ***Irrigation Districts Act*** – Provides for the formation, dissolution and governance of irrigation districts in order that the management and delivery of water in the districts occur in an efficient manner that provides for the needs of the users.
- ***Mines and Minerals Act*** – Governs the management of rights in Crown-owned minerals, including the levying and collecting of bonuses, rentals and royalties.

- ***Municipal Government Act*** – Provides the legislative framework to guide the operations of municipalities.
- **Provincial parks legislation** – (*Provincial Parks Act* and *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act*) – Plays an important role in protecting natural diversity and intact habitat for supporting biodiversity, in addition to ensuring a wide range of recreation opportunities and tourism experiences.
- ***Public Lands Act*** **and Public Lands Administration Regulation** – Provides for the setting of land disturbance standards and land conservation tools in support of biodiversity management.
- ***Responsible Energy Development Act*** – Provides for a more efficient and effective system for landowners, industry and the environment through a single regulator for oil, gas, oil sands and coal development.
- ***Soil Conservation Act*** – Provides a framework for encouraging sound soil conservation practices, to preserve Alberta's agricultural land base and to ensure long-term productivity in the farming sector.
- ***Water Act*** – Provides for the allocation and use of Alberta's water resources and the protection of rivers, streams, lakes, wetlands and aquifers.
- ***Weed Control Act*** – Regulates noxious weeds, prohibited noxious weeds and weed seeds through various control measures, such as inspection and enforcement. Additionally, it mandates the licensing of seed cleaning plants and mechanisms.
- ***Wildlife Act*** – Provides for restrictions to protect as well as manage harvests of wildlife, addressing possession, sale and movement of wildlife and controlled animals and designation and recovery of species at risk. Adds safety provisions addressing the use of firearms and other weapons in hunting.

Provincial Strategies

In addition to legislation, a number of provincial strategies provide high-level direction on air, water, land, biodiversity and historic resource management goals and how Alberta will achieve these goals. More detailed operational policies take their direction from these higher level strategies and legislation and translate them into more clearly defined expectations.

Alberta has a strong water management system in place. Since 2003, the Water for Life strategy has provided a roadmap to achieving provincial goals of a safe, secure drinking water supply; healthy aquatic ecosystems and reliable quality water supplies for a sustainable economy. To fulfill these goals, the strategy revolves around the three key directions of knowledge and research, partnerships and water conservation.

The Approved Water Management Plan for the South Saskatchewan River Basin recognizes that the limit of water resources has been reached in the Bow, Oldman and South Saskatchewan River sub-basins. This plan establishes water conservation objectives for these three sub-basins and prohibits new applications of surface water except for certain uses in accordance with the Bow, Oldman and South Saskatchewan River Basin Water Allocation Order. Water management and allocation in the South Saskatchewan Region must accommodate commitments made under water-sharing agreements.

The Clearing the Air: Alberta's Renewed Clean Air Strategy reaffirms Alberta's commitment to the wise management of Alberta's air quality for the benefit of all Albertans. The strategy and action plan outline the strategic directions needed for the Government of Alberta, its partners and the public over the next 10 years, to enhance Alberta's existing air quality management system and to achieve the outcomes of the strategy.

The Government of Alberta recognizes the benefits and value of biodiversity and has worked with other provinces, territories and the Government of Canada to complete the Canadian Biodiversity Strategy. The province and other Canadian jurisdictions agreed to use the strategy as a guide for actions to conserve biodiversity and to use biological resources in a sustainable manner. A provincial biodiversity strategy, Alberta's Biodiversity Policy, is under development and will support these national and international outcomes. The province delivers and supports many existing programs, initiatives and tools that benefit biodiversity and landscapes, often in partnership with individuals, organizations, the private sector and other governments. Examples include species recovery plans, the Enhanced Approvals Process which outlines oil and gas development requirements, the Landscape Analysis Tool, the Grazing Leaseholders Code of Practice, forest management plans, operating ground rules and existing Public Land Use Zones to manage public access and related impacts to biodiversity and ecosystem function.

The Alberta Forest Strategy, currently under development, will describe the government's commitment to sustainable management and the economic, social and environmental responsibility for Crown forested lands. The strategy will describe an innovative and systematic approach detailing the intent and the actions needed to sustain healthy, resilient forests on public land in Alberta for generations to come.

Parks are essential to the quality of life that Albertans enjoy. They conserve our natural landscapes, protect wildlife habitat and offer a broad range of outdoor recreational and nature-based tourism opportunities. Alberta's Plan for Parks reaffirms that the provincial parks system must meet both recreation and conservation objectives (as they are inextricably linked) while recognizing that the vision for Alberta's parks is to inspire people to discover, value, protect and enjoy the natural world and the benefits it provides for current

Water Conservation Objectives
Established under the provisions of the *Water Act*. After engaging in public consultations, a designated official under the Act, a Director, can establish "the amount and quality of water necessary for the

(i) protection of a natural water body or its aquatic environment, or any part of them,

(ii) protection of tourism, recreational, transportation or waste assimilation uses of water, or

(iii) management of fish or wildlife."

Generally, a water conservation objective can be expressed in relation to a rate of flow needed or a water level needed.

Renewed Clean Air Strategy

Clearing the Air: Alberta's Renewed Clean Air Strategy articulates a shared Government of Alberta commitment to enhancing Alberta's air quality management. It is an expression of the Integrated Resource Management System and sets the Government of Alberta's focused agenda for air.

The strategy's goals are to assure that:

- The well-being of Albertan's is supported by effective air quality management;
- Air quality will maintain, protect and sustain healthy ecosystems; and
- Air quality management will continue to support economic sustainability.

The four key areas for enhancements are:

1. Regional air management including complementary management of point and non-point emission sources;
2. Shared responsibility and partnerships;
3. Integrated monitoring, evaluation and reporting; and
4. Knowledge enhancement.

and future generations. The provincial parks system consists of a spectrum of classifications from strict preservation (Wilderness Areas and Ecological Reserves) all the way through to primarily recreation (Provincial Recreation Areas). Many of the sites balance both conservation and recreation objectives (e.g., Wildland Provincial Parks and Provincial Parks).

The Government of Alberta values its heritage and endeavours to protect these resources for future generations through a land-based regulatory system. Development proposals are assessed using a variety of criteria, such as the Listing of Historic Resources and professional reviews. The Listing of Historic Resources identifies lands, both public and private, which contain or have a high potential to contain historic resources. The listing is issued twice a year and provides industry and other developers with advance notification of possible historic resource concerns. If an historic resource may be impacted, the developer may be required to conduct a study or develop an avoidance strategy. Any studies conducted are evaluated and the developer may then be required to avoid the historic resource, or conduct additional studies prior to development occurring. Lands that contain important historic resources may also be designated as Provincial/Municipal Historic Resources, which provides them with protection from undue impacts.

Environmental Management Frameworks

The development and implementation of environmental management frameworks is a new approach being used by the Government of Alberta to accomplish cumulative effects management. Management frameworks establish outcomes and objectives along with the strategies and actions to achieve them. The frameworks are intended to provide context within which decisions about future activities and management of existing activities should occur. They confirm regional objectives and establish thresholds. They are intended to add to and complement, not replace or duplicate, existing policies, legislation, regulation and management tools.

Monitoring, Evaluation and Reporting

In order to understand the effectiveness of Alberta's environmental management tools, the region's air, water, land and biodiversity conditions are monitored, evaluated and reported on. Responding to the need for more rigorous environmental monitoring, the Government of Alberta has established the Alberta Environmental Monitoring, Evaluation and Reporting Agency (AEMERA), an arm's-length organization, to oversee environmental monitoring across the province. Its centrally coordinated system will integrate the monitoring, evaluation and reporting of air, land, water and biodiversity. Specifically, AEMERA will provide monitoring reports and evaluation of ambient environmental conditions to the Minister of Environment and Sustainable Resource Development in relation to thresholds in air, water and biodiversity management frameworks established in the Implementation Plan.

Human Development

The South Saskatchewan Region has experienced significant population growth in the past 10 years, especially in urban areas, where more than 90 per cent of the population resides. Continued population growth is expected to be spurred on by the region's strong economic expansion in key sectors which will create employment opportunities for many Albertans. This growth, occurring in and around municipalities, is facilitated by a business-friendly environment and opportunities that benefit residents in the local jurisdictions.

Today and in the future, Alberta must compete in a rapidly changing global economy for resources, investment, markets and people. We must take a more deliberate and intentional approach to leveraging our advantages so that we can continue to be successful and we must start today to create those future conditions. Success requires better collaboration and coordination between government, post-secondary institutions, the research, innovation and commercialization system and the province's business sector. Government will strengthen and focus these relationships by setting common strategic objectives and outcomes that are aligned around key current and emerging economic sectors. Success requires the right people with the right skills. We will create a more efficient and relevant post-secondary system in which our institutions work together to graduate students with the knowledge and skills that they need to excel in the economy of today and tomorrow. Success requires that we identify and foster research that creates ideas and discoveries that can be transformed into products, services and processes. We will bring research, innovation and commercialization together by aligning the research and innovation system and agenda in support of government's priorities. Finally, our success requires a climate where Alberta's businesses and workers are prosperous and productive and our diverse products, services and expertise can compete in the local and global economies. Government will take a more intentional approach to economic development by providing strategic and responsive policies and tools that better connect and leverage Alberta's advantages.

Municipalities are responsible for the planning and development processes that ensure land is available for developments such as residential, commercial and industrial lands, municipal roads and water and wastewater treatment facilities to accommodate population growth. Other important social infrastructure that contributes to sustainable communities such as schools, hospitals, seniors' facilities and cultural facilities are also needed in order to contribute to the overall quality of life.

Alberta's Social Policy Framework's vision focuses on the creation of inclusive and welcoming communities, where every resident has opportunities to fulfill their potential and benefit from a thriving social, economic and cultural life[19]. Decision-makers in the region will need to deliberately cooperate and coordinate their planning to meet the physical and social infrastructure needs of their communities and to ensure the quality of life for all residents is enhanced in thriving urban and rural communities. The provision of both physical and social infrastructure, in response to growth, will require thoughtful planning in terms of how much land is needed to accommodate the region's needs over the lifespan of the regional plan. To this end, both local and provincial authorities and other stakeholders, will have to consider how best to use lands efficiently while minimizing conflicts, thus producing significant savings on infrastructure costs.

In the major metropolitan area surrounding the Calgary region, there are tremendous pressures as well as opportunities to balance the needs of population growth; namely, protecting the natural environment, regional servicing and transportation, accommodating industrial and residential growth, etc. In response to these pressures and opportunities the Calgary Regional Partnership, a voluntary organization of a number of municipalities, was formed to address these issues and to guide sustainable growth in the region.

About 15 per cent of Alberta's rural and small-town population lives in the South Saskatchewan Region. However, the region is also home to seven large urban areas: Calgary, Lethbridge, Medicine Hat, Canmore, Okotoks, High River and Brooks. Consequently less than ten per cent of the region's population is rural and small town. In response, resilient and sustainable rural communities need to be strengthened as population growth tends to be much greater in urban areas including Calgary (Rocky View County), Lethbridge (the County of Lethbridge) and Medicine Hat (Cypress County). Rural Alberta's economic contribution to Canada's economy totals more than $77 billion per year[20]. In an effort to enhance a strong and vibrant rural Alberta, an MLA task force engaged rural stakeholders in 2014, collecting input on priorities, opportunities for job growth and creation and coordination of current programs and services to enhance rural economic development. The input collected will be used towards the development of a Rural Economic Development Action Plan. In addition to the action plan, the Government of Alberta will continue to support rural strategies developed by local governments and rural community organizations that help build capacity, take advantage of new economic opportunities and enhance local innovation, connectivity and stewardship.

To enhance rural Alberta as a viable place to live, Government of Alberta programming helps to facilitate the supply of services such as high-speed internet, electricity and a safe, secure water supply to rural areas. Initiatives such as the Final Mile Rural Community Program provide funds for local

19 Alberta's Social Policy Framework, February 2013, p. 22.

20 Conference Board of Canada "Alberta's Rural Communities - Their Contribution to Alberta and Canada: Update (2013)"

government-led projects to provide access to high-speed internet in unserviced areas. Helping to reduce the high cost of conveying electricity for agricultural purposes, cost-share programs such as the Rural Electric Program provides grant assistance to those in rural areas.

Long-term water supply is a growing concern for many rural residents in Alberta, particularly in areas where groundwater supplies are limited. Building on the Water for Life strategy, water supply-related programs under federal-provincial-territorial shared funding arrangements provide and secure water supply for domestic use and future economic growth. Delivering such programs and services is a key requirement to a vibrant rural economy and population.

The continued vitality of rural Alberta is being affected by an aging farming population and a lack of young farmers and new entrants to the agriculture and agri-food industry. Young farmers and new entrants to the agriculture industry are often deterred by many factors such as high start-up costs, agricultural market risk, difficulty in transferring farm assets and competing career opportunities for both farm owners and potential employees. A consequence of more farmers retiring than entering the industry is the consolidation of farms through the purchase and/or lease of farms from retirees. As of 2011, there were 43,234[21] reporting farms in Alberta which is 13 per cent fewer than in 2006; this trend has been evident for a number of years. Offering a variety of programs and services such as financial loans, grants and extension services to young farmers and new entrants may help attract new producers and decrease the growing gap between retirees and new entrants, as well as allow for succession and growth among agricultural producers and lower the average age of producers.

Governed through the *Agricultural Societies Act*, Agricultural Societies also encourage improvements in both agriculture and in the quality of life of small agricultural communities throughout rural Alberta. These provincially funded societies operate approximately 700 facilities province-wide, including facilities such as riding arenas, hockey and curling rinks and local community halls, all in support of active and vibrant rural communities. As of 2012, there were 285 primary Agricultural Societies in Alberta that received significant provincial funding; approximately 60 of these are in the South Saskatchewan Region. In addition to the smaller community societies scattered throughout the region, there are two regional agricultural societies (the Lethbridge and District Exhibition and the Medicine Hat Exhibition and Stampede Company Ltd.) and one major agricultural society (the Calgary Stampede) that receive annual provincial funding. Along with the smaller community societies, these larger societies showcase Alberta's western and agricultural heritage and culture.

21 2011 Census of Agriculture

First Nations have a long relationship within the South Saskatchewan Region and beyond. Significant sites memorialize a way of life that continues today in song and ceremony. Traditional alliances provide meaningful opportunities for the aboriginal peoples to continue their ways of life in an autonomous fashion. Treaty 7 is a foundation for relations between First Nations and governments.

Along with all Albertans, climate, water and energy security are of particular concern for First Nations. On-going consultation, engagement and relationship building are needed to provide consistency and clarity on decisions. Alberta will work with First Nations to establish innovative outreach legacy programs and promote environmental education that is meaningful, relevant and sensitive to First Nations culture. Alberta will also explore mechanisms to allow the meaningful participation of First Nations communities in regional planning processes and implementation, with particular focus on input into the environmental management frameworks.

Some urban communities, native grasslands and forested areas in the region are at risk from wildfires. Alberta will continue its program of wildfire prevention and the Community FireSmart program to reduce wildfire hazards near communities. The FireSmart program includes education, vegetation management, legislation and planning, development considerations, interagency cooperation, cross- training and emergency planning.

Recreation, active living and sport are key components of the wellness of Albertans[22], their families and communities. Research shows that active living can help people live longer and enjoy a better quality of life as they age. There is also a growing body of research supporting the idea that access to nature is essential for the physical and emotional health of children and adults[23]. The Active Alberta policy sets out a vision where Albertans enjoy a high quality of life, improved health and wellness, strong communities, economic benefits and personal fulfillment through recreation, active living and sport. The Active Alberta policy guides government initiatives; challenges partners and encourage Albertans to become more active.

The Government of Alberta works with partners in municipalities, the not-for-profit sector and the education system to provide recreation, active living and sport opportunities where people learn, live and work. These organizations are supported through various grants and special projects to continue their work and the valuable role they play in Albertans' lives. Thirteen provincial active living associations and 103 provincial sport and recreation associations receive annual funding for this purpose.

The region provides a diversity of outdoor recreational opportunities and experiences including activities such as rock and ice climbing, back-country skiing, equestrian, hiking, photography, mountain biking, paddling, birding, eco-tourism and motorized recreation (e.g., off-highway vehicle use). The

22 Active Alberta, 2011

23 Active Alberta, 2011

demand for outdoor recreational opportunities is growing and these forms of active living are a significant aspect of the quality of life in the region.

The use of motorized recreation vehicles is popular within the region and ensures people of all ages and mobility access to the natural experiences the region offers. However, an increase in random use is contributing to environmental impacts, public safety issues and conflict between various users. Trail planning and management can direct and accommodate increased demand while helping to address these conflicts.

From the mountains to the prairies, the provincial parks system in southern Alberta offers a wide variety of outdoor recreation, nature-based tourism and educational experiences to visitors while conserving biodiversity and natural landscapes. In addition to the variety of outdoor recreation opportunities, there are also staffed interpretive programs in parks such as Beauvais Lake, Bow Valley, McLean Creek, Peter Lougheed and Writing-On-Stone as well as roving programs throughout Kananaskis Country. Generally, recreation amenities at provincial parks in the region are currently at or over capacity and demand is expected to increase as the region's population grows. Existing recreation areas in the provincial parks system within the region were developed in the 1970s for a much smaller population. As a result, many are unable to meet the increasing and changing demand for a variety of outdoor recreation experiences and do not meet the expectations or needs of today's growing population. Visitor spending in Alberta's provincial parks is estimated to be approximately $317million[24]. The Plan for Parks highlights the importance of identifying and developing opportunities for responsible and safe recreation and identifying new parks to meet provincial recreation, tourism and conservation goals.

One location that highlights the region's uniqueness is Writing-on-Stone Provincial Park which is one of the most important sacred places for the Blackfoot people and is a significant natural landscape preserving representative native grasslands for future generations. Writing-on-Stone Provincial Park was designated Áísínai'pi National Historic Site of Canada in 2004 and is included on Canada's Tentative List of World Heritage sites (i.e., it is a property considered to have cultural and natural heritage of outstanding universal value – conveyed by elements including rock art localities, related archaeological sites and a full array of significant landforms and viewscapes – and therefore a suitable candidate for inscription on the World Heritage List). There are currently five World Heritage Sites in Alberta: Dinosaur Provincial Park, Head-Smashed-In Buffalo Jump, Wood Buffalo National Park (site is partly in Northwest Territories), Canadian Rocky Mountain Parks (partly in British Columbia) and Waterton Glacier International Peace Park (partly in Montana, United States).

24 The Economic Impact of Canada's National, Provincial & Territorial Parks in 2009

Historic resources represent the natural and cultural history of a landscape that is valued for its ability to link Alberta's past with its present. Careful management and protection of these fragile and non-renewable resources in land-use development planning ensures they retain their conservation value for future generations. As an example, the region is home to 220 protected historic places and thousands of archaeological/palaeontological sites. Researching these sites and interpreting their history enhances the quality of life for the region's residents and all Albertans.

Governments and citizens share the important responsibility of safeguarding and enhancing culture for future generations. The restoration, preservation and protection of the tangible objects and intangible elements of our culture and identity are paramount to the sustainability of Alberta's strong and vibrant cultural heritage. The Government of Alberta recognizes and encourages the important role played by volunteers and non-profit organizations in governing, managing and supporting our cultural resources and continues to support provincial cultural facilities and its foundations.

Vision, Outcomes and Strategic Directions for the Region

The SSRP establishes a regional vision that describes the desired future state of the South Saskatchewan Region in a manner that adheres to the guiding principles of the Land-use Framework and is aligned, consistent and supportive of the framework's provincial vision and outcomes.

To support the achievement of the regional vision, the SSRP establishes outcomes at the regional level, as well as a set of strategic directions to further specify the priority areas of focus for the region. The vision for the South Saskatchewan Region reflects the Land-use Framework's vision of Albertans working together to respect and care for the land as the foundation of our economic, environmental and social well-being.

Vision for the South Saskatchewan Region

Southern Alberta is a diverse, healthy, vibrant and prosperous region where the natural beauty of the region is managed so that citizens feel connected to the land and its history. Albertans, industry, governments and aboriginal peoples work together to share responsibility for stewardship of the land and resources in a way that ensures current needs are met without compromising opportunities for future generations. Aboriginal peoples, through their traditional knowledge, share their intimate understanding of the region's natural environment and ecosystems.

The South Saskatchewan Region supports a diverse and growing population. Economic diversification supports employment and contributes to a prosperous future. Agriculture is a significant renewable resource industry demonstrating environmental stewardship while pursuing growth and diversification opportunities. There are continued opportunities for oil and natural gas production and renewable energy will become increasingly significant. Forests are managed with watershed management and headwaters protection as the highest priority and healthy forests continue to contribute to the province's timber supply. The region has unique landscapes that form the basis of a popular tourism and recreation destination which continues to grow.

Air, water, land and biodiversity are sustained with healthy functioning ecosystems. The headwaters in the region supply vital regional fresh water quality. Conservation strategies help many species at risk in the South Saskatchewan Region recover, while also preserving the diversity and splendor of Alberta's natural regions with various parks and conservation areas providing Albertans with improved health and inspiration to value nature.

Outcomes and Strategic Directions for the South Saskatchewan Region

To support the achievement of the regional vision, the following outcomes and strategic directions will guide the implementation of the SSRP:

OUTCOME:

The region's economy is growing and diversified – Economic growth is the key to future prosperity in the region and therefore, must be sustained through a competitive market place that is supported by continuous innovation, education, infrastructure and efficient and effective regulation.

Strategic Direction:

- Sustainable development wherein economic development takes into account environmental sustainability and social outcomes

OUTCOME:

Air quality is managed to support healthy ecosystems and human needs through shared stewardship - Understanding and managing non-point sources using a combination of both non-regulatory and regulatory tools will be important to achieving air quality objectives in this region. Air quality management will require continued collaboration with all levels of government and stakeholders.

Land-use Framework - Provincial Outcomes

- Healthy economy supported by our land and natural resources;
- Healthy ecosystems and environment; and
- People-friendly communities with ample recreational and cultural opportunities.

Strategic Direction:

- Managing air quality through continued collaboration

OUTCOME:

Biodiversity and ecosystem function are sustained through shared stewardship – The benefits received from biodiversity and healthy functioning ecosystems are critical to the ongoing prosperity of all Albertans. The impacts of multiple land-use demands and pressure must be managed through an integrated approach.

Strategic Direction:

- Conserving and maintaining the benefits of biodiversity

OUTCOME:

Watersheds are managed to support healthy ecosystems and human needs through shared stewardship – Water plays an essential role across the region and with increasing pressures and demands placed on this resource, it is essential that an integrated view across water supply, water quality and aquatic ecosystems be advanced.

Strategic Direction:

- Advancing watershed management

OUTCOME:

Land is used efficiently to reduce the amount of area that is taken up by permanent or long-term developments associated with the built environment – Land is a limited, non-renewable resource and so it should not be wasted. Land-use decisions should strive to reduce disturbances on Alberta's landscape. When it comes to land use, other things being equal, less is more — more choices for future generations. Examples of the built environment include urban and rural residential development, commercial and institutional development, industrial development, tourism development, surface mines, oil and gas well sites and pipelines, utility rights-of-way, infrastructure, transportation routes and recreation trails.

Strategic Direction:

- Promoting efficient use of land

OUTCOME:

The quality of life of residents is enhanced through increased opportunities for outdoor recreation and the preservation and promotion of the region's unique cultural and natural heritage – Increasing outdoor recreational opportunities throughout the region by enhancing outdoor recreational and outdoor spaces will enhance quality of life and promote active, healthy living.

Strategic Direction:

- Providing recreation and nature-based tourism opportunities and preserving and promoting the region's unique cultural and natural heritage

OUTCOME:

Aboriginal peoples are included in land-use planning – The Government of Alberta will continue to look for opportunities to engage aboriginal peoples and invite them to share their traditional knowledge to inform land and natural resource planning in the region.

Strategic Direction:

- Inclusion of aboriginal peoples in land-use planning

OUTCOME:

Community development needs are anticipated and accommodated – To effectively address the challenges that increased future growth will bring to the region, all decision-makers will require collaboration with stakeholders.

Strategic Direction:

- Strengthening communities

Implementation Plan

Binding Nature of the Implementation Plan

Except as otherwise provided in the Regulatory Details, the provisions of this Implementation Plan are not intended to have binding legal effect and are statements of policy to guide the Crown, decision-makers and local government bodies in respect of the following activities in the planning region:

a) Managing activities to meet the reasonably foreseeable needs of current and future generations of Albertans, including aboriginal peoples;

b) Enforcing compliance with any provision of this Regulatory Details Plan or any other enactment;

c) Setting priorities in the co-ordination of decisions by decision-makers and local government bodies;

d) Monitoring the cumulative effect of human endeavor and other events;

e) Responding to the cumulative effect of human endeavour and other events; and

f) Generally in respect of carrying out their respective powers, duties and responsibilities.

How We Will Achieve the Vision and Outcomes

Guided by the vision, outcomes and strategic directions set by the SSRP Strategic Plan, the Implementation Plan establishes the objectives and the strategies that will be implemented to achieve the vision and outcomes for the region. The strategies identified describe the regulatory and non-regulatory approaches that will be used to achieve each objective. As a means of assessing the level of progress made towards achieving the desired outcomes, indicators at the strategy and outcome level are identified and will be regularly monitored, evaluated and reported on.

Various governments, ministries and agencies will work together in an integrated manner to develop the required system and tools to support implementation of the regional plan. While the following strategies and actions each fall primarily into the mandate of one or more ministries, it is important to note that a government-wide approach will be taken to implement the strategies. This is part of the shift to a cumulative effects management system as envisioned by the Land-use Framework.

1. Economy

Outcome: The region's economy is growing and diversified.

Strategic Direction:
Sustainable development wherein economic development takes into account environmental sustainability and social outcomes.

The South Saskatchewan Region has a long history of strong economic growth, largely in the agriculture and oil and gas sectors, but with support from forestry, mining and tourism. It is expected that this trend will continue. The region's major cities are home to a range of education, business and financial services, as well as other industries that continue to contribute significant benefits to people living in the region and the rest of Alberta.

Economic growth is the key to future prosperity in the region and a strong investment climate will allow for a productive and responsive economy. Sustainable economic development is not the sole responsibility of one player, but a mutually shared responsibility among regional businesses, communities, all levels of government and other stakeholders. In this vein, the Government of Alberta will work with all levels of government, industry, stakeholders and communities in the region on furthering the Alberta Economic Development Framework, better known as Building on Alberta's Strengths.

The framework is a catalyst for identifying and setting economic development priorities and signals Alberta government's intent to take a more intentional and long-term approach to economic development. The framework focuses on four priorities:

- Expand Alberta's presence and role in the global marketplace;
- Solidify Alberta as a world centre for resource-based and resource-related industries;
- Foster clusters that offer high growth potential to broaden Alberta's economic base; and
- Inspire entrepreneurs to innovate, commercialize and expand businesses across the province.

Building on Alberta's Strengths invokes the notion around sustainable development wherein economic development takes into account environmental sustainability and social outcomes. The framework takes a long term perspective towards economic development. For the South Saskatchewan Region, the maintenance and enhancement of natural resources is the platform for continued economic growth and success, which brings with it tremendous benefits to people in the region, the rest of Alberta

and Canada. A strong economy based on land-uses, with associated job opportunities for Albertans, is a key indicator of quality of life for residents in the region.

In Building on Alberta's Strengths, success is measured by the following list of indicators:

- Growth in productivity
- Business investment in Alberta
- Value of Alberta exports to non-US markets
- Unemployment rate
- Per cent of high growth firms in Alberta
- Index of economic well-being
- Growth in Alberta knowledge-intensive companies

The ultimate outcome is that Albertans benefit from a prosperous provincial economy. Building on Alberta's Strengths aim is to have median after-tax family income grow faster than inflation, while still operating within our environmental capacity to support healthy eco-systems and community well-being.

While these indicators are largely provincial in nature, prosperity, ingenuity and entrepreneurship are regional in scope. Alberta government will work with entrepreneurs and other governments in a systematic and intentional way to incent and inspire businesses, investors and communities to expand market reach, develop new products and explore new markets while building on its resource strength and entrepreneurial spirit.

Agriculture

Objective:

- ***The region's agricultural industry is maintained and diversified.***

Strategies:

1.1. **Maintain an agricultural land base** by reducing the fragmentation and conversion of agricultural land.

Maintaining an agricultural land base recognizes the value of agricultural land for sustainable growth and diversification of the agricultural industry as well as providing an opportunity for expansion of agricultural production and value-added agribusinesses in the region. This strategy strives to maintain contiguous blocks of land for primary production through the implementation of municipal land-use policies that expect municipalities to identify their agricultural lands and to limit their fragmentation and conversion to non-agricultural uses.

Although targeted towards maintaining large agricultural areas, it is also recognized that smaller parcels contribute to the diversification of the overall agricultural economy, particularly in the areas of local food, value-added production and agricultural supporting activities such as machinery dealerships or veterinary offices. These smaller parcels, in conjunction with large contiguous agricultural areas, support the establishment of land-use patterns that not only include a mix of land uses, but provide for a wide range of economic development opportunities throughout the region leading to strong rural communities.

Further to municipal efforts to minimize the fragmentation and conversion of agricultural land, opportunities for voluntary actions by land owners may also exist for the maintenance and preservation of agricultural land. These include voluntary tools such as those that target a reduction of the footprint of the built environment and/or the use of conservation easements; including those intended for the protection, conservation and enhancement of agricultural land or land for agricultural purposes.

1.2. Support a **diverse and innovative irrigated agriculture and agri-food sector.**

Irrigated agriculture provides a reliable and high-quality product supply, attracting first stage processing as well as secondary and tertiary industries that benefit the local and provincial economy. Support for the industry will include:

- Implementation of Alberta's Irrigation: A Strategy for the Future. Through research, programming (planning) and policy development, the roadmap will enhance economic opportunities, contribute to vibrant rural communities in the region and ensure Alberta's irrigation industry continues to be seen as a global leader in the efficient and productive use of water resources.
- Review and update the irrigation suitability map (see Map 14), where appropriate, when new information is available. The irrigation suitability map is a high level planning tool that broadly classifies land for its irrigation capability mainly based on soils, topography and depth to bedrock. Changes could reflect more detailed soils data and updated standards for classifying land suitable for irrigation.

1.3. Assist the agriculture and agri-food industry to **maximize opportunities for value-added agricultural products**.

By focusing on workforce development, investment attraction and domestic and international market development, the Government

Alberta's Irrigation Strategy: A Strategy for the Future

Key strategies reflecting the Government of Alberta's blueprint for the future of the irrigation industry:

1. Productivity – Increase the primary and value-added productivity of the water used by the irrigation industry.
2. Efficiency – Improve the efficiency of water conveyance and on-farm irrigation systems.
3. Conservation – Promote the effective use and management of water to ensure that only the water required for irrigation and other uses supplied by irrigation districts is diverted from our rivers.
4. Water Supply – Assess management options for existing water supply reservoirs and the potential for new water supply reservoirs to ensure that adequate water is available to meet future needs in the South Saskatchewan River Basin.
5. Environmental Stewardship – Minimize the impact of irrigation management practices on surface and groundwater quality and promote beneficial management practices for irrigation and handling of crops to ensure they are safe for consumption.

of Alberta will position the province as a competitive global supplier of agricultural products and services by enhancing and promoting Alberta's ability to provide safe and consistently dependable food in an environmentally and socially responsible manner. Toward achieving this goal, the Government of Alberta offers extension programs and services, research-based information and innovative business tools. Productivity enhancements, workforce development and new product development will be supported through federal-provincial-territorial funding programs.

1.4. Support a business climate and complementary production and marketing approaches that **recognize the contribution of local production in addition to existing domestic and international market opportunities** for Alberta's agriculture, agri-food and agri-product sectors.

Marketing is typically focused on international buyers; however, consumer demand for local and domestic products has created opportunities for the agricultural industry. Continued diversification of marketing opportunities is beneficial for the long-term sustainability of a successful agriculture, agri-food and agri-product sector in Alberta. Working with industry and non-governmental organizations, the Government of Alberta will continue to engage and collaborate on community and economic development, health, academic and agricultural supply chain disciplines to focus on multi-scale, commercially viable agricultural production.

1.5. Support and enhance the **next generation of agricultural, food and rural entrepreneurs**.

Acting on advice from the 2013 "Next Generation Advisory Council," the Government of Alberta will work with relevant stakeholders and organizations to support the attraction of new entrants to the agriculture and agri-food sector. This will be accomplished through the development of programs and services specific to their needs, including initiatives such as ensuring that government-funded loan programs remain competitive and effective, that training and enhanced extension services are provided and also through the continued provision of federal-provincial-territorial shared funding opportunities in the areas of business planning, transition planning, marketing, accounting, financial analysis and leadership development provided through online tutorials, seminars and one-on-one coaching.

1.6. Encourage the use of **voluntary market-based instruments for ecosystem services** in order to recognize and reward the continued stewardship and conservation of private agricultural land and to potentially diversify the agricultural economy.

Energy

Petroleum and Natural Gas, Coal and Minerals

Objective:

- ***Opportunities for the responsible exploration, development and extraction of energy resources are maintained.***

Strategies:

1.7. Ensure rules regarding **access to energy and processing and transportation of energy resources** are clear and ensure economic development opportunities are appropriately considered against other land uses and values.

1.8. Maintain **physical access to freehold** (that is, privately owned) petroleum and natural gas, coal and minerals.

Growth of all energy sectors is crucial for the regional and provincial economies and maintaining a positive investment climate is critical to the success of these industries. Securing long-term opportunities for development of the region's energy resources will support provincial and international sources of supply and will help leverage our traditional energy commodities by accessing new and expanded markets for processed and refined products. This must be supported by the alignment of policy direction across planning regions which will facilitate access to and distribution of these resources.

Renewable Energy

Objectives:

- ***Opportunities for the responsible development of the region's renewable energy industry are maintained in support of Alberta's commitment to greener energy production and economic development.***

- ***Value-added opportunities that enhance the sustainability of Alberta's industries and communities are created.***

Strategies:

1.9. Ensure policies are in place to promote and remove barriers to **new investments in renewable energy** (that is, wind, biofuels, solar, hydro) production.

1.10. Invest in the development, demonstration and deployment of **renewable and alternative energy technologies** targeted to improve Alberta's overall energy efficiency. This will include support for the application of new technologies and support on-going research and development in partnership with other institutions.

1.11. Ensure reinforcement of the **transmission system** to enable more renewable power in the region.

The South Saskatchewan Region has a natural advantage for renewables such as wind, solar, bio and hydro energy; exploring opportunities for renewable energy sources can contribute to reliability and security of the region's energy supply. The Government of Alberta continues to support a focus on renewable energy research through Alberta Innovates – Energy and Environmental Solutions, among others, to promote the stimulation and delivery of renewable energy sources to move directionally towards clean energy sources.

Corridors for the Co-location of Linear Infrastructure

Strategies:

1.12. Ensure that opportunities for future routes and siting for **pipeline gateways, transportation corridors and utility and electrical transmission corridors** are maintained in the region and in consideration of the needs of adjacent Land-use Framework regions and provinces.

1.13. Work with municipalities, landowners and industry to **explore multi-use corridors for co-location of linear infrastructure** that supports critical economic linkages to markets for expanded access.

The Government of Alberta will continue to work with all stakeholders, municipalities, First Nations, industry and other jurisdictions, to ensure long-range economic opportunities related to linear infrastructure continue. Where it is satisfied that it is in the public interest, the Cabinet may declare any area under its jurisdiction to be part of a multi-use corridor by amending the regional plan or using other legislation, if applicable.

Multi-use Corridors

A multi-use corridor is a dedicated land area identified by Cabinet for co-location of linear infrastructure that supports critical economic linkages and is in the public interest. A multi-use corridor may include one or more of the following:

- Public highways and roads;
- Electric transmission;
- High-speed rail and rail;
- Pipelines;
- Water management;
- Telecommunication towers and underground fibre-optic cables; and
- Recreation trails.

Forestry

Integrated with Forest Management Planning Strategy 3.3

Objective:

- *The region's forest industry is maintained and diversified.*

Strategies:

1.14. Promote diversification of the forest industry through implementation of **The Alberta Forest Products Roadmap to 2020** which will identify opportunities to diversify the sector through new markets and products, including the bioenergy sector.

1.15. Deliver an effective **forest health management program to mitigate risk to timber supply and forest health**.

1.16. Incorporate **wildfire management planning** into forest management initiatives including the development of landscape wildfire risk assessments, landscape disturbance planning and FireSmart strategies. Forest management activities – such as prescribed burning, thinning and timber harvesting – will support meeting community and landscape-level FireSmart objectives.

Forests in the region are managed according to sustainable forest management principles. Management strategies focus on the health and resiliency of the forest and its ability to support biodiversity, watershed health, recreation and a vibrant forest industry including the emerging bioenergy sector in Alberta.

Invasive species and other forest health issues impacting timber supplies and other forest values will be addressed through programs to mitigate or control infestations of highest risk. Of primary concern is the mountain pine beetle. Existing policy tools and programs will be used including implementing the Mountain Pine Beetle Action Plan and Mountain Pine Beetle Management Strategy. Spruce budworm and fir defoliators are also significant forest health issues requiring continuous monitoring and control action as necessary.

Planning in the region must consider wildfire disturbances. The potential devastating impacts from wildfire can be reduced by increasing landscape resiliency. Although not all wildfires can be controlled under extreme conditions, integrated planning approaches can reduce the probability of large landscape fires over a long-term planning timeline.

Surface Materials (aggregates)

Objective:

- *Opportunities for the responsible development of surface materials resources are maintained on public lands.*

Strategies:

1.17. **Allocate the surface materials** appropriately and monitor extraction operations to provide opportunities for sustainable development of the land.

1.18. Work with municipalities, industry and other stakeholders to **identify areas of existing and future extraction of surface materials and mineral resources** and determine appropriate land uses in the vicinity of these resources.

Surface materials are an essential component for development and maintenance of infrastructure throughout the region and province. Maintaining opportunities for surface materials extraction supports the increasing need for surface materials products to keep pace with the region and the province's population growth. Maintaining opportunities for the development of these resources is critical to the success of surface materials industries.

The main provincial statute governing surface materials extraction on public lands is the *Public Lands Act*. The regulation grants approvals for surface materials extraction activities through an application and lease and licensing system. The Alberta Aggregate (Sand and Gravel) Allocation Policy for Commercial Use on Public Lands provides a management framework to ensure there is fair and equitable use of Alberta's aggregate resources on public lands.

Tourism

Objective:

- *The region is positioned as a world-class, year-round, tourism destination.*

Strategies:

1.19. Enhance **Tourism Destination Areas** within the South Saskatchewan Region (Kananaskis, Canadian Badlands and Southwest Alberta) by engaging with aboriginal communities, municipalities, industry and local stakeholders (see Appendix B – Tourism Destination Areas).

The Canadian Badlands has developed a 2013-2016 destination management plan to develop, market and manage the region. The Kananaskis region has long been a significant destination for tourism but suffered a great deal of damage during the 2013 flood and rebuilding of the area is underway. The southwest region's potential will be assessed with future planning.

1.20. Work with municipalities, private investors and landowners to identify areas of high value for recreation and tourism and to **encourage tourism investment and infrastructure development opportunities** on identified lands.

1.21. Work with municipal governments and other partners to identify, establish and promote **scenic byways** in and around areas with high-quality attractions and recreation and tourism features. This would include routes, trails and waterways to create distinctive travel experiences and showcase the region's unique scenic resources and cultural landscapes.

1.22. Provide **long-term security** (e.g., longer-term leases) for tourism and recreation investment opportunities.

There is great potential for increased tourism development in the region, as it is home to a rich and diverse natural and cultural heritage and other numerous tourism and recreation features. Additional tourism opportunities would increase the amount of tourism and recreational expenditures retained in Alberta and would support economic diversification in the region. A competitive tourism industry depends on a sufficient supply of land where the integrity of attractive features, settings and scenery are maintained and long-term access is provided. Highway, rail and air transportation also contributes to and supports the tourism industry. Transportation access will continue to facilitate tourism activity in the region.

Indicators for Economic Growth and Diversification

The following are indicators of interest that will be monitored to understand the trends occurring in the region and evaluated to assess the effectiveness of the strategies in supporting the achievement of desired outcomes:

General Economy:

- Gross domestic product
- Business establishments
- Inventory of major projects
- Building permits
- Employment
- Average total income

Agriculture:

- Farm cash receipts for major agricultural products
- New agricultural products to market
- Number of Alberta-approved farmers' market days
- Export-to-import ratio (trade balance) by product and aggregate
- The average age of Alberta farmers from the Agricultural Census
- Number of participants in beginning farmer loan programs
- Agricultural land fragmentation
- Agricultural land conversion

Energy:

- Energy revenues
- Provincial royalties
- Cost of production

Forestry:

- Annual allowable cut versus timber production
- Wildfire risk (burn probability X potential) indicator

Tourism:

- Receipts by visitor origin
- Visitation
- Visitor expenditures
- Occupancy

2: Air

Outcome: Air quality is managed to support healthy ecosystems and human needs through shared stewardship.

Strategic Direction:
Managing air quality through continued collaboration.

The Renewed Clean Air Strategy enhances the existing provincial air quality management system by incorporating direction from the national Air Quality Management System. Alberta has endorsed the national Air Quality Management System as a comprehensive approach for improving air quality in Canada. It is the product of unprecedented collaboration by the federal, provincial and territorial governments and stakeholders.

Collaborative approaches through the Clean Air Strategic Alliance (CASA) and local airshed organizations including the Calgary Region Airshed Zone (CRAZ), the Palliser Airshed Society (PAS) and the Parkland Airshed Management Zone (PAMZ) have made important contributions and served an important role in contributing to monitoring and management of air quality issues. As the national Air Quality Management System continues to be implemented in Alberta, it is important to continue to support and maintain effective partnerships and collaborative approaches in the region. The Government of Alberta will continue to work with local airshed organizations within the South Saskatchewan Region and stakeholders are encouraged to support their work in addressing air quality issues.

Currently, air quality is managed in the region based on provincial policy, legislation and regulations including ambient air quality objectives. The emphasis has been on ensuring effective regulation of point source emissions. A management framework for air quality will be implemented to add to and complement, not replace or duplicate the existing policies, legislation, regulations and management tools. The new approach will support management of the cumulative effects of all development.

The South Saskatchewan Region Air Quality Management Framework is a proactive and dynamic management approach that will help ensure negative trends are identified and assessed, regional limits are not exceeded and the environment remains healthy for the region's residents and ecosystems. Management responses provide opportunities for collaborative work with government and stakeholders in the region to find options and solutions. Understanding and managing non-point sources using a combination of both non-regulatory and regulatory tools will be important to achieving air quality

The National Air Quality Management System includes:

- New Canadian Ambient Air Quality Standards for fine particulate matter and ground-level ozone;
- Industrial emission requirements that set a base level of performance for major industries in Canada;
- A framework for air zone management within provinces and territories that enables action tailored to specific sources of air emissions in a given area;
- Regional airsheds that facilitate coordinated action where air pollution crosses a border; and
- Improved intergovernmental collaboration to reduce emissions from the transportation sector.

objectives in this region. It is expected that local airshed organizations in the region will be contributors to implementation of the air quality framework in the region. Finally, the framework establishes a commitment to ongoing monitoring, evaluation and reporting of ambient air quality conditions and verification if triggers or limits are exceeded. This is described in more detail in the management framework.

While the management framework deals with key substances of concern in the region, there are also some air quality issues in the region that are more localized in nature. Regulatory requirements will continue to be applied to ensure protection of human and ecosystem health. There will also be a need to use collaborative approaches to find solutions to some of the issues.

Specific to rural areas of the South Saskatchewan Region, local air issues are often associated with odour and dust from confined feeding operations (CFOs) and cultivated fields. The agricultural industry, as well as all levels of government, continues to collaborate on achieving effective air quality management in the region. There are regulations in place to deal with the management of manure and odour-related issues. Research continues to inform baselines and identify beneficial management practices. The implementation of many beneficial agricultural management practices has contributed to the reduction in ammonia emissions from CFOs and dust from cultivated fields.

Air Quality

Objective:

- *Releases from various point and non-point sources are managed so they do not collectively result in unacceptable air quality.*

Strategies:

Refer to Regulatory Details
Part 2: Air Quality (pages 162-165)

2.1. Implement the **South Saskatchewan Region Air Quality Management Framework** (see Schedule A - Air Quality Management Framework Triggers and Limits).

2.2. Continue to support the implementation of the **Calgary Region Airshed Zone Particulate Matter and Ozone Management Plan** in alignment with implementation of the national Air Quality Management System and the South Saskatchewan Region Air Quality Management Framework.

2.3. Encourage municipalities, industry and the public to be **proactive in addressing air quality issues** through voluntary programs and initiatives to address emissions sources such as transportation.

Indicators for Managing Air Quality

The following are indicators of interest that will be monitored to understand the trends occurring in the region and evaluated to assess the effectiveness of the strategies in supporting the achievement of desired outcomes:

- Fine particulate matter ($PM_{2.5}$)
- Ground-level ozone (ozone or O_3)
- Nitrogen dioxide (NO_2)

Limits:

- Based on existing Canadian Ambient Air Quality Standards for fine particulate matter and ozone (see Schedule A – Air Quality Management Framework Triggers and Limits) and Alberta Ambient Air Quality Objectives for nitrogen dioxide.
- Apply at continuous air monitoring stations in the South Saskatchewan Region as reported through Alberta's Ambient Air Quality Data Warehouse (currently known as the Clean Air Strategic Alliance (CASA) Data Warehouse).

Triggers:

- Based on existing Canadian Ambient Air Quality Standards for fine particulate matter and ozone and the Alberta Ambient Air Quality Objectives for nitrogen dioxide (see Schedule A – Air Quality Management Framework Triggers and Limits).
- Apply at continuous air monitoring stations in the South Saskatchewan Region as reported through Alberta's Ambient Air Quality Data Warehouse.

3. Biodiversity and Ecosystems

Outcome: Biodiversity and ecosystem function are sustained with shared stewardship.

Strategic Direction:
Conserving and maintaining the benefits of biodiversity.

Understanding the complexity of biodiversity and functioning ecosystems across the different landscapes of the region is a challenge. The benefits we receive from biodiversity and healthy functioning ecosystems are critical to the ongoing prosperity of all Albertans. However, these natural features are sensitive to the impacts of human development. Biological responses to human-caused changes on the landscape are complex and difficult to predict, monitor and respond to. Alberta's historic development and more recent, rapid growth is impacting the province's natural biodiversity assets and ecosystems. The Government of Alberta is committed to using an integrated approach to address these changes and to manage the impacts of multiple land-use demands and pressures.

There are objectives for biodiversity and healthy, functioning ecosystems for the region in this regional plan. A monitoring approach and an appropriate suite of biodiversity indicators that can be measured to assess if those objectives are being achieved will be identified. This will be done under this regional plan through development of a **biodiversity management framework**.

Cumulative effects are the combined effects of past, present and reasonably foreseeable future land-use activities on the environment. Although past cumulative effects are considered it is not the intention of the biodiversity management framework to return Alberta to the levels of biodiversity found prior to European settlement. Today's Alberta includes working landscapes and the Land-use Framework acknowledges the need to balance environmental, social and economic considerations. The focus of the management framework is from today into the future, where information from modeled predictions of the past conditions could inform decision-making about desired future conditions.

Linked to the maintenance of biodiversity is the **conservation of landscapes**. Conserving a range of landscape types representative of Alberta's natural diversity provides for habitat that will support and maintain species and other aspects of biological diversity that depend on these landscapes. Alberta's Natural Regions Landscape Classification Framework identifies natural landscapes found in the province. Targets are in place for all natural landscape types within each of the province's six Natural Regions and 21 Natural Subregions (see Appendix D – Alberta's Natural Subregions).

Connectivity of wildlife habitat across landscapes, within the region and across regions, is also an important factor in maintaining biodiversity. Connectivity is needed to prevent habitat fragmentation and isolation of populations. It also allows for the interchange of genetic material between populations and maintaining genetic diversity of populations; the movement of juvenile animals to new ranges; access to important seasonal ranges; and in the case of large carnivores reduces the potential for negative wildlife-human interactions in landscapes where there is high level of human activity. The southeast area of the region provides important connections for wildlife movement between Alberta, Montana and Saskatchewan. Additionally the southern Rocky Mountain areas are critical to the long-term survival of grizzly bears, wolverines and lynx, which require habitat connectivity from Montana north and through Kananaskis. Maintaining connectivity through the major Bow Valley and Crowsnest Pass corridors is also important. Information gained from reports such as the Bow Corridor Ecosystem Advisory Group report, the Wildlife Corridor and Habitat Patch Guidelines for the Bow Valley – 2012 and the Highway 3 Transportation Corridor Project will contribute to developing transportation plans for maintaining wildlife connectivity in the region.

Industrial development, recreation and other uses also increase the **risk of invasive species**. Preventing the establishment of these species is important for both maintaining healthy ecosystems and to avoid the economic costs associated with control and habitat loss. This can include costs associated with affected water infrastructure (including irrigation infrastructure) in the case of aquatic species and agricultural productivity for invasive plants.

Achieving the objectives for biodiversity; healthy, functioning ecosystems; and natural landscapes will require a **full range of management approaches and tools in order to address** the **complex mix of public lands and private land and how they can contribute to those objectives**. This means further advancing conservation and integrated management of Crown land and supporting and enabling voluntary stewardship and conservation on private land.

Integrated Management of Crown Land

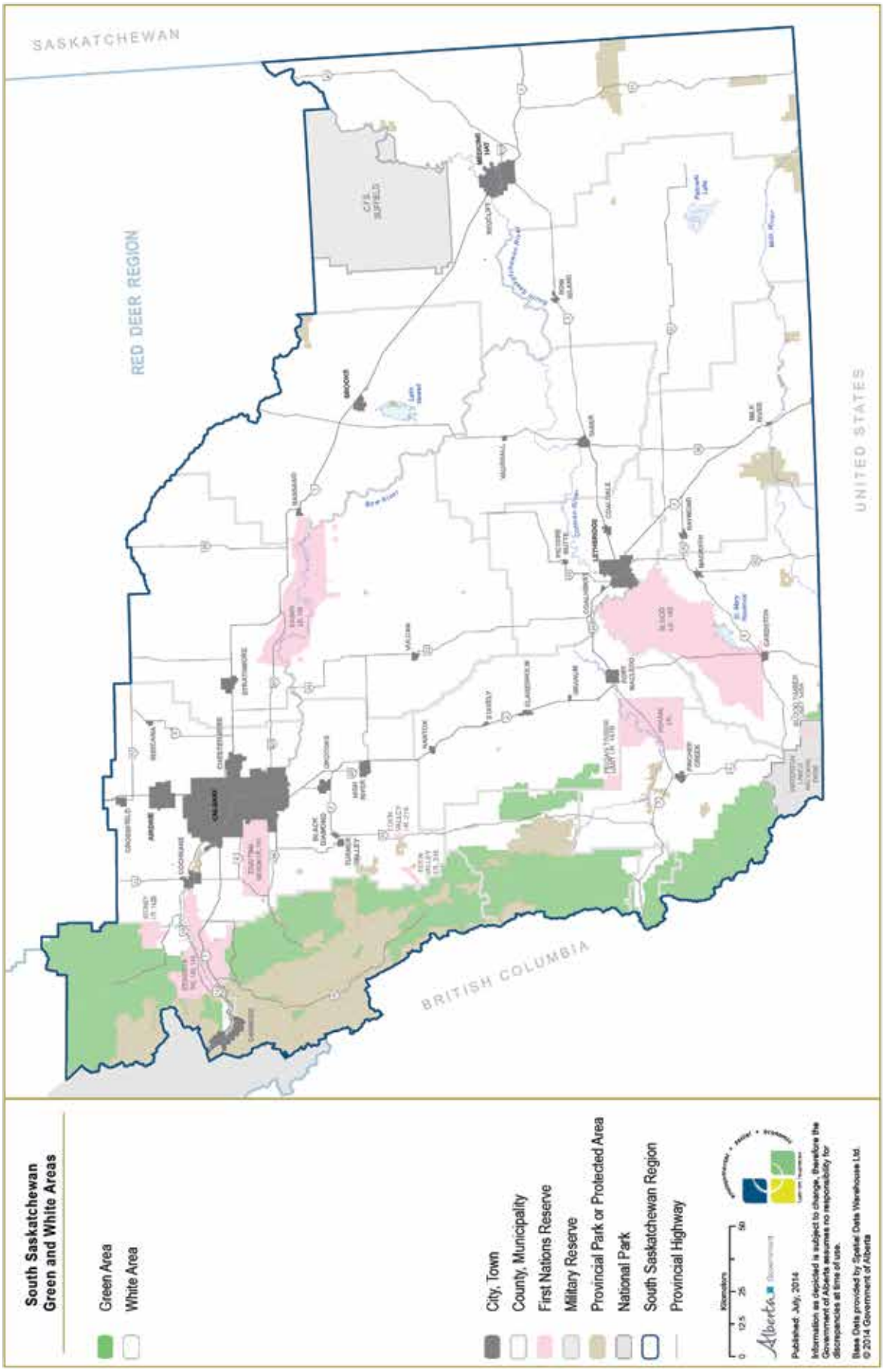
Management Intent for Green Area and White Area Public Land

In the **Green Area**, public land is managed for timber production, wildfire protection, watershed, resource development, wildlife and fisheries, tourism, recreation and other uses. Agricultural use is limited to grazing where it is compatible with other uses. Grazing on public land in the Rocky Mountain Forest Reserve (headwaters of the North and South Saskatchewan rivers) is administered under the *Forest Reserves Act*. The remainder of grazing in the Green Area is administered under the *Public Lands Act*.

Objectives for biodiversity and healthy, functioning ecosystems will be incorporated to achieve multiple objectives. Watershed management and headwaters protection is the priority[25]. Forests will be managed with this as the highest priority (including water storage, recharge and release functions). Practices to manage wildfire risk to communities will be equal in priority to headwaters protection. Other values such as biodiversity, forest ecosystem resiliency (natural disturbance patterns) and timber supply will be key secondary management priorities.

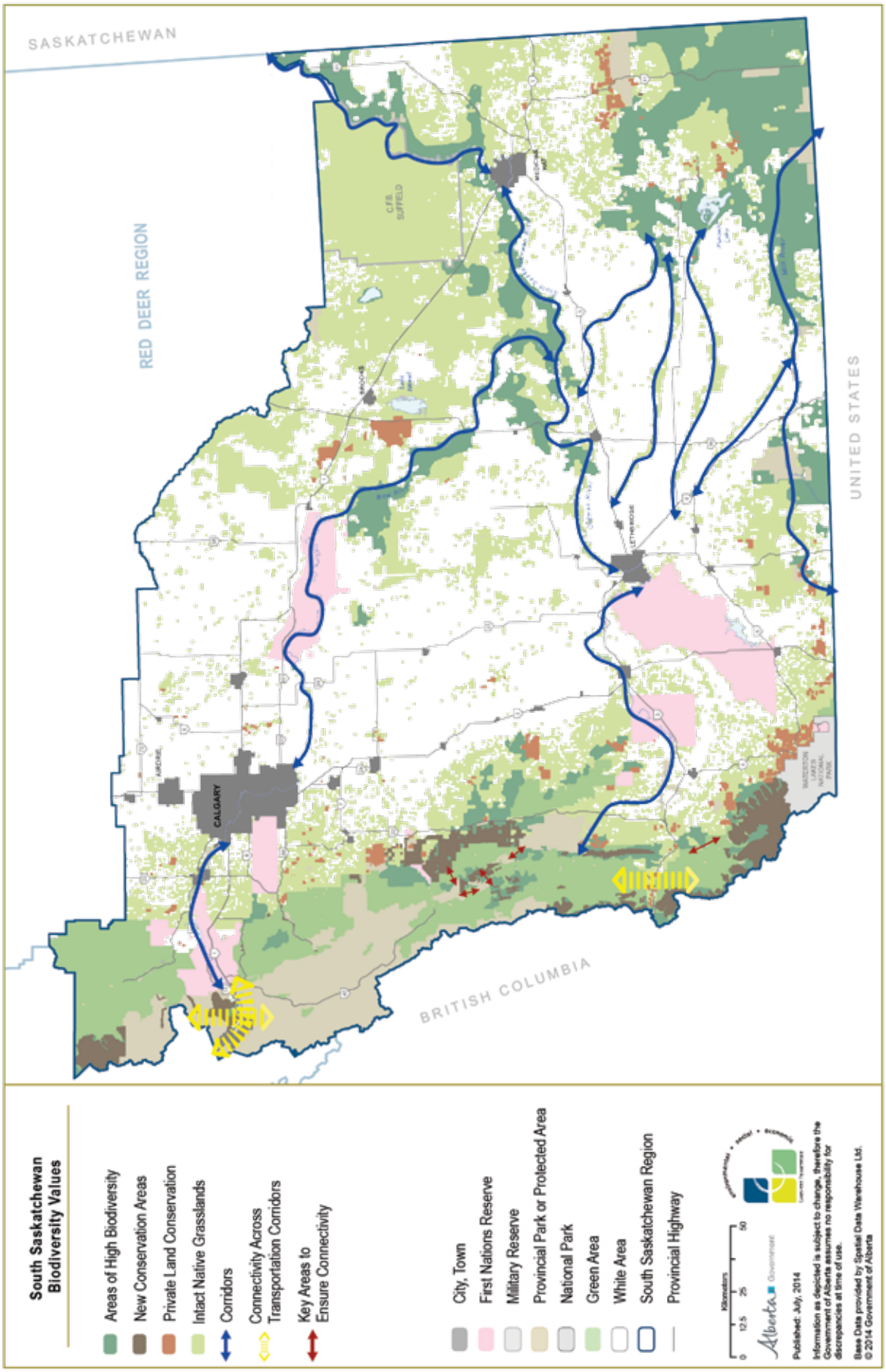
In the **White Area**, public land is part of the agricultural landscape. It is managed for various uses including agriculture, recreation, soil and water conservation, resource development and fish and wildlife habitat. Most of the public land in the White Area is under disposition or is otherwise committed. The unique aspect of the White Area in this region is that these lands contain native prairie which are grasslands with high ecological value for biodiversity and watershed protection. These lands are habitat for the majority of species currently designated at risk in Alberta. The management intent for agriculture and infrastructure on these lands will not change. In the grasslands, maintaining intact native grasslands and habitat will be a high priority and the overarching management intent is to create an interconnected network of conservation areas on Crown land and conservation efforts on private land to sustain and improve overall habitat connectivity for grasslands species.

25 Carried forward from the Eastern Slopes Policy



Map 4: Green and White Areas

Map 5: Biodiversity Values



Management Approaches on Green Area and White Area Public Land

There will be **enhanced management of land disturbance**. Linear footprint disturbance will be minimized through **linear footprint management planning** for Green and White Area public land. Research and species recovery planning initiatives in the region and other parts of Alberta, have shown that managing linear footprint including the extent, duration and rate of disturbance and motorized access are the most significant actions that can be taken to support biodiversity. There will be a focus on priority areas for the eastern slopes based on criteria including the following: key headwaters areas, areas of sensitive terrestrial and aquatic habitat and other areas of high biodiversity value including for connectivity. Priority areas for the prairie grasslands will focus on the southeast corner of the region.

Integrated with Forestry Strategies 1.14 - 1.16 (page 49)

Forest management planning is an essential part of sustainable forest management in the region. These plans will be adjusted to align with the Alberta Forest Strategy which is under development and with other planning as part of an integrated approach to subregional planning.

Integrated with Outdoor Recreation and Historic Resource Strategy 6.6 (page 96)

There will be **comprehensive and integrated recreation management planning** in the Green Area. For some areas of public land, there are existing access management plans and planned trails: the Ghost-Waiparous Operational Access Management Plan (2005), the Castle Access Management Plan (1992) and the Kananaskis Country Public Land Use Zone designated trails. Recreation management planning will be expanded across the region building on existing plans, trail and access information and work done by stakeholders.

Currently in the region, there are a number of **Integrated Resource Plans**, a number of **Public Land Use Zones, surface requirements** under the *Public Lands Act*; **subsurface restrictions** on sales of mineral rights; and **voluntary practices** such as integrated land management to support minimizing land disturbance. The Integrated Resource Plans will remain in effect until they have been reviewed for their relevance and incorporated as appropriate under the implementation strategies of this regional plan or future subregional or issue-specific plans within the region. This will include direction for key industrial sectors such as coal, oil and gas, industrial minerals and aggregates. As part of reviewing and incorporating the Integrated Resource Plans, the government will integrate a review of the coal categories, established by the 1976 A Coal Development Policy for Alberta to confirm whether these land classifications specific to coal exploration and development should remain in place or be adjusted. The review of the coal categories will only be for the South Saskatchewan planning region. The intent is for the SSRP and implementation strategies of the regional plan or future associated subregional or issue-specific plans within the region to supersede the coal categories for the purposes of land use decisions about where coal exploration and development can and cannot occur in the planning region.

Listing of Integrated Resource Plans (pages 4 and 5)

Land Disturbance

Human activity causes changes on the landscape from natural conditions, with associated impacts on related natural resources. This includes linear footprint.

Linear Footprint

Linear footprint is any footprint that creates a linear 'edge' and can be described as a corridor or patch of land disturbance that is created for various purposes including a recreation trail, roadway, wellsite, land clearing, power transmission line, natural gas or oil transmission pipeline, industrial sites or cut blocks, seismic exploration, or utility line.

Public Land Use Zones

Public Land Use Zones (PLUZ) are designed to facilitate a wide range of recreation activities and ecosystem services provision which are compatible with managed industrial activity, primarily forest management, livestock grazing and also oil and gas and surface materials extraction.

Public Land Use Zones in the Green Area will be consolidated and expanded to provide the ability to more effectively manage public land across the Green Area and address priority issues such as protection of watercourses and sensitive areas. They will be established as part of implementation of the regional plan. The existing surface and subsurface requirements will be assessed to ensure clarity and consistency and alignment with the direction of the regional plan.

Subregional and issue-specific planning in the region will use an **integrated approach**, with a deliberate purpose to simplify and implement a coherent planning hierarchy from the regional plan to subregional and issue-specific plans (e.g., linear footprint management, recreation management) to local plans (e.g., Majorville Guidelines for Land and Resource Management). Key components of long-standing Integrated Resource Plans will be incorporated into the new planning hierarchy as appropriate. The intent is to be efficient and effective and to provide clarity while also being inclusive. This is to ensure cumulative effects from the many uses and pressures on the landscape are managed; various viewpoints are considered; and Albertans are involved. An integrated approach means there will be sharing of information and knowledge; coordination of assessments, analysis and planning approaches; coordination of engagement with other governments, industry, stakeholders and the public; and mechanisms to align options being considered across the planning. For example, planning for industrial access and recreational access must be aligned; and planning for recreation management in one area must consider how recreation is being managed across the region. When planning is completed, requirements that are to be applied as plans are implemented also need to be aligned so there is clarity and certainty for all users. Information on biodiversity values has been compiled and is shown on Map 5 to highlight key areas and corridors. The map is for information and will be used to inform the work on the development of the biodiversity management framework, and subregional and issue specific planning in the region.

The Government of Alberta will provide leadership in the development of subregional and issue-specific planning. There will be coordinated involvement of other governments, aboriginal peoples, stakeholders, partners and the public. There will be connections made across different planning initiatives; clear roles and responsibilities identified; leveraging of work that has already been done by partners and other stakeholders; and recognition of the time and effort required from participants (see Appendix E – Integrated Approach for Subregional and Issue-Specific Planning).

On Green and White Area public land, existing grazing activities will continue as carefully managed cattle grazing and traditional ranching practices on long-term grazing leases contribute to the ecological health of large tracts of the continent's finest remaining native grasslands. **Good stewardship and proper grazing management** has helped to retain much of the

existing healthy native and intact rangelands. In order to provide incentive and support for continuing excellence in management, those leaseholders who uphold high stewardship management standards will be eligible to have grazing tenures increased to 20 years. A 20-year lease term will provide greater security for leaseholders and support improved planning and investment and increase incentives to sustain intact native grasslands. Stocking rates[26] will continue to be based on ecologically sustainable levels supported with associated range management principles and best practices. Conversion of native grasslands will be minimized through strict guidelines for land exchange - only in specific circumstances and as long as an equivalent intact grasslands area is available for exchange.

Opportunities for further **conservation management approaches, including the potential for additional conservation areas, in areas of grasslands** will be explored using a collaborative approach. The focus will be on areas where there are significant gaps in protection for grasslands Natural Subregions and where there are important species and habitat. This collaborative approach will include discussions with stakeholders and will also build on the work of partners in the region such as grazing associations, conservation organizations, local organizations and other stewardship groups.

The commitment to maintaining areas of intact native grasslands will contribute to maintaining the habitat for the majority of species currently designated as at risk in Alberta. Enhancing and restoring native grassland habitat to contribute to the recovery of key species such as greater sage grouse, swift fox and pronghorn antelope will support many other species. Programs and initiatives that have been in place to address **recovery of species at risk** are important and will continue. This will continue to require the combined efforts of the grazing community, industry, local governments, recreation users and the public.

Conservation Areas

Establishing **new and expanded conservation areas** is one of the key approaches that support the achievement of environmental objectives – especially those for biodiversity – by maintaining ecological systems and processes for biodiversity. They also provide benchmark areas for assessing ecological integrity.

To support watershed management and headwaters protection, maintain biodiversity and healthy ecosystems and conserve important habitats, new and expanded **Wildland Provincial Parks** (101,869 ha) will be established.

To conserve important native grassland habitat and support maintenance of healthy ecosystems in the Foothills Parkland Subregion a **Heritage Rangeland** (34,356 ha) will be established in the Pekisko area. This will

Conservation Areas

Definition:

A clearly defined geographical space dedicated and managed to achieve the long-term conservation of biological diversity and ecosystem processes.

Management Intent:

Legally protect areas that are relatively undisturbed. They retain their natural character and influence and are areas for measuring ecological performance in relation to human development.

Key Criteria for Conservation Areas

- Areas with little to no industrial activity;
- Areas that support aboriginal traditional uses;
- Areas that are representative of the biological diversity of the area (e.g., landforms, species, vegetation); and
- Areas of sufficient size.

26 See the Integrated Resource Plans for details (listing of plans on pages 4 and 5)

Wildland Provincial Parks are established for the conservation of natural and associated cultural features with significant opportunities for backcountry and wilderness recreation and experiencing nature in a relatively undisturbed state. Wildland provincial parks protect relatively large, ecologically healthy and functioning landscapes that are representative of Alberta's natural diversity and retain their primeval character. These parks provide opportunities for wilderness travel, nature-based touring, guiding and outfitting, ecotourism or adventure tourism trips such as backcountry hiking, wildlife viewing, mountain climbing or trail riding.

Heritage Rangelands are established for the conservation of representative areas of Alberta's prairies, using grazing via long-term leases and traditional ranching practices to maintain the native grassland ecology. They are located only within the Grassland and Parkland Natural Regions of Alberta and on significant grasslands within the Montane Sub-region of the Rocky Mountains Natural Region.

preserve and protect a representative part of Alberta's native prairie, using carefully managed grazing and traditional ranching practices to maintain the health of the grassland ecosystem.

In addition to the conservation area, a **Special Management Area** will be established on lands adjacent to the Pekisko Heritage Rangeland linking to the existing Public Land Use Zones. Existing activities will continue but the priority management intent for the Special Management Area will be to sustain foothills fescue grasslands. This will complement the Pekisko Heritage Rangeland (see Appendix F – Conservation Areas for more information on selected new conservation areas).

Management Intent and Land Uses in Conservation Areas

Conservation areas will be managed to minimize or prevent new land disturbance. This means the land disturbance associated with oil and gas, mining, cultivated agriculture and commercial forestry operations are not considered compatible with the management intent of conservation areas. However, those with freehold mineral rights will not be subject to this restriction.

Petroleum and natural gas tenure will be honoured, consistent with current policy. Specifically, existing subsurface agreements will be honoured and surface access related to these agreements will be permitted in accordance with existing government policy, Information Letter 2003-25, *Honouring Existing Mineral Commitments in Legislated Protected Areas.* What this means is that access related to these existing agreements will be allowed. The Government of Alberta will work cooperatively with companies that have existing commitments to ensure surface access impacts are avoided or minimized while still honouring commitments. Minimizing surface impacts involves utilizing integrated land management practices such as using existing disturbances (e.g., linear corridors), considering winter only access to minimize soil disturbance and timely reclamation of areas no longer required for development activity. New petroleum and natural gas tenure sold in a conservation area will include a restriction that prohibits surface access.

In wildland provincial parks, existing grazing dispositions will be honored, consistent with current policy.

Commercial forestry practices are not permitted within wildland provincial parks. However activities related to the management of wildfire, insect and disease control are permitted and the risk of forest fires is minimized on park managed lands using FireSmart. This may include prescribed fire, single tree removal, or other limited treatments as necessary. Vegetation management in provincial parks and protected areas are managed according to Vegetation Management Program Statement and park management plans,

where they exist. Mountain pine beetle management within provincial parks and protected areas is directed by the Mountain Pine Beetle Management Strategy for the province.

The wildland provincial parks will be managed to provide outdoor recreation and nature-based tourism opportunities that are dependent on and compatible with the conservation objectives. Recreational leases may be considered based on the management intent of conservation areas and existing recreational leases will be honoured.

Existing recreational and commercial equestrian use as well as hunting, fishing and trapping (including by aboriginal peoples) will continue in the conservation areas in accordance with existing provincial laws governing such activities as such laws may be amended or replaced from time to time. Hunting includes commercial guiding and outfitting operations where wildlife species management plans provide an allocation for that use. The reduction in land disturbance is expected to enhance opportunities for these activities.

Where off-highway vehicle use is permitted in wildland provincial parks (see Appendix L – SSRP Land Uses), it will be managed to designated off-highway vehicle trails and areas. Off-highway vehicle use is permitted only on existing off-highway vehicle trails and areas where a management plan, trails plan, regulation, sign, notice, or trail marker designates such use. In new or expanded areas where off-highway vehicle use is permitted and designation of trails or areas has not yet occurred, use of existing off-highway vehicle trails and areas can continue in the interim until the earliest of either a trail plan or management plan is developed which identifies where off-highway vehicle use will be permitted OR off-highway vehicle use is otherwise restricted by regulation. No new trails or routes or access may be developed without a management plan, trail plan or regulation. Off-highway vehicle use shall not occur in the beds and shores of permanent water bodies. Furthermore, off-highway vehicle use shall not occur on power line rights-of-way, utility corridors, or industrial facility areas (e.g., well-sites), unless specifically authorized to do so (see Appendix K – Overview of Off-Highway Vehicle Uses in SSRP). In areas designated as Heritage Rangelands, grazing lease holders are permitted to use off-highway vehicles in connection with the exercise of holders' rights under the grazing lease. An exception to the above note is Black Creek Heritage Rangeland where the *Black Creek Heritage Rangeland Trails Act* permits off-highway vehicle use on designated trails to travel into or out of Bob Creek Wildland Provincial Park.

Research activity consistent with conservation management intent is permitted, although specific proposals must be submitted for approval by the applicable ministry.

Heritage rangelands and heritage rangeland natural areas (heritage rangelands) are an important component of Alberta's protected area system.

Land trusts are non-profit charitable organizations that seek to enable conservation of private lands.

The Government of Alberta established the **Land Trust Grant Program** in 2011 whereby proceeds from the sales of public lands are directed to the Land Stewardship Fund which provides funding to Alberta land trusts for:

- The acquisition of conservation easements; and
- The administrative costs associated with obtaining and managing a new conservation easement or donated land (legal fees, baseline surveys and stewardship endowments).

To be eligible to receive funding, the land trust must demonstrate that it has two-to-one leveraging of funds and alignment to the Government of Alberta's conservation initiatives (protecting large areas of intact native habitat, intact native grasslands).

From 2011 to 2013, the Land Trust Grant Program has granted approximately $20 million for the conservation of approximately 43,400 acres of land.

Under a **conservation easement**, landowners can voluntarily restrict the use of their land to protect its natural, agricultural or cultural heritage. The landowner retains ownership of the land and the easement is registered on land title.

Conservation easements have been in place for over 15 years. Through the *Alberta Land Stewardship Act*, the provisions for easements were expanded to include agricultural lands.

Existing grazing activities will continue as carefully managed cattle grazing and traditional ranching practices on long-term grazing leases continue to contribute to the ecological health of large tracts of the remaining native grasslands. The Minister responsible for the *Public Lands Act* will administer and manage the heritage rangelands. This will include:

- Development of a management plan working with the Minister responsible for protected areas to ensure protected area requirements are met;
- Administration of grazing disposition issuance, renewals and assignments; and
- Implementation of resource management decisions in accordance with the management plan or other direction that exists.

This responsibility will come into effect on September 1, 2014. The Minister responsible for the *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act* maintains responsibility for oversight and reporting on Alberta's protected areas network, including heritage rangelands. There will be a memorandum of agreement developed to reflect these roles. Working together, the ministers responsible for public lands and protected areas will use a cooperative management approach as a new way to involve grazing leaseholders, industry and other local interests and bring together key ministries to dialogue, share views, discuss issues and participate in management planning.

Partnerships

The Government of Alberta values and wants to strengthen the support and contributions it receives from partners in maintaining biodiversity on public and Crown land. Collaborative stewardship with many organizations such as grazing associations, conservation organizations, Watershed Planning and Advisory Councils, watershed stewardship groups, invasive plant management working groups and other local organizations and stewardship groups, as well as responsible individual users of public and Crown land all contribute to maintaining the region's rich biodiversity.

The management of public and Crown land in the South Saskatchewan Region also includes stewardship efforts to protect historic resource values. Integrated decision-making related to the environment and historic resources will support achievement of mutually supportive environmental and cultural outcomes.

Stewardship and Conservation on Private Lands

Alberta farmers and ranchers have a strong tradition of land stewardship and conservation – whether working alone, or in partnership with the Government of Alberta, local authorities, producer groups, watershed stewardship groups, conservation groups and various land trust organizations. The landscapes many Albertans value today are a result of their efforts.

However, Alberta's landscapes and the ecosystem services they provide are being strained from a combination of pressures such as population growth, climate variability and industrial development which are impacting limited ecosystem resources. In addition, farmers and ranchers and their communities are dependent on the economic returns they earn from the land. Therefore, as part of a provincial approach for management of ecosystem services, new methods and strategies must be explored and developed to encourage the provision of a broad suite of ecosystem services by private landowners. These approaches may include voluntary opportunities that not only recognize the value of current contributions, but which explore opportunities that reward additional stewardship efforts by private landowners in the region. The Government of Alberta is committed to the exploration and facilitation of economic tools, such as financial incentives, as well as the development of market-based instruments for ecosystem services that are voluntary in nature and which provide business opportunities for private landowners.

The biodiversity management framework for the region will identify objectives and some key indicators related to grasslands which could be a focus for voluntary private land conservation efforts. The framework will also provide guidance to the Land Trust Grant Program which contributes to private land conservation by providing grants to land trust organizations for purchase of conservation easements and the administration and management of new conservation projects on private land.

Biodiversity and Ecosystems

Objectives:

Regional

- *Terrestrial and aquatic biodiversity are maintained.*
- *Long-term ecosystem health and resiliency is maintained.*
- *Species at risk are recovered and no new species at risk are designated.*
- *Intact grasslands habitat is sustained.*
- *Biodiversity and healthy, functioning ecosystems continue to provide a range of benefits to communities in the region and all Albertans and there is sustainable use of Alberta's biodiversity resources.*

Crown Lands

- *The regional network of areas that support biodiversity - conservation is enhanced through additional conservation areas.*

Private lands:

- *The contributions of landowners for their stewardship and conservation efforts on private lands are recognized.*
- *The contribution and value of private land in supplying ecosystem services is recognized and opportunities to support ecosystem services on private land are identified.*
- *The value of ecosystem services supplied by economic sectors reliant on private lands is recognized.*

Integrated Management of Crown Land

Strategies:

3.1. Complete the **South Saskatchewan Region Biodiversity Management Framework** by the end of 2015 (see Appendix C – Biodiversity Management Framework).

3.2. Develop a **linear footprint management plan** for Green Area and White Area public land in the region. Planning for priority areas including the Porcupine Hills and Livingstone areas will be completed by the end of 2015 and the remaining areas by the end of 2017 (see Appendix E – Integrated Approach for Subregional and Issue-Specific Planning).

This plan will outline a system to minimize the extent, duration and rate of linear footprint development in order to meet the objectives established in this regional plan and the biodiversity management framework. It will describe management actions and approaches that will be taken and requirements that will be applied. This will include approaches and requirements related to intensity of linear footprint, management of motorized access, mandatory use of Integrated Land Management tools; and direction on how and where such requirements will apply. It will also describe a practical system for monitoring, measuring and reporting on linear footprint.

For Green Area public lands, the linear footprint management plan will need to consider recreation management planning, species recovery plans such as Alberta's grizzly bear recovery plan and other initiatives including those led by partners such as Watershed Planning and Advisory Councils.

For White Area public lands, the plan will include an approach to voluntary conservation offsets for native grasslands, where public land linear footprint could be voluntarily offset through agreements with landowners for conservation of intact grasslands on private land. The approach would build off principles established in *Manual 007: Principles for Minimizing Surface Disturbance in Native Prairie and Parkland Areas* of the Alberta Energy Regulator (formerly the Energy Resources Conservation Board). There will be coordination of subregional planning and consideration of other conservation offset pilots and species at risk conservation programs such as the Southeast Conservation Offset Pilot and MULTISAR (Multiple Species at Risk – a voluntary species at risk conservation program).

3.3. **Align forest management planning** in the region with the Alberta Forest Strategy which is under development and with other subregional planning to ensure planning for the highest priority of watershed management and headwaters protection (including water storage, recharge and release functions).

3.4. Review **Integrated Resource Plans** in the region for their relevance and incorporate as appropriate under this regional plan by the end of 2015.

3.5. Consolidate and expand **Public Land Use Zones for Green Area** on public lands.

3.6. Complete the **Majorville Guidelines for Land and Resource Management** by the end of 2015.

This collaborative initiative with external partners supports an area that is recognized for its heritage values, First Nations traditional use and unique native prairie biodiversity within existing agricultural

Integrated with Outdoor Recreation and Historic Resource Strategy 6.6 (page 96)

Integrated Land Management Program

The Integrated Land Management program includes tools to minimize the extent and duration of linear footprint including coordinated industry planning of major access corridors and associated development infrastructure; re-use of existing linear disturbances; and progressive and timely reclamation of linear disturbances.

Manual 007: Principles for Minimizing Surface Disturbance in Native Prairie and Parkland Areas

This provides guiding principles in order to minimize disturbance in native prairie or parkland areas of Alberta. In addition the publication *Guidelines for Minimizing Surface Disturbance* (Native Prairie Guidelines Working Group, 2001) recommends best practices for the petroleum industry and facilitates implementation of the principles described in the Information Letter. A companion document *Prairie Oil and Gas: A Lighter Footprint* (Sinton, 2001) complements the information provided in the Information Letter and the guidelines.

and industrial developments. The guidelines will provide direction for managing public land and natural resources at Majorville – an area which contains a large number of historic resource sites and areas that have cultural significance for Alberta's three Blackfoot Tribes. The guidelines will direct future land use while ensuring that the cultural heritage of First Nations is protected and that the unique prairie landscape, its heritage and its biodiversity values are maintained.

3.7. Implement guidelines to **avoid conversion and maintain intact native grasslands on public land** (see Appendix G - Grasslands).

- Species at risk habitat – No conversion permitted as habitat needs to be sustained as part of government programs for species recovery (as required under federal and provincial legislation).
- Intact native grasslands – No conversion permitted where no or poor irrigation suitability exists according to the map Irrigation Suitability on Intact Native Grasslands (see Map 14) and on-site field assessments.
- Intact native grasslands – Where irrigation suitability exists, land will be considered on a case-by-case basis for conversion to irrigation development as long as an alternative equivalent area of intact private grassland with low or no irrigation suitability is identified for a land exchange as part of the development proposal. Other criteria the government will consider in such proposals include water availability and adjacency to existing irrigation operations where applicable. A land exchange under the Government of Alberta Land Exchange Program is preferred (see Appendix G - Grasslands). The alternative area identified for the land exchange must be continuous and have connectivity with other intact native grasslands.
- Non-intact native grasslands – Regardless of irrigation suitability, lands will be considered on a case-by-case basis for a land exchange. In such cases, a land exchange under the Government of Alberta Land Exchange Program is preferred.

3.8. Implement a policy to allow for increased **grazing tenure terms**, from 10 years to 20 years, to continue to sustain intact native grasslands.

This policy allows for increased grazing tenure terms, from 10 years to 20 years, for leaseholders who uphold high stewardship management standards on public land outside of heritage rangelands. To support this new policy and to ensure transparency, criteria will be used to assess management on public lands outside of heritage rangelands.

3.9. Continue the commitment to **stocking rates**[27] in effect as of September 1, 2014.

27 See the Integrated Resource Plans for details (listing of plans on pages 4 and 5)

In continuing this commitment, the Government of Alberta will endeavour to maintain stocking rates through management tools and allocations using the existing legislation to ensure sustainable rangelands and healthy watersheds are maintained. The Grazing Lease Stewardship Code of Practice and tools such as balancing forage demand with supply, improved animal distribution, seasonal grazing deferral periods and effective rest periods after grazing or range improvements may be used.

3.10. Continue to work with other government agencies, other levels of government, landholders, non-government organizations, industry, the research community and other partners within and outside the province to **manage risk associated with invasive species**.

Invasive species already established will be controlled where environmental and economic impacts are at greatest risk. Invasive species not yet found in Alberta but with high environmental or economic risk will have programs developed and implemented to prevent establishment. In addition to terrestrial invasive species, a current focus is on the three most noxious aquatic invasive species: zebra mussels, quagga mussels and Eurasian water-milfoil.

3.11. Create **new and expanded conservation areas** on provincial Crown land (see Appendix L - SSRP Land Uses and Schedule C - SSRP Map).

Refer to Regulatory Details Part 3: Conservation Areas (pages 165-168)

New and Expanded Conservation Areas

Map Area**	Area Name	Area Size (ha*) (added area)	Type of Change	Legal Designation
A	Don Getty	26,261	Expansion	Wildland Provincial Park
B	Bow Valley	7,361	Expansion	Wildland Provincial Park
C	Bluerock	453	Expansion	Wildland Provincial Park
D	High Rock	8,348	New	Wildland Provincial Park
E	Bob Creek	360	Expansion	Wildland Provincial Park
F	Livingstone Range	4,498	New	Wildland Provincial Park
G	Castle	54,588	New	Wildland Provincial Park
H	Pekisko	34,356	New	Heritage Rangeland

* hectares

** (See Schedule C – SSRP Map and Appendix L – SSRP Land Uses)

Refer to Regulatory Details
Part 4: Conserved Land (page 168)

3.12. **Manage conserved lands** (see Appendix L – SSRP Land Uses) to achieve long-term conservation of biological diversity and ecosystem processes.

3.13. Establish a **Special Management Area adjacent to the Pekisko Heritage Rangeland** linking to the existing Public Land Use Zones by the end of 2015 (see Appendix F – Conservation Areas).

This area will be a priority for development of a management plan for both the Pekisko Heritage Rangeland and the Special Management Area. Specific requirements will be established for the Special Management Area in accordance with that management plan (see Appendix E – Integrated Approach for Subregional and Issue Specific-Planning).

3.14. Explore **opportunities for further conservation management approaches** using a collaborative approach in areas of grasslands.

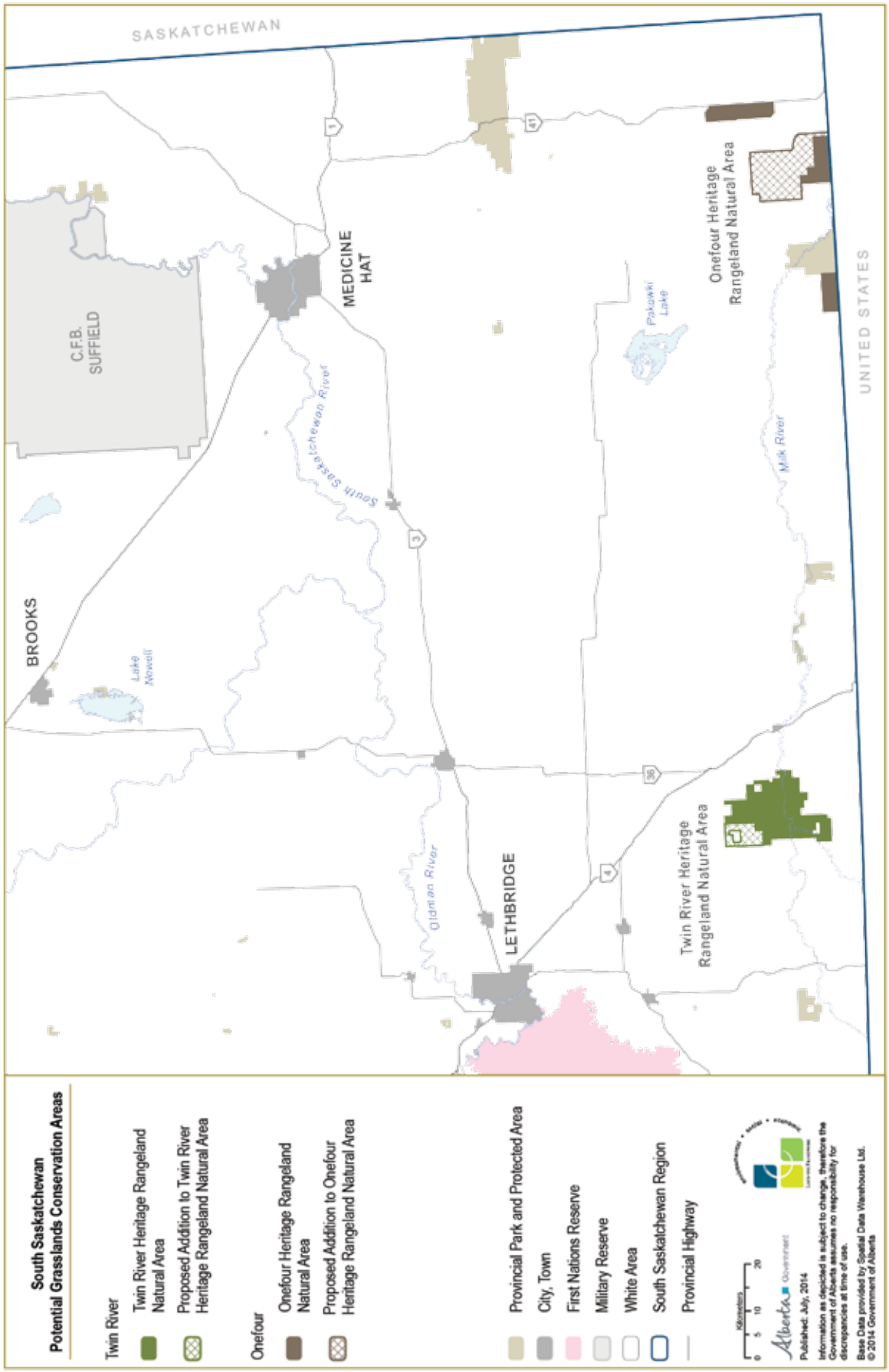
a) Explore the potential for additional conservation areas. The focus will be on areas where there are significant gaps in protection for grasslands Natural Subregions and where there are important species and habitat.

Two areas for consideration are the existing Twin River Heritage Rangeland Natural Area and some adjacent lands; and the Onefour Heritage Rangeland Natural Area with the previous federal research station. These areas provide important habitat for prairie species, offer vast areas for sustainable grazing opportunities and support the preservation of Alberta's rich cultural heritage. Conserving the Onefour area will also support future biological, livestock and rangeland research working with local stakeholders and research organizations. There will be a collaborative process working with stakeholders in the areas to review the management intent for the areas and determine the designations that could be used by the end of 2015 (see Map 6). Other areas that are brought forward as part of local nominations may also be considered. Existing petroleum and natural gas tenure will be honoured in these areas, consistent with existing government policy, if a conservation area designation is pursued.

b) Work collaboratively with stakeholders and partners to explore and implement other conservation approaches and expand the range of tools used to conserve grasslands.

A collaborative approach will be used working with stakeholders and building on the work of partners in the region. This will include the grazing community, grazing associations, the energy industry, conservation organizations, stewardship groups and other local organizations. Consideration will be given to approaches on public land by government and by partners such as MULTISAR and the Prairie Conservation Forum. It will also look at important approaches being taken on private land.

Map 6: Potential Grasslands Conservation Areas



Stewardship and Conservation on Private Land

Strategies:

3.15. Encourage and support the continued stewardship of Alberta's private lands through the **development and piloting of regionally appropriate conservation tools**. These tools may include exploring market-based options, voluntary conservation easements and the provision of other government and/or private sector incentives that assist in achieving environmental outcomes. This will be done within the provincial approach for management of ecosystem services.

- Acknowledge the voluntary contributions of private land owners in enhancing ecosystem services. Assess opportunities for achieving greater regional biodiversity on private agricultural lands through the development of new and/or expanded voluntary partnerships with private landowners;
- Consider pilot studies with the goal of assisting development of a voluntary, privately operated market-based system for ecosystem services valuation and payment;
- Encourage local authorities or qualified organizations to explore the applicability and use of voluntary stewardship and conservation tools on private lands including conservation easements, conservation offset programs and transfer of development credit schemes;
- Explore innovative funding mechanisms to support stewardship and conservation on private lands; and
- Promote private land voluntary conservation actions on native grasslands that support sustainable grazing activities, biodiversity, lands identified as environmentally sensitive areas and/or on wetlands for protection, restoration and development.

3.16. Complete development and evaluation of the **Southeast Alberta Conservation Offset Pilot** by the end of 2015 (see Appendix H - Southeast Alberta Conservation Offset Pilot).

The pilot will develop an approach for voluntary offset of new industrial impacts on native prairie (for example, petroleum and power line development) by contracting private landowners (through a third party) to convert annual cropland to native species rangeland. The pilot will address aspects of voluntary conservation offsets including:

- A workable approach to quantify new industrial site offset requirements;
- Develop an approach to target offset habitat project development on privately owned agricultural lands with the greatest benefit for biodiversity and species at risk;

- Develop an open-price discovery approach to determine agricultural landowner costs; and
- The role for a third party to facilitate habitat development and associated conservation offset obligations (including contracts, verification requirements and monitoring).

Experience gained through the pilot study will be used to inform future offset pilots and approaches for ecosystem services market-based tool development.

3.17. Develop and facilitate the continued voluntary adoption of **beneficial management practices that demonstrate agriculture and agri-food sector commitment to environmental stewardship**.

Implementation of programs such as the Environmental Farm Plan and/or Federal-Provincial-Territorial agricultural policy frameworks (i.e., Growing Forward 2) helps producers identify environmental risks associated with their operations and encourages the adoption of beneficial management practices (BMP) to address those risks. Continued extension, education and publication of information (including BMP manuals) increases awareness and provides many resources for private landowners who may be interested in implementing BMPs.

3.18. Consider connectivity of **intact native grasslands as the highest priority under the Land Trust Grant Program**.

Indicators for Managing Biodiversity and Ecosystems

The following are indicators of interest that will be monitored to understand the trends occurring in the region and evaluated to assess the effectiveness of the strategies in supporting the achievement of desired outcomes:

- Amount of land in conservation easements
- Amount of intact native grasslands
- Area of conserved land

4. Water

Outcome: Watersheds are managed to support healthy ecosystems and human needs through shared stewardship.

Strategic Direction:
Advancing watershed management.

Southern Alberta has rich and varied landscapes with water playing an essential role across the region. The complex relationship between the water, the land and all those that live on it has been recognized and our collective knowledge, understanding and appreciation of this complexity has grown and improved significantly over time. With increasing pressures and demands, we must continue to advance an integrated view across water supply, water quality and aquatic ecosystems in the region. The province's existing system for management of water and watersheds will continue to be the foundation we work from, with enhancements made to support that integration. The 2013 water conversations will inform the continuing work of government on provincial policy on water and watersheds and will result in enhanced water management in this region.

To the west in the region, the eastern slopes of the Rocky Mountains provide the major headwaters for the region and more than 75 per cent of the region's water supplies. **Watershed management and headwaters protection** is the priority for both water supply and water quality. To the east and the south, southern Alberta must continue to meet its transboundary obligations under the Master Agreement on Apportionment and the Boundary Waters Treaty. Both of these transboundary water management agreements were developed in a spirit of cooperation which is the basis of our relationships with our neighbours. It is recognized that an integrated approach to watershed management is critical, to ensure that land-uses are considerate of the key functions and strategically important locations of wetlands, riparian lands, source and re-charge areas to ensure key functions in each watershed area sustained.

It is important to continue to use collaborative approaches and to maintain and build partnerships in the region. Shared stewardship is essential. The province will continue to work with municipalities and other stakeholders to build awareness, achieve effective watershed management and encourage protection of water resources and responsible development. A key partnership under the Water for Life strategy is with the **Watershed Planning and Advisory Councils**. They have demonstrated leadership in their contributions to watershed assessment and planning in the region and the Government of Alberta is committed to enhancing its relationship with them.

The Approved Water Management Plan for the South Saskatchewan River Basin continues to provide important guidance for water management in the region. It establishes the limit of the water resource for the Bow, Oldman and South Saskatchewan River sub-basins; recommends an interim limit of the water resource for the Red Deer River sub-basin; and establishes water conservation objectives for instream flow. The Milk River does not currently have an approved water management plan, but the international Boundary Waters Treaty has a significant influence on this basin through the identification of how the available water must be shared for both the Milk River and the St. Mary River in Montana.

Matching water supply and demand is a key challenge throughout the South Saskatchewan Region. Continued population growth and economic development will depend on using the existing water allocations as efficiently and effectively as possible. Alberta's Water for Life strategy has established a provincial target of 30 per cent improvement in water use efficiency and productivity by 2015, based on 2005 levels. This target will continue to be pursued in the region through implementation of water conservation, efficiency and productivity plans development by the seven major water-using sectors. Progress across all water sectors is being assessed and future direction will be considered in 2015. This may include development of regionally based targets and other additional commitments to improve efficiency and productivity.

The irrigation and urban municipalities sectors were the first to complete their water conservation, efficiency and productivity plans and are currently working on implementation. The Alberta Urban Municipalities Association is working with its members to improve water conservation measures and many of the urban municipalities in the region already have water saving programs in place. The Alberta Irrigation Projects Association developed the irrigation sector plan. They have already reported improvements and are on track to meet their targets. As the largest water user in the region, the irrigation industry recognizes that long-term sustainability of the industry is reliant on the use of technologies and practices that conserve and allow for the continuous improvement of water resource management. Looking forward, the Government of Alberta will continue to support water conservation targets through efforts such as implementation of Alberta's Irrigation: A Strategy for the Future.

Significant investment in **water management infrastructure** has been made in the region. It is important that this investment continue to be protected so it can continue to provide a range of economic, environmental and social benefits into the future. On-and-off- stream storage that is part of the public infrastructure is one of the management tools that can contribute to the goals of conservation, productivity and efficiency. In addition, although existing storage infrastructure is not designed for flood attenuation, if required, there can be some capacity for reducing peak flows through refining or modifying the operations of existing storage.

Compounding the challenge of matching water supply and demand in the region are other factors that will alter the amount of available water in the future, such as climatic conditions. Planning to support **climate change adaptation** and ensure preparedness for both drought management and flood response is essential to ensuring the region can be resilient and adapt to changing conditions over time. Overall watershed management that looks at flood and drought impacts collectively is a key element to guide mitigation efforts. Flood mitigation includes approaches that add layers of resiliency against future floods. These approaches can include options such as berms, dikes, building codes and standards, policy and legislation. Flood mitigation approaches can align with natural ecological processes while retaining environmental and flood protection benefits. Restoring the water absorption and retention characteristics of headwater landscapes and floodplains is a long-term strategy that can reduce flood risk and improve water security during drought periods. A program is being designed to identify and incorporate these natural features into the overall flood mitigation strategy.

Appropriate **flood management** contributes to long-term community sustainability and resiliency. Mitigating impacts from flooding reduces risk to public safety, developments and infrastructure, provides environmental benefits and results in savings in tax dollars for post-flood recovery costs. This can be achieved through maintaining healthy, functional watersheds and through enhancements to the existing flood management systems used by both the Government of Alberta and municipalities. This includes improved development practices and use of flood management tools and infrastructure and by making better land-use decisions in headwater landscapes and flood hazard areas. The Government of Alberta is making significant investments in infrastructure and flood mitigation programs in the region, with several large infrastructure projects also under consideration.

Currently **water quality** is managed in the region based on provincial policy, legislation and regulations, including ambient water quality guidelines and the use of beneficial management practices by landowners. The emphasis has been on ensuring effective regulation of point source discharges. The management framework for surface water quality for the main stems of the Bow, Milk, Oldman and South Saskatchewan rivers will be implemented to add to and complement, not replace or duplicate the existing policies, legislation, regulations and management tools. This new approach will support management of the cumulative effects of all development.

The South Saskatchewan Region Surface Water Quality Management Framework is a proactive and dynamic management approach that will help ensure negative trends are identified and assessed, regional limits are not exceeded and the environment remains healthy for the region's residents and ecosystems. If monitoring indicates that a trigger or limit has been exceeded, there will be a regional management response. The framework describes the kinds of management responses that may be required, such as the

preparation of management plans (individual or collective), further modeling and/or monitoring, development and the use of best management practices and education and awareness programs. Management responses provide opportunities for collaborative work with governments and stakeholders in the region to find options and solutions. Understanding and managing non-point sources using a combination of both non-regulatory and regulatory tools will be important to achieving water quality objectives in this region. The Watershed Planning and Advisory Councils and associated watershed stewardship groups will be key contributors to implementation of the framework.

The Phosphorus Management Plan for the Bow River was initiated as a proactive management response to elevated phosphorus levels in the river. This multi-stakeholder collaborative project is a means to address point and non-point source phosphorus inputs using a cumulative effects management approach. As part of the implementation of the South Saskatchewan Region Surface Water Quality Management Framework, the work on the Phosphorus Management Plan is now complete and implementation is beginning in 2014.

Groundwater is important in some local areas in the region and they are experiencing increasing pressure within those basins that have water allocation restrictions and will likely play a larger role in satisfying population and development pressures. Priority areas for groundwater management are being confirmed. A knowledge base is needed prior to selecting the most appropriate groundwater management approach and to ensure groundwater quantity and quality are sustained.

The use of hydraulic fracturing is not new in Alberta. Currently oil and natural gas developments using hydraulic fracturing are regulated under the same regulatory framework as other oil and gas projects in the province. In recent years, advances in hydraulic fracturing technology have made it economical to produce oil and natural gas resources from formations which were previously unsuitable for development and this has introduced a new pressure on surface water and groundwater in the region.

In addition to water supply and the water quality, the Government of Alberta is looking at aquatic ecosystems including management needs for riparian lands, wetlands and watersheds. Cumulative impacts from agriculture, resource development, tourism and recreation, forestry, wildfire and urban development affect water supplies, water quality, aquatic ecosystems and wildlife habitat.

Riparian lands are important as they are highly productive, rich and resilient parts of the landscape. The Alberta Water Council led a collaborative initiative with the purpose of enhancing knowledge and providing recommendations for effective conservation and management of riparian land in support of the goals in the Water for Life strategy. The Government of Alberta will consider

these recommendations for implementation. Existing initiatives such as the Alberta Riparian Habitat Management Society program (better known as “Cows and Fish”) highlight the stewardship commitment and positive contributions of landowners to riparian health. The continued implementation of voluntary approaches such as Stepping Back from the Water provide practices intended to assist local authorities and watershed groups with policy creation, decision-making and watershed management relative to structural development near water bodies.

Wetlands are highly diverse and complex ecosystems and have long been recognized for the contributions they make to human and ecosystem health. They provide benefits that contribute to resiliency to drought and flood conditions, water purification, groundwater recharge and recreational opportunities and they are centres of high biodiversity. In Southern Alberta approximately 64 per cent of wetlands have disappeared since the beginning of European settlement. The Government of Alberta has approved the Alberta Wetland Policy; implementation will take into consideration the regional context including the past and current pressures on these areas. The Government of Alberta is also committed to increasing knowledge and mapping of wetlands, including standardizing and updating the existing wetland inventory and working with partners where appropriate.

There are few natural **lakes** in the region. Most of the lakes are man-made **reservoirs** that support irrigation, hydroelectricity, recreation, municipal and industrial uses; and maintain minimum flows in rivers downstream. There are pressures from recreation, agriculture and development around lakes and reservoirs which may impact the water quality and aquatic health of these water bodies. There are ongoing efforts on an individual site specific basis with landowners, irrigation districts and various associations to mitigate these impacts and protect water quality and aquatic health. There is recognition of the growing need to integrate and align efforts around lake and reservoir management with a strategic and coordinated approach.

Aquatic invasive species are of concern for maintaining healthy aquatic ecosystems. The current focus is on preventing the establishment of the three most noxious aquatic invasive species: zebra mussels, quagga mussels and Eurasian water-milfoil. In addition to aquatic ecosystem impacts, there are high economic costs associated with affected water infrastructure. The Government of Alberta is committed to continued prevention and control work with multi-jurisdictional organizations such as the Crown Managers Partnership (Crown of the Continent).

Surface Water Quality

Objective:

- ***Surface water quality in the Bow, Oldman, South Saskatchewan and Milk rivers is managed so current and future water uses are protected.***

Strategy:

4.1 Implement the **South Saskatchewan Region Surface Water Quality Management Framework** (see Schedule B - Surface Water Quality Management Framework Triggers and Limits).

Refer to Regulatory Details Part 5: Surface Water Quality (pages 169-171)

Indicators for Managing Water Quality

The following are indicators of interest that will be monitored to understand the trends occurring in the region and evaluated to assess the effectiveness of the strategies in supporting the achievement of desired outcomes:

- Fifteen general water quality indicators have been selected (see Schedule B – Surface Water Quality Management Framework Triggers and Limits); and
- Two metals and four pesticides have been selected as secondary indicators to be monitored, but triggers and limits are not yet established due to insufficient data.

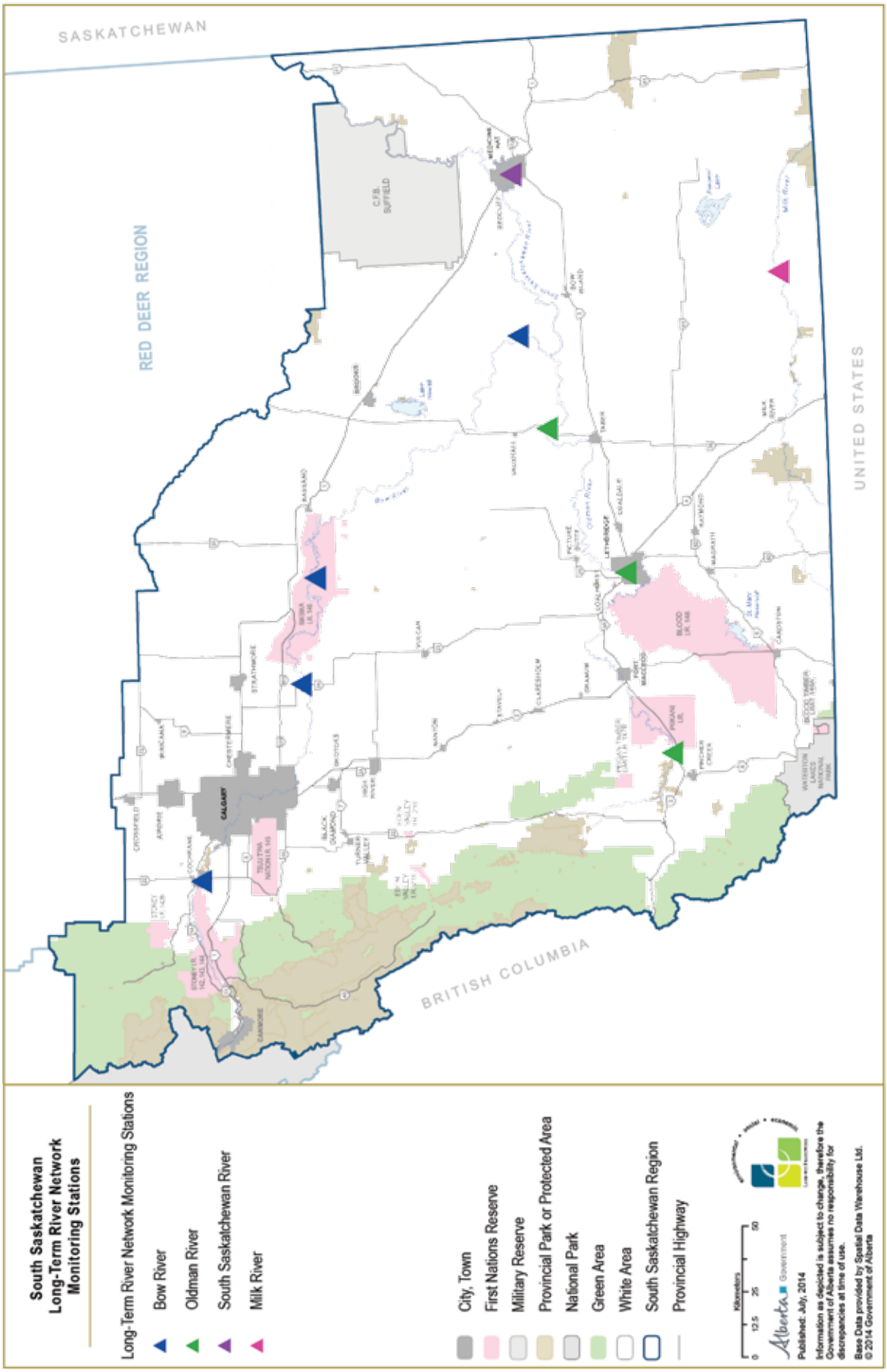
Limits:

- Established from existing provincially accepted water quality guidelines where applicable; further risk-based limits are to be developed (see Schedule B – Surface Water Quality Management Framework Triggers and Limits).
- Apply at nine Long Term River Network monitoring stations as indicated in the management framework.

Triggers:

- Based on statistical deviation from historical ambient concentrations (see Schedule B – Surface Water Quality Management Frameworks Triggers and Limits.)

Map 7: Long-Term River Network Monitoring Stations



Enhanced Integrated Watershed Management

Integrated with Land-use Policies
Water and Watershed Strategies
8.23 - 8.33 (pages 109 and 110)

Objective:

- *Regional approaches and tools support integrated management of water and aquatic ecosystems.*

Strategies:

4.2 Develop a comprehensive approach for **groundwater management** by the end of 2017.

- Confirm priority issues and areas of concern and accelerate monitoring at existing wells in the areas of concern by the end of 2014;
- Develop and implement an enhanced regional monitoring program, to focus on priority issues by the end of 2016;
- Continue groundwater mapping in southern Alberta under the Provincial Groundwater Inventory Program; and
- Develop policy direction related to the connectivity of groundwater to nearby surface water sources.

4.3 Continue to support the work of the Watershed Planning and Advisory Councils on **watershed assessment and planning** under the Water for Life strategy, in alignment with regional planning. Stakeholders are encouraged to support the work of the Watershed Planning and Advisory Councils including development and implementation of watershed management plans.

4.4 Continue to increase knowledge and **improve management of wetland areas** within the region.

- Establish regional wetland management objectives as enabled under the Alberta Wetland Policy. The objectives will focus on the wetland values that are of high priority including biodiversity, water quality improvement, flood reduction and human use.
- Continue to facilitate the advancement of wetland knowledge, data systems and science in the region. Current efforts in these areas include enhancement of the Merged Alberta Wetland Inventory, development of the Alberta Wetland Classification System and refinement of several wetland assessment tools.

4.5 Continue to increase knowledge and **improve management of riparian lands** within the region.

- Assess the feasibility and need for a regional riparian management strategy, building on the work of the Alberta Water Council's Riparian Land Conservation and Management Report and Recommendations (2013);

Source Water Protection Plans

Source protection is used to control or minimize the potential for introduction of chemicals or contaminants in source waters, including water used as a source of drinking water. Since both surface and groundwater may be a potential source of drinking water, source protection relates the protection of all water resources.

Drinking Water Safety Plans

A drinking water safety plan is a proactive method of assessing risks to drinking water quality, which better protects public health. Plans are based on an assessment of risk factors that could potentially adversely affect drinking water quality.

Conservation, Efficiency and Productivity Sector Plans

A conservation, efficiency and productivity plan will outline the sector's overall strategy for achieving water conservation, efficiency and productivity objectives. The strategy will include specific goals, objectives and timelines that reflect the circumstances of each sector including targets or benchmarks for the sector as a whole and management practices that individual water users can follow.

- Encourage municipalities to use Stepping Back From the Water when establishing appropriate setbacks from water bodies to maintain water quality, flood water conveyance and storage, bank stability and habitat;
- Encourage landowners to maintain their riparian lands following beneficial management practices such as those developed by the Alberta Riparian Habitat Management Society (also known as "Cows and Fish"); and
- Continue to increase knowledge of riparian lands including continued work on mapping and inventories and working with partner organizations and First Nations as appropriate.

4.6 Encourage the use of **best management practices for land disturbances to minimize sedimentation of water bodies** and encourage municipalities to work with land developers to develop and implement best management practices appropriate for the site and establish policies and guidelines for erosion and sediment control in locations with high development pressures.

4.7 Encourage the development of **source water protection plans** and the use of **source water protection measures**. Source water protection plans may be developed by municipal water utilities, Watershed Planning and Advisory Councils and upstream stakeholders and include aboriginal communities participation where appropriate as a collaborative effort which is important for successful implementation.

4.8 Continue to require the development of **drinking water safety plans** for all municipal waterworks systems as required under the current regulatory system. Municipalities are encouraged to work collaboratively with upstream stakeholders to identify and mitigate risks in watersheds.

4.9 Encourage decision-makers and land managers to use the available **planning information**, including: riparian and wetland mapping and inventories, environmentally significant areas mapping and groundwater vulnerability mapping.

The province continues to be committed to integrated management considering water supply, water quality and aquatic ecosystems. In order to support successful integrated management of water and aquatic ecosystems, ongoing work is needed to ensure innovation and development of tools and approaches. Shared stewardship and collaboration will continue to be underlying principles.

Efficient and Resilient Water Supply

Objectives:

- ***Water is used as efficiently as possible to meet the current and future human and ecosystem needs.***
- ***There is resiliency in the ability of the water management system to adapt to change over time.***

Strategies:

4.10 Continue to develop an optimized **water management system** in the region.

The provincial water management system will continue to be assessed for optimization and efficiencies to address periods of both low flows and drought conditions and high flows and flooding conditions.

This will build on completed work including:

- The Water Supply Study (2009) which assessed current and future water supply and demands;
- The South Saskatchewan River Basin Adaptation Project which takes a multi-stakeholder approach to identify opportunities for integrated management of the Bow, Oldman and South Saskatchewan river systems;
- The Bow River Project (2010) which will be used to determine options for managing existing flows and better achieving environmental, irrigation and municipal needs;
- Flood mitigation engineering studies (2014) completed for the Bow, Elbow, Oldman, Highwood, Sheep and South Saskatchewan Rivers which reviewed and assessed flood mitigation options for these rivers; and
- A water storage opportunities study for the South Saskatchewan River Basin that will be complete by the end of 2015. Included in the study are the Oldman, Bow, South Saskatchewan and Red Deer rivers. This planning level study will provide advice to government and may be used to guide future planning and decision-making for the potential development of additional water storage in the region and the assessment of on-stream and off-stream storage sites. Additional storage could reduce the risk to existing water users such as irrigators, municipalities, industry and the environment, as well as improve protection of the aquatic environment and mitigate the climate change variability in the region.

Flood Hazard Mapping

Flooding can cause damage to property, hardship to people and, in extreme events, loss of life. To assist Albertans in mitigating potential flood losses, the Government of Alberta manages the production of flood hazard studies and mapping under the provincial Flood Hazard Identification Program. Flood hazard mapping delineates flood hazard areas along streams and lakes using design flood levels established as part of flood hazard studies. Flood hazards have not been identified in all communities and may exist in areas without flood hazard studies or mapping.

4.11 Continue to work towards the targets set within the Water for Life strategy with all sectors demonstrating best management practices to reach **overall water efficiency and productivity improvements** by 30 per cent from 2005 levels by 2015.

All seven major water-using sectors will implement their water conservation, efficiency and productivity plans and submit regular progress reports to the Alberta Water Council. The irrigation and urban municipalities sectors were the first to complete their plans and are currently working on implementation.

4.12 Continue to develop approaches to **address the climate variability** found in the region.

- Support flood management planning and preparedness including assessment of flood risk through:
  - Continuing to develop and update flood hazard mapping in communities that are at risk of flooding. Flood hazard mapping will be used in decision-making and to determine appropriate limitations for new developments and infrastructure;
  - Supporting development of municipal flood hazard mitigation plans to mitigate the threat from flooding to communities in the region; and
  - Continuing to work on modeling and data management.
- Support drought management planning and preparedness.
- Further develop climate adaptation tools and initiatives.

Efficient use of water is an important underlying principle everywhere, but is especially important in the geographic and climatic setting of southern Alberta. This valuable resource cannot be wasted. Approaches and tools will vary across sectors but the overall conservation, efficiency and productivity goals apply to all. Linked to this is the role that the established water management infrastructure in the region plays in achieving those goals. The region must also be able to adapt to the challenges related to current and projected climate variability.

Headwaters

Objective:

- *Headwaters in the region are managed to maintain recharge capabilities and support critical water quality, quantity and aquatic ecosystem requirements.*

Strategies:

4.13 **Protect key headwaters** through the establishment of conservation areas.

4.14 Continue **collaboration with the Watershed Planning and Advisory Councils on headwaters management initiatives** such as development of headwaters integrity indicators.

4.15 Review existing **water conservation objectives for headwaters tributaries** in support of the Approved Water Management Plan for the South Saskatchewan River Basin.

Integrated with Management of Crown Land
Strategy 3.11 (page 71)

The aquatic environment and the water that people in the region rely on cannot be sustained unless headwaters are protected. The importance of headwaters has been recognized in the unique geography of the eastern slopes. Headwaters in other parts of the region, although for smaller watersheds (e.g., Cypress Hills) are equally important. Collaboration and shared stewardship will be essential to achieving responsible management.

Indicators for Managing Water Supply

The following are indicators of interest that will be monitored to understand the trends occurring in the region and evaluated to assess the effectiveness of the strategies in supporting the achievement of desired outcomes:

- Annual reported water use volumes by major licence holders
- Water conservation holdback volumes through licence transfers for the Bow, Oldman and South Saskatchewan rivers
- Annual water supply volumes for the Bow, Milk, Oldman and South Saskatchewan rivers
- Percentage of time the water conservation objective targets are achieved annually for key reaches of the Bow, Oldman and South Saskatchewan rivers
- On-farm irrigation application efficiencies achieved with time

5. Efficient Use of Land

Outcome: Lands are efficiently used to minimize the amount of area taken up by the built environment.

Strategic Direction:
Promoting efficient use of land.

Recognizing that Alberta will continue to grow and develop over time, the Land-use Framework promotes approaches to reduce the amount of land that is taken up by permanent or long-term developments associated with the built environment. Examples of the built environment include urban and rural residential development, commercial and institutional development, industrial development, surface mines, oil and gas well-sites and pipelines, utility rights-of-way, infrastructure, transportation routes and recreation trails.

All land-use planners, land users and decision-makers are encouraged to consider the efficient use of land principles when land-use planning and decision-making on both public and private land. The intent of these principles is not to stop growth and development or determine which land-uses are most appropriate for a given area of land, but rather to ensure that, once the appropriate land-use is determined, it occurs in a manner that minimizes the amount of land that is taken up by development.

The principles can be considered individually or as a suite of principles based on the priorities and needs of the users. The efficient use of land principles are to be incorporated into plans and policies where appropriate to shape land management objectives and guide land-use decision-making. Planners, decision-makers and land users on public and private lands are to determine the types of tools and best practices that may be appropriate for achieving the land-use objectives for their area.

Much good work has already occurred in Alberta to promote more efficient use of both public and private lands through municipal planning and initiatives such as the Integrated Land Management program. To improve knowledge and understanding of the approaches and best practices that have been used in Alberta and other jurisdictions, the Government of Alberta has created an Integrated Land Management Tools Compendium which identifies a range of tools that can be applied to manage the development footprint on public lands.

The Government of Alberta has developed a companion tools compendium to identify tools that are more relevant to municipalities and private lands that fall under their jurisdiction. The Government of Alberta will work with municipalities, land-use decision-makers and land users, on both public and private lands, in areas of the region to build awareness and understanding of the efficient use of land principles, how they might be applied and how their effectiveness would be measured over time.

Efficient Use of Land Strategy

"Land is a limited, non-renewable resource and so it should not be wasted. Land-use decisions should strive to reduce the human footprint on Alberta's landscape. When it comes to land use, other things being equal, less is more — more choices for future generations. This principle should guide all areas of land-use decision-making..."

Land-use Framework

Use Land Efficiently

Objective:

- *The amount of land that is required for development of the built environment is minimized over time.*

Strategies:

5.1 All land-use planners and decision-makers responsible for land-use decisions are encouraged to **consider the efficient use of land principles** in land-use planning and decision-making (see Appendix I - Efficient Use of Land Principles).

1. Reduce the rate at which land is converted from an undeveloped state into permanent, built environment.
2. Utilize the minimum amount of land necessary for new development and build at a higher density than current practice.
3. Increase the proportion of new development that takes place within already developed or disturbed lands either through infill, redevelopment and/or shared use, relative to new development that takes place on previously undeveloped lands.
4. Plan, design and locate new development in a manner that best utilizes existing infrastructure and minimizes the need for new or expanded infrastructure.
5. Reclaim and/or convert previously developed lands that are no longer required in a progressive and timely manner.
6. Provide decision-makers, land users and individuals the information they need to make decisions and choices that support efficient land use.

5.2 **Build awareness and understanding of the efficient use of land principles** and the application of land-use planning tools that reduce the footprint of the built environment, how they might be applied and how their effectiveness would be measured over time with municipalities, land-use decision-makers and land users, on both public and private lands.

Indicators for Efficient-use of Land

Over time standard measures and indicators for determining how efficiently land is used will be developed to evaluate the effectiveness of efficient use of land principles, best practices and tools.

6. Outdoor Recreation and Historic Resources

Outcome: The quality of life of residents is enhanced through increased opportunities for outdoor recreation and the preservation and promotion of the region's unique cultural and natural heritage.

Strategic Direction:
Providing outdoor recreation and nature-based tourism opportunities and preserving and promoting the region's unique cultural and natural heritage.

Outdoor recreation areas are important for residents and visitors and provide areas for people to visit, play and enjoy the natural beauty of Alberta. Providing access to nature is essential for the physical and emotional health of children and adults, increasing recreational opportunities throughout the region by enhancing outdoor recreational infrastructure and amenities will increase quality of life and active living. Areas on Crown land have been identified that provide safe and sustainable outdoor recreation opportunities that contribute to healthy lifestyles and add to the diversity of recreational opportunities available in the region. These areas consist of a combination of physical, biological, cultural, constructed and/or geographical factors that can provide recreation and tourism opportunities. These areas are intended to provide quality recreational experiences, attract tourism investment and provide security of land tenure for private and not-for-profit investment.

Managing these opportunities to ensure quality outdoor recreation and nature-based tourism experiences while minimizing environmental impacts and maintaining locally, regionally and provincially significant recreation and tourism features, including sites, areas and corridors, is important. Work will continue to occur with municipalities, recreational communities and other key stakeholders, such as industry, to better manage the **recreational pressures and activities** in these areas. Furthermore, the **flood of 2013 damaged** a number of recreational areas throughout the region with the majority of impact occurring in the Bow and Oldman river basins. These areas are being assessed and where appropriate redeveloped to support recreational demand.

Land and water-based trails and routes are important in providing a diversity of outdoor recreation opportunities as well as supporting active living and enhancing the quality of life of Albertans. A **regional trails system plan** will be developed in collaboration with aboriginal communities, municipalities and other stakeholders. The trail system plan will identify and designate winter and summer motorized, non-motorized and mixed-use land- and water-based trails routes and areas that link communities and other jurisdictions such as the region's parks, outdoor spaces and recreation and tourism areas. In general, off-highway vehicle use is permitted on Crown land (see Appendix

L – SSRP Land Uses), except where it is excluded based on differences in management intent (see Appendix K – Off-Highway Vehicle Use in SSRP). The Government of Alberta will engage with First Nations and stakeholders on initiatives to designate recreational trails access when developing the regional trail system plan (see Appendix J – Overview of the South Saskatchewan Regional Trail System Plan). To help inform this process, a provincial recreation trails pilot project has been initiated. This project will be used to help determine the future direction for a coordinated, sustainable recreation trail system in the province and will explore whether a stakeholder-led, arms-length organization could play a leadership role in the development of such a system.

Water-based recreation is highly valued within the region and the need to maintain or develop access to recreational water bodies is important to provide outdoor recreation and nature-based tourism opportunities. Support of current initiatives and other potential co-operative initiatives is needed to provide stable, long-term public access to these water bodies in order to enhance water-based recreational experiences. The Government of Alberta, irrigation districts, communities and stakeholders will continue to work in collaboration to provide recreational opportunities while respecting the operation of water management infrastructure and the needs of other water users.

Education and awareness and delivery of **compliance programs** (including enforcement) to promote and support responsible land use and shared stewardship are essential to managing recreational activities to achieve environmental outcomes. Education promotes compliance by raising awareness, not only of the importance of environmental stewardship, but also of the regulatory requirements and potential consequences of not complying. Voluntary compliance is the objective, but effective compliance also depends on providing enforcement when necessary.

Education, awareness and compliance efforts will include the following:

- An “on-the-ground” program, including seasonal outreach staff with a field presence;
- Responsible use messaging providing information on requirements to avoid watercourses, water bodies and wetland areas as well as the need to avoid industrial facility areas for safety purposes;
- Continuing environmental literacy strategies intended to help build a culture of shared stewardship, for example Shared Resource: Shared Responsibility;
- Cooperative compliance programs, working with local government and other agencies, during times of heavy demand during the recreation season; and

- Support for programs promoting responsible use sponsored by the recreation community, for example the Ride with Respect program currently delivered in Alberta schools.

Writing-on-Stone Provincial Park is one of the most important sacred places for the Blackfoot people and is a significant natural landscape preserving representative native grasslands for future generations. The Government of Alberta supports the proposed nomination of Áísínai'pi / Writing-on-Stone for inscription on the World Heritage List. If successful, the site will become the sixth inscribed World Heritage site in Alberta, which will be more than any other province in Canada. The inscription of a World Heritage site does not change in any way the legal status, ownership or management of any of the lands included.

Ensuring that Albertans understand and preserve their past is key to increased heritage tourism potential, cultural understanding and future heritage research. The South Saskatchewan Region has a strong and vibrant history, demonstrated through the vast array of archaeological sites, historic structures and places, palaeontological discoveries and continued traditional land use by First Nations. The connection the people of the South Saskatchewan have to the land and its history continues and is very much a part of the overall culture of the region.

Historic resources will be managed to minimize the impacts of development on their integrity. Promoting the preservation of historic places and structures will ensure that tangible examples of the past continue to be accessible. The Government of Alberta supports this diversity of historic experience through legislation and programs to protect, preserve and promote the historic resources of the region in a manner that allows present and future generations to continue to feel connected to the past.

New and expanded provincial parks and recreation areas will provide increased capacity within the provincial parks system in the eastern slopes. Site expansions will add land for growth and enhancement of existing sites that are currently at or exceeding capacity. The expansions will facilitate diversification of the experiences offered through the parks system by offering opportunities for cross-country skiing, hiking, equestrian camping, special events and/or comfort camping. Parks were selected for expansion to ensure minimal impact to current use patterns. Investment in these sites will occur over the next several decades as demand grows and development will keep in mind the need to conserve the aesthetics of the area and to provide quality recreation and tourism experiences (see Appendix L - SSRP Land Uses).

As the park system has grown and changed over time, many sites no longer fit with the intent of their original class, or sites have been established over time next to one another and should be consolidated, or no longer reflect the current vision and use of the site. **Consolidations, reclassifications**

and reviewing potential land transfers between ministries would help to clarify the existing use of the sites and will also help create efficiencies in management, operations and cost so that resources can be allocated more effectively. Management intent would not be changed by the reclassification and/or consolidation of these sites. Sites will be reviewed and proposed reclassifications, consolidations and land transfers will be recommended and consulted upon.

Management Intent and Land Uses in Provincial Parks and Provincial Recreation Areas

Provincial parks and provincial recreation areas will be managed to minimize industrial land disturbance and ensure quality outdoor recreation experiences. Petroleum and natural gas tenure will be honoured, consistent with existing policy. The Government of Alberta will work cooperatively with companies that have existing commitments to ensure surface access impacts are minimized while still honouring these commitments. New petroleum and natural gas tenure sold in provincial parks and provincial recreation areas will include a restriction that prohibits surface access.

Existing recreational and commercial equestrian use as well as hunting, fishing and trapping (including by aboriginal peoples) will continue in accordance with existing provincial legislation governing such activities as such laws may be amended or replaced from time to time. Hunting includes commercial guiding and outfitting operations where wildlife species management plans provide an allocation for that use.

Existing grazing activities will continue in accordance with the *Provincial Parks Act* and park management objectives and, where consistent, current rangeland management requirements and policy. The government will work together with the grazing allotment permit holders when planning facility development to understand and minimize impacts to grazing operations (e.g., forage impacts and livestock travel corridors), as well as to park visitors.

Where off-highway vehicle use is permitted in provincial parks and provincial recreation areas (see Appendix L – SSRP Land Uses), it will be managed to designated off-highway vehicle trails and areas. Off-highway vehicle use is permitted only on existing off-highway vehicle trails and areas where a management plan, trails plan, regulation, sign, notice, or trail marker designates such use. In the newly established Coleman and Crowsnest Lake Provincial Recreation Areas where designation of trails or areas has not yet occurred, use of existing off-highway vehicle trails and areas can continue in the interim until the earliest of either a trail plan or management plan is developed which identifies where off-highway vehicle use will be permitted OR off-highway vehicle use is otherwise restricted by regulation. No new trails or routes or access may be developed without a management plan, trail plan or regulation. Off-highway vehicle will continue to be prohibited in the beds and shores of permanent water bodies. Furthermore, off-highway

Provincial Recreation Areas are established with a primary objective of providing outdoor recreation, nature-based tourism and education opportunities. They provide higher density camping capacity as well as support facilities and access to lakes, rivers, reservoirs for outdoor recreation or serve as motorized (i.e. Off-highway vehicles) and non-motorized staging areas to provide that access to trail systems on adjacent public lands or on adjacent rivers, lakes and reservoirs. Some areas may be intensively developed while others remain more rustic.

Provincial Parks are established for the conservation of nature (and associated cultural features) where outdoor recreation, tourism and education objectives may also be significant. Outdoor recreation activities, which promote the appreciation of the park's natural and cultural features, are promoted. A wide range of experiences and activities are possible from international tourism destinations to solitude to adventure. Experiences inspire people to reconnect with nature through leisure, learning or recreation activities. Visitors can expect outdoor recreation and nature-based tourism opportunities on site, supported by facilities and interpretive or education programs to the extent that the activities are compatible with conservation objectives.

vehicle use shall not occur on power line rights-of-way, utility corridors, or industrial facility areas (e.g., well-sites), unless specifically authorized to do so.

Recreation on Green Area Public Land

As part of the management intent for Green Area public land, the Government of Alberta aims to provide a diversity of outdoor recreation and nature-based tourism opportunities for Albertans and visitors highlighting the important recreation opportunities that public land provides while recognizing the many other activities on the landscape including petroleum and natural gas, coal, metallic and industrial minerals, grazing, tourism and forestry.

Comprehensive and integrated recreation management planning will build on existing access management plans and work done by stakeholders. This will support the creation of a sustainable recreation management system for public land and ensure areas are available to provide a range of experiences for Albertans now and in the future. To ensure the preferences, diversity and expectations of residents and visitors are met, the system for public land will include staging and camping areas, trail systems and access to the full network of recreation and tourism areas across the eastern slopes (see Appendix E – Integrated Approach for Subregional and Issue-Specific Planning).

Continued formalization of motorized and non-motorized trails with improvements to existing trails and related developments where needed will occur collaboratively. There are generally accepted planning practices that can inform this work including consideration of the trail design elements of “engineering, education, evaluation, enforcement and experience” (often referred to as the “five E’s”). Planning for new nature-based tourism development such as recreation trails and associated amenities will address environmental impact concerns, in particular near watercourses, wetlands and lakes with fisheries vulnerable to increased human access. Trails in sensitive source water or ecological areas will be assessed and may be redesigned, relocated, closed or reclaimed. Designated staging and access areas will also play a role in the management of public lands and waters to enhance the recreation experience for users. The objective is to have appropriate activities occurring in appropriate places.

New public land recreation areas will be established to provide defined “no service” camping experiences and improve access to trails. Initial suitable locations for consideration are in the area of some popular random camping sites and final locations will be confirmed through the recreation management planning process as part of implementation of the regional plan (see Strategy 6.6). They will be based on existing access, use and natural features and will be small in size (generally this would be around 1 to 10 hectares). The intention is to minimize and manage impacts and encourage responsible use. They will be developed to include basic amenities such as fire rings and gravel pads.

Currently, management of recreational activities in the **Public Land Use Zones** in the Green Area is done through posted signs and notices and regulatory tools that are specific to each Public Land Use Zone. There are two existing access management plans in place that manage motorized recreational activities and numerous areas with designated trail systems as outlined in the Ghost-Waiparous Operational Access Management Plan (2005) and the Castle Special Management Area Access Management Plan for Motorized Recreational Access (1992) as well as the trail systems identified in the Kananaskis Country Public Land Use Zone and related Public Land Use Zone maps. While recreation management planning work is underway the current plans, mapping, signage and other tools will continue to be used to manage recreation and provide clarity about access to public land. This includes use by off-highway vehicles. In Public Land Use Zones off highway vehicle use will continue as provided for under the Public Lands Administration Regulations, on designated trails as specified by signs/notices posted. For Green Area vacant public land, off-highway vehicle use will continue as provided for under the Public Lands Administration Regulation. Generally, it is a permitted activity however crossing any naturally occurring body of water or naturally occurring watercourse can only occur at a bridge or designated crossing (See Appendix K – Off-Highway Vehicle Uses in the SSRP).

Integrated with Management of Crown Land
Strategy 3.2 (page 68)

The recreation management planning will build on the existing plans, existing mapping tools and information collected by stakeholders in each area. Clustering use; improving safety for diverse users; and repairing and reducing environmental damage are important considerations.

Outdoor Recreation and Historic Resources

Objectives:

- *A wide range of recreation experiences and tourism opportunities that meet the preferences of regional residents and visitors will be provided.*
- *The artifacts, fossils, historic places and aboriginal heritage sites that define the region's distinctive character are identified and effectively managed.*

Strategies:

6.1 In collaboration with communities, industry, stakeholders and aboriginal peoples develop the **South Saskatchewan Regional Trail System Plan** to provide designated land and water trails for year-round recreation linking communities, parks and outdoor spaces. (see Appendix J - Overview of the South Saskatchewan Regional Trail System Plan).

6.2 Explore **legislative tool options** to help address liability concerns and facilitate continued work with trail groups and stewards in planning, developing and managing trails.

6.3 Address **flood (2013) damaged** recreation and parks areas including infrastructure such as campground facilities, staging areas and trails.

6.4 Support current and future projects to identify, maintain and enhance sustainable long-term public **access to recreational water bodies**.

6.5 Deliver **education, awareness and compliance programs** to promote and support responsible land use and shared stewardship.

Education, awareness and compliance efforts will include the following: an "on-the-ground" program including seasonal outreach staff with a presence; responsible use messaging; continuing environmental literacy strategies; co-operative compliance programs, working with local governments and other agencies, during times of heavy demand during the recreation season; and support for programs promoting responsible use sponsored by the recreation community.

6.6 Develop **comprehensive and integrated recreation management plans** for lands in the Green Area working with communities, industry, other stakeholders and aboriginal peoples (see Appendix E–Integrated Approach for Subregional and Issue-Specific Planning).

Priority Planning Areas and Timing for Completion of Plans

Recreation Management Planning Recreation management planning can include: access management plans, trails plan and planning for staging areas and public land recreation areas. It may cover all or parts of the areas listed.	
Area	**Completion Date (end of)**
Porcupine Hills	2015
Livingstone, Willow Creek, Allison/Chinook, McLean Creek and Sibbald	2016
Other areas and updates to existing plans (including Castle, Ghost-Waiparous)	As soon as practicable

6.7 Create new **public land recreation areas** in the eastern slopes to provide defined "no service" camping areas and improve access to trails. They will be based on existing access, use and natural features and will be small in size (generally this would be around

1 – 10 hectares). Initial suitable locations for consideration are popular random camping sites as follows and will be confirmed through the recreation management planning process (see Appendix – E Integrated Approach for Subregional and Issue-Specific Planning).

Area Name			
Atlas	Burnt Timber	Ceasar's Flat	Fallen Timber Creek
Fish Creek	Lesueur Creek	Lynx Creek Flats	McGillivray
Speers Creek	Tent Mountain	Upper Castle Flats	Waiparous Creek

6.8 In concert with developers, ensure that land-based development activities are assessed to **identify and protect historic resources**.

6.9 Ensure continued **public accessibility to information regarding historic resources in the region**.

Integrated with Land-use Policies
Historic Resources
Strategies 8.34 - 8.36
(pages 110 and 111)

6.10 **Identify and designate important historic resources** in the region with municipal partners.

6.11 Work with and support Parks Canada to nominate **Writing-on-Stone Provincial Park for inscription on the UNESCO World Heritage List**.

6.12 **Invest in existing parks facilities and expand and designate new provincial parks and provincial recreation areas** (see Appendix L - SSRP Land Uses and Schedule C - SSRP Map) to enhance the experiences of users across the region and provide recreational opportunities, contribute to tourism growth and address growing recreational demand in the region.

Refer to Regulatory Details
Part 6: Recreation and Parks Areas
(pages 172-175)

New and Expanded Recreation and Parks Areas

Map Area**	Area Name	Area Size (ha*) (added area)	Type of Change	Legal Designation
1	Elbow Valley Provincial Park	333	Reclassification, consolidation and expansion	Provincial Park
2	Sheep River	267	Expansion	Provincial Park
3	Chinook	220	Expansion	Provincial Park
4	Syncline	435	Expansion	Provincial Park
5	Cypress Hills	127	Expansion	Provincial Park
6	Sibbald Lake	83	Expansion	Provincial Recreation Area
7	Crowsnest Lake	14	New	Provincial Recreation Area
8	Coleman	32	New	Provincial Recreation Area

* hectares

** (See Schedule C – SSRP Map and Appendix L – SSRP Land Uses)

6.13 Ensure all regional sites within the **provincial parks system are appropriately classed and consolidated** and potential land transfers between ministries are reviewed to gain efficiencies in management approach.

Several reclassifications and consolidations are included in the SSRP:

- Eyrie Gap, Crane Meadow, Fir Creek, Highwood Compound will be disestablished as per the approved Kananaskis Provincial Recreation Areas and Bragg Creek Provincial Park Management Plan;
- Travers Reservoir has been disestablished as per Ministerial Order (M.O. # 29/2006);
- The provincial recreation areas within the Elbow Valley in Kananaskis Country as well as Bragg Creek Provincial Park and the 5 Elbow Valley expansion sites (West Bragg Creek, Gooseberry, Elbow River, Elbow Falls and Little Elbow) will be consolidated into one site and renamed Elbow Valley Provincial Park, as per the approved Kananaskis Provincial Recreation Areas and Bragg Creek Provincial Park Management Plan; and
- Beehive Natural Area and Mt. Livingstone Natural Area will be reclassified as wildland provincial parks.

Refer to Regulatory Details
Part 6: Recreation and Parks Areas
(pages 172-175

6.14 Manage **Recreation and Parks Areas** (see Appendix L – SSRP Land Uses) to ensure quality outdoor recreation and nature-based tourism experiences while minimizing environmental impacts.

6.15 Develop the **regional parks plan for the South Saskatchewan Region** to direct the planning and management of new and existing parks within the provincial parks system by the end of 2016. This plan will reflect the conservation, recreation and tourism values, growing demands and changing expectations of visitors.

Integrated with Tourism Development
Strategies 1.19 - 1.22
(pages 50 and 51)

A growing, prosperous and mobile population is changing the type of experiences for which people are looking and putting more pressure on the landscape. More people are seeking outdoor recreation and nature-based tourism opportunities such as camping, picnic and day-use areas, or trail-based recreation, as well as larger and more varied special events using Crown land and public facilities. In addition to identifying the three destination management areas, there is a need for diverse outdoor recreation and nature-based tourism opportunities close to urban centres and for the maintenance of the values that make this region so attractive for recreationalists and tourists alike.

Indicators for Outdoor Recreation and Historic Resources

The following are indicators of interest that will be monitored to understand the trends occurring in the region and evaluated to assess the effectiveness of the strategies in supporting the achievement of desired outcomes:

- Number of historic resources studies conducted
- Number of new and previously identified historic resources protected and managed
- Parks per capita
- Recreation infrastructure
- Historic resources

7. Aboriginal Peoples

Outcome: Aboriginal peoples are included in land-use planning.

Strategic Direction:
Inclusion of aboriginal peoples in land-use planning.

Aboriginal culture, with its connection to the land and environment, provides a unique opportunity to inform land-use planning and land management initiatives. The Government of Alberta will continue to look for opportunities to engage aboriginal peoples and to identify ways of working together. First Nations will be invited to share their traditional knowledge to inform land and natural resource planning in this region and will have access to information and communication products which will help their communities better understand the work of government.

The sub-table process is participant driven and adapted to the unique requirements of each aboriginal community. Priorities established at the regional level, with Chiefs and Ministers, will guide the aspects of a water sub-table and land-use sub-table, how they relate, how they differ and whether they continue as one. Opportunities for First Nation involvement in the collaborative work of Watershed Planning and Advisory Councils in the region will continue to be encouraged.

The Treaty 7 Tourism Development Initiative will inform on-going work to identify tourism and cultural experiences that may provide economic opportunities to aboriginal communities. Participation in the regional economy will be encouraged as well as maintaining and seeking opportunities for aboriginal traditional land uses within the region.

Water Sub-Table

At a Protocol Agreement meeting with the Premier of Alberta in 2009, the Grand Chiefs requested and later it was agreed that a water sub-table be established to provide input on the province's water allocation management system. The province is committed to having meaningful conversations with Albertans to hear their input and advice. Discussions through the water sub-table can contribute to these water conversations.

Given the unique regional dynamics and differing water issues between the northern, central and southern regions the water sub-table consists of three sub-tables – one for each Treaty Area. The Government of Alberta and First Nations establish the strategic direction and identify the joint priorities for each water sub-table.

Treaty 7 was identified as the top priority largely due to issues of water scarcity in the South Saskatchewan River Basin. The joint priorities and goals of the Treaty 7 Water Sub-Table include:

- working together to understand current and future water needs of First Nations; and
- working towards water agreements between individual First Nations and Alberta to ensure First Nations water security.

In accordance with applicable government policy as it may be from time to time, the Government of Alberta will continue to consult with aboriginal peoples when government decisions may adversely affect the continued exercise of their constitutionally protected rights and the input from such consultations continues to be considered prior to the decision.

Inclusion of Aboriginal Peoples in Land-use Planning

Objective:

- *To encourage aboriginal peoples' participation in land-use planning and input to decision-making in recognition of the cultural and economic importance of land use to those aboriginal communities with constitutionally protected rights. This will provide both aboriginal communities and the Government of Alberta with a basis for better addressing current and potential land-use conflicts, in a manner supportive of aboriginal traditional uses, such as the exercise of treaty rights.*

Strategies:

7.1. In accordance with applicable government policy as it may be from time to time, the Government of Alberta will continue to **consult with aboriginal peoples** in a meaningful way when government decisions may adversely affect the continued exercise of their constitutionally protected rights and the input from such consultations continues to be considered prior to the decision.

7.2. Explore and present potential new approaches to draw on the rich **cultural, ecological and traditional land-use knowledge and stewardship practices** of aboriginal communities.

7.3. Establish a **South Saskatchewan Region Land Sub-Table** with First Nations with an interest in the region. This initiative will consider:

- Development of a mechanism for engagement and strategic consultation;
- Fish and wildlife management, access management and economic/business opportunities;
- Management of current and new conservation areas and public land;
- Strategic direction and joint priorities; and
- Linkages for environmental management frameworks and sub-tables (e.g., land, water, biodiversity).

7.4. Continue First Nation involvement in the following **watershed management planning initiatives**:

- Treaty 7 First Nations Water Sub-Table;
- Understanding First Nations existing and future water needs;
- Developing and implementing water agreements with interested First Nations;
- Encouraging First Nation participation in Watershed Planning and Advisory Councils; and
- Encouraging First Nation involvement in headwaters management.

7.5. Engage aboriginal peoples on initiatives to **support tourism development** including:

- Tourism opportunity assessments;
- The promotion of cross-cultural awareness and sharing cultural experience through visitor-based activities;
- Opportunities to align and enhance partnerships at the provincial, regional and local levels to enhance Alberta's range of products while promoting and protecting natural resources, cultural practices and heritage lifestyles;
- The development of partnerships based on the provision of aboriginal-recognized traditional tourism products, experiences, stories and imaginative product diversification;
- The development of new or enhanced existing tourism products and infrastructure – including attractions, activities, amenities, accommodations; and
- Invite Treaty 7 First Nations to be involved in the Treaty 7 - Tourism Development Engagement Group Initiative to:
  - Consider opportunities to balance tourism product expansion with the needs of communities through business opportunities;
  - Enhance development and delineation of tourism development nodes and iconic tourism destinations; and
  - Consider the connection with Canada's federal tourism strategy regarding Parks Canada and Aboriginal Affairs and Northern Development Canada who are conducting pilot projects for aboriginal cultural tourism businesses in or near Canada's national parks and historic sites.

7.6. Promoting the **economic, social and cultural well-being** of aboriginal communities.

- Strike the appropriate balance between development and protection of the environment, with due regard to aboriginal peoples perspectives on such balance.

7.7. Encourage and facilitate **information sharing and education opportunities** between First Nations with an interest in the region and the Government of Alberta.

- Provide information products to help guide and inform First Nations of the opportunities for the practice of traditional uses, such as the exercise of treaty rights, on lands within Alberta's provincial parks system.

Indicators for Inclusion of Aboriginal Peoples in Land-use Planning

The following are indicators of interest that will be monitored to understand the trends occurring in the region and evaluated to assess the effectiveness of the strategies in supporting the achievement of desired outcomes:

- Participation of First Nations in the Treaty 7 – Tourism Development Engagement Group Initiative
- Participation of First Nations in the South Saskatchewan Region Land Sub-Table
- Participation of First Nations in implementation of the regional plan
- Aboriginal peoples continue to be consulted when Government of Alberta decisions may adversely affect their continued exercise of their constitutionally protected rights and the input from such consultation continues to be reviewed prior to the decision

8. Community Development

Outcome: Community development needs are anticipated and accommodated.

Strategic Direction:
Strengthening communities.

Alberta's success starts at the community level, the places Albertans call home. Communities, urban or rural, big or small, are where life happens. Development resulting from the projected population growth in the South Saskatchewan Region will require thoughtful and intentional management of the landscape. There is a need to explore ways to engage communities that will help improve collaboration and processes for decisions that make wise use of land, air and water. To effectively address the challenges that increased future growth will bring to the South Saskatchewan Region all decision-makers will require collaboration with stakeholders in order to achieve the regional outcomes.

Land-use planning is both a municipal and provincial activity. The province's responsibility, with certain exceptions, extends to managing air, water and renewable and non-renewable natural and historic resources. Provincial legislation, policies and programs for land-use planning and resource management can affect municipal interests. Conversely, municipal decisions and actions affecting land-use and development can impact the success of provincial objectives designed for the benefit of all Albertans. It is therefore important that municipal and provincial planning efforts pursue a high level of collaboration, coordination and integration. This cooperation extends to providing infrastructure linked to land use, such as transportation networks, municipal services, recreation, leisure and cultural facilities and other institutional uses.

The Government of Alberta is committed to continuing to encourage and promote this collaborative approach in the South Saskatchewan Region. One of the models is the Calgary Regional Partnership, a voluntary partnership consisting of municipalities in the Calgary region working together to address issues of a regional nature in the Calgary Metropolitan Plan. Other inter-municipal initiatives include inter-municipal development plans, regional services commissions, irrigation districts and Watershed Planning and Advisory Councils, to name a few.

All municipalities, urban and rural, are considered to be in the forefront of building strong and sustainable communities. The Government of Alberta is committed to providing policy direction that:

- Encourages communication, cooperation and collaboration for collective impact;

Provincial Land-Use Policies

Land-use policies established by Lieutenant Governor In Council pursuant to Section 622 of the *Municipal Government Act* Order in Council 522-96 – November 6, 1996, do not apply in any planning region within the meaning of the *Alberta Land Stewardship Act* (ALSA) where there is an ALSA regional plan in place.

By incorporating updated broad land-use policy statements in the South Saskatchewan Regional Plan, the Province retains authority to provide guidelines to municipalities on expectations needed to promote cooperation and coordination in land-use planning to reflect the uniqueness of the region.

- Gives people a sense of belonging through shared values;
- Promotes participation and mutual responsibility;
- Leverages resources from both inside and outside the community;
- Fosters a stable, innovative local economy that provides employment opportunities and generates wealth; and
- Protects and effectively manages the local environment.

In supporting the regional outcomes, municipal decisions in the region should aim to:

- Make efficient use of land, infrastructure, public services and public facilities to establish land-use patterns that influence human activity, facilitate health and well-being and promote social interaction and inclusion;
- Promote resource conservation;
- Protect, enhance and promote the historic and cultural integrity of an area;
- Enhance economic development activities;
- Minimize environmental impacts on land, air and water;
- Protect significant natural environments;
- Contribute to the development of healthy, safe and sustainable communities; and
- Contribute to a safe, efficient and cost-effective provincial transportation network.

Regional planning is aimed at guiding and directing land-use decisions in Alberta and the Government of Alberta recognizes there is a link between how land is used and the achievement of desired social and community outcomes. The Government of Alberta's Social Policy Framework includes two key outcomes that the SSRP will help to achieve: "Albertans are healthy," and "Albertans are active and engaged[28]."

The air and surface water quality frameworks for the South Saskatchewan Region add to the province's existing environmental management system and will contribute to safeguarding the health of Albertans by helping to maintain air and water quality. In addition, by encouraging municipalities to coordinate land-use planning activities with health authorities on areas of mutual interest, SSRP will contribute to the provision of health care services in local communities.

New and expanded outdoor recreational spaces and conservation areas on public lands provide places for Albertans to actively participate in recreational activities and cultural experiences such as camping, hiking, bird-watching, berry picking, hunting, fishing and outdoor photography. Municipalities are

28 Alberta's Social Policy Framework, February 2013

encouraged to work with the Government of Alberta and other partners on planning for future infrastructure needs, including accessible recreational spaces and on identifying and preserving significant historic resources. This will help provide Albertans with new opportunities for rich cultural experiences and new ways to become active and engaged members of their communities.

Planning Cooperation and Integration

Objectives:

- *Cooperation and coordination are fostered among all land-use planners and decision-makers involved in preparing and implementing land plans and strategies.*
- *Knowledge sharing among communities is encouraged to promote the use of planning tools and the principles of efficient use of land to address community development in the region.*

Calgary Regional Partnership

- *Work together to ensure growth occurs in a sustainable manner in the region.*

Strategies:

When making land-use decisions, municipalities, provincial departments, boards and agencies and other partners are expected to:

8.1 Work together to achieve the shared environmental, economic and social outcomes in the South Saskatchewan Regional Plan and minimize negative environmental cumulative effects.

8.2 Address common planning issues, especially where valued natural features and historic resources are of interests to more than one stakeholder and where the possible effect of development transcends jurisdictional boundaries.

8.3 Coordinate and work with each other in their respective planning activities (such as in the development of plans and policies) and development approval processes to address issues of mutual interest.

8.4 Work together to anticipate, plan and set aside adequate land with the physical infrastructure and services required to accommodate future population growth and accompanying community development needs.

8.5 Build awareness regarding the application of land-use planning tools that reduce the impact of residential, commercial and industrial developments on the land, including approaches and best practices for promoting the efficient use of private and public lands.

8.6 Pursue joint use agreements, regional service commissions and any other joint cooperative arrangements that contribute specifically to intermunicipal land-use planning.

8.7 Consider the value of intermunicipal development planning to address land use on fringe areas, airport vicinity protection plans or other areas of mutual interest.

8.8 Coordinate land-use planning activities with First Nations, irrigation districts, school boards, health authorities and other agencies on areas of mutual interest.

The Government of Alberta is expected to:

8.9 Build awareness and work with municipalities to implement strategies that support achieving the regional outcome that community development needs are anticipated and accommodated.

Calgary Regional Partnership

8.10 The Government of Alberta recognizes the significance and importance of the Calgary Regional Partnership, and the Calgary Metropolitan Plan, in contributing to the objectives of the South Saskatchewan Regional Plan.

These policies would foster cooperation and coordination between neighbouring municipalities and between municipalities and provincial departments, boards and agencies and other jurisdictions in addressing planning issues and in implementing plans and strategies.

Building Sustainable Communities

Objectives:

- ***Ensure provincial guidance is provided to municipalities and other stakeholders to:***
  - *promote healthy and sustainable communities;*
  - *foster the establishment of land-use patterns for an orderly, economical and beneficial development, as well as to maintain and improve the quality of the built environment;*
  - *support timely planning and provision of social infrastructure;*
  - *contribute to the "maintenance and enhancement" of a healthy natural environment;*
  - *foster preservation of historic resources through responsible land-use management;*
  - *contribute to a safe, efficient and cost-effective transportation network; and*
  - *minimize risks to health, safety and loss to property damage as a result of land-use decisions.*

While the following strategies are mainly provided to municipalities for consideration in their planning and decision-making, provincial departments, boards and agencies and other partners are also encouraged to participate, cooperate and facilitate in this community development process.

These policies are presented in a general manner which allows municipal interpretation and application in a locally meaningful and appropriate fashion. Municipalities and provincial departments and agencies are expected to consult with one another where questions on the spirit and intent of these policies arise during implementation. These policies provide a framework for municipalities to undertake local planning and to make local land-use decisions. In applying these policies, municipalities must assess the importance of each policy in relation to the others in light of local and inter-municipal priorities. Municipalities must have regard to the cumulative effect of all the policies as well as to the specific effect of each policy.

Strategies:

Land-use Patterns

Municipalities are expected to establish land-use patterns which:

8.11 Provide an appropriate mix of agricultural, residential, commercial, industrial, institutional, public and recreational land uses; developed in an orderly, efficient, compatible, safe and economical manner.

8.12 Contribute to a healthy environment, a healthy economy and a high quality of life.

8.13 Provide a wide range of economic development opportunities, stimulate local employment growth and promote a healthy and stable economy. Municipalities are also expected to complement regional and provincial economic development initiatives.

8.14 Feature innovative housing designs, range of densities and housing types such as mixed-use, cluster developments, secondary suites, seniors' centres and affordable housing. Provide the opportunity for a variety of residential environments which feature innovative designs and densities and which make efficient use of existing facilities, infrastructure and public transportation.

8.15 Minimize potential conflict of land uses adjacent to natural resource extraction, manufacturing and other industrial developments.

8.16 Minimize potential conflict of land uses within and adjacent to areas prone to flooding, erosion, subsidence, or wildfire.

8.17 Complement their municipal financial management strategies, whereby land use decisions contribute to the financial sustainability of the municipality.

8.18 Locate school and health facilities, transportation, transit and other amenities appropriately, to meet increased demand from a growing population.

A range of land uses creates conducive and attractive places for residents to access different types of housing, to promote independence, security, health and dignity for individuals and enhancing the economic and social well-being of communities.

Agriculture

Municipalities are expected to:

8.19 Identify areas where agricultural activities, including extensive and intensive agricultural and associated activities, should be the primary land use in the region.

8.20 Limit the fragmentation of agricultural lands and their premature conversion to other, non-agricultural uses, especially within areas where agriculture has been identified as a primary land use in the region. Municipal planning, policies and tools that promote the efficient use of land should be used where appropriate to support this strategy.

8.21 Employ appropriate planning tools to direct non-agricultural subdivision and development to areas where such development will not constrain agricultural activities, or to areas of lower-quality agricultural lands.

8.22 Minimize conflicts between intensive agricultural operations and incompatible land uses by using appropriate planning tools, setback distances and other mitigating measures.

Maintaining an agricultural land base recognizes the value of agricultural land for sustainable growth and diversification of the agricultural industry as well as providing an opportunity for expansion of agricultural production and value-added agribusinesses in the region.

Water and Watersheds

Municipalities are expected to:

8.23 Utilize or incorporate measures which minimize or mitigate possible negative impacts on important water resources or risks to health, public safety and loss to property damage due to hazards associated with water, such as flooding, erosion and subsidence due to bank stability issues, etc., within the scope of their jurisdiction.

8.24 Incorporate measures in future land-use planning decisions to mitigate the impact of floods through appropriate flood hazard area management and emergency response planning for floods.

8.25 Prohibit unauthorized future use or development of land in the floodway in accordance with the *Flood Recovery and Reconstruction Act* and the Floodway Development Regulation under development, which will control, regulate or prohibit use or development of land that is located in a floodway and define authorized uses.

8.26 Identify and consider, based on available information including information from the Government of Alberta, the values of significant water resources and other water features, such as ravines, valleys, riparian lands, stream corridors, lakeshores, wetlands and unique environmentally significant landscapes, within their boundaries.

8.27 Determine appropriate land-use patterns in the vicinity of these significant water resources and other water features.

8.28 Consider local impacts as well as impacts on the entire watershed.

8.29 Consider a range of approaches to facilitate the conservation, protection or restoration of these water features and the protection of sensitive aquatic habitat and other aquatic resources.

8.30 Establish appropriate setbacks from waterbodies to maintain water quality, flood water conveyance and storage, bank stability and habitat.

8.31 Assess existing developments located within flood hazard areas for long-term opportunities for redevelopment to reduce risk associated with flooding, including human safety, property damage, infrastructure and economic loss.

8.32 Facilitate public access and enjoyment of water features, to the extent possible.

8.33 Use available guidance, where appropriate, from water and watershed planning initiatives in support of municipal planning.

These policies ensure the safety and security of individuals, communities and property from hazards associated with water, such as flooding, erosion and subsidence due to bank stability issues; allow the protection of water resources, including lakes, rivers and streams, bed and shores and other water features; and would encourage environmental stewardship, responsible development and public access to provincial water bodies and watersheds.

Historic Resources

Municipalities, in consultation with the Minister responsible for the *Historical Resources Act*, are expected to:

8.34 Identify significant historic resources to foster their preservation and enhancement for use and enjoyment by present and future generations.

8.35 Work toward the designation of Municipal Historic Resources to preserve municipally significant historic places.

8.36 Formulate agreements with the Ministry for development referrals to assist in the identification and protection of historic resources within the scope of their jurisdiction.

These policies ensure the preservation, rehabilitation and reuse of Alberta's cultural and historic resources.

Transportation

Municipalities, in consultation with the Minister responsible for the *Highways Development and Protection Act*, are expected to:

8.37 Identify the location, nature and purpose of key provincial transportation corridors and related facilities.

8.38 Work with the Ministry to minimize negative interactions between the transportation corridors and related facilities identified in accordance with strategy 8.37 above and the surrounding areas and land uses through the establishment of compatible land-use patterns.

8.39 Enter into highway vicinity agreements with the Ministry and employ appropriate setback distances and other mitigating measures relating to noise, air pollution and safety to limit access if subdivision and development is to be approved in the vicinity of the areas identified in accordance with 8.37 above.

These policies assist in creating safe, cost effective transportation systems that meet existing and future needs for economic growth, community development and diversification.

Indicator for Community Development

The following indicator of interest will be monitored and evaluated to understand the trends occurring in the region:

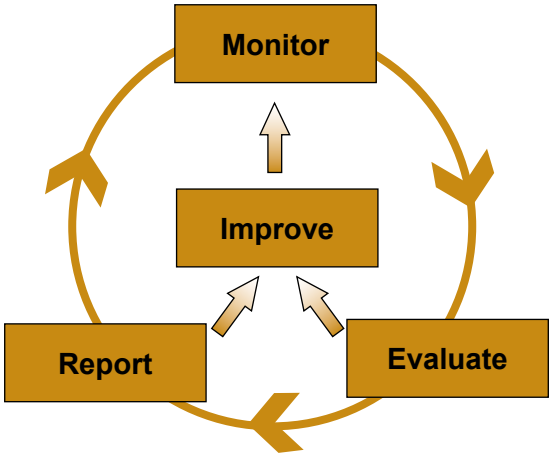
- Population

Monitoring, Evaluation and Reporting

Monitoring, evaluation and reporting are key activities for the success of the South Saskatchewan Regional Plan. To respond effectively to changing circumstances and new information, government must have a way to assess regional planning progress on objectives and outcomes and initiate corrective action where required. A system of monitoring, evaluation, reporting and improvement is needed to determine the effectiveness of the regional plan (that is, to determine if land-use strategies and actions will fulfill the regional plan's objectives and outcomes).

Refer to Regulatory Details
Part 7: Monitoring and Reporting
(pages 175-176)

Monitoring



On an ongoing basis, government will systematically collect and store data for indicators about progress toward the achievement of the SSRP outcomes. The indicators identified in Table 1 show the broad economic, environmental and social outcomes desired for the region. Government will be responsible for collecting data for these indicators over the span of the regional plan and for monitoring data trends showing changes occurring in the region.

Evaluation

The monitoring data will undergo rigorous evaluation, analysis and interpretation of results within the context of government policies and strategies designed to achieve the regional objectives and to ensure that management actions are appropriate spatially and temporally.

This includes ministerial evaluation of monitoring data against the limits and triggers established for the region. Wherever possible, the contributions of subject matter experts within the stakeholder community will be encouraged as input into this process.

Reporting

Government will use various mechanisms to formally communicate regional plan progress to the public, including the release of reports on a regular basis that speak directly to the plan, as well as ministry communications that address more specific aspects of the plan. Websites like the Land-use Framework site (www.landuse.alberta.ca) and other government websites will also be sources for monitoring information and progress updates related to the SSRP.

At least once every five years, an audit committee will be appointed to determine if regional objectives and policies are meeting the purposes of the *Alberta Land Stewardship Act*. The committee will make a public report to the Stewardship Minister. At least once every 10 years, a comprehensive review of the plan and a report on its effectiveness will be initiated by the Land Use Secretariat and submitted to the Stewardship Minister. This review may result in the plan being amended, replaced, renewed or repealed.

Continuously Improving

This on-going cycle of monitoring, evaluating and reporting encourages continuous improvements in decision-making and actions, so current and future generations achieve the desired balance between economic, environmental and social outcomes in the South Saskatchewan Region.

Table 1:
Regional Outcomes and Supporting Indicators

The table below identifies the indicators of interest that are representative of the broad economic, environmental and social outcomes desired for the region. Government will be responsible for collecting data for these indicators over the span of the regional plan and for monitoring and evaluating the data to understand the trends occurring in the region. Regional outcomes will be tracked within the context of provincial outcomes identified in the Land-use Framework.

Regional Outcomes	Supporting Indicators	Lead Ministry
Provincial Outcome: Healthy economy supported by our land and natural resources		
1. The region's economy is growing and diversified	Gross domestic product	Innovation/ Advanced Education
	Business establishments	Innovation/ Advanced Education
	Inventory of major products	Innovation/ Advanced Education
	Building permits	Innovation/ Advanced Education
	Employment	Innovation/ Advanced Education
	Average total income	Treasury Board and Finance
	Agricultural land fragmentation	Agriculture and Rural Development
	Agricultural land conversion	Agriculture and Rural Development
Provincial Outcome: Healthy ecosystems and environment		
2. Air quality is managed to support healthy ecosystems and human needs through shared stewardship	Air quality	Environment and Sustainable Resource Development

Regional Outcomes	Supporting Indicators	Lead Ministry
3. Biodiversity and ecosystem function are sustained through shared stewardship	Biodiversity (to be determined as part of biodiversity management framework)	Environment and Sustainable Resource Development
	Area of conserved land	Environment and Sustainable Resource Development
4. Watersheds are managed to support healthy ecosystems and human needs through shared stewardship	Water quantity	Environment and Sustainable Resource Development
	Water quality	Environment and Sustainable Resource Development
5. Land is used efficiently to reduce the amount of area that is taken up by permanent or long-term developments associated with the built environment	Indicators in development	Municipal Affairs
Provincial Outcome: People-friendly communities with ample recreational and cultural opportunities		
6. The quality of life of residents is enhanced through increased opportunities for outdoor recreation and the preservation and promotion of the region's unique cultural and natural heritage	Parks per capita	Tourism, Parks and Recreation
	Recreation infrastructure	Tourism, Parks and Recreation
	Historic resources	Culture
7. Aboriginal peoples are included in land-use planning	Aboriginal peoples continue to be consulted when Government of Alberta decisions may adversely affect their continued exercise of their constitutionally protected rights and the input from such consultation continues to be reviewed prior to the decision	Environment and Sustainable Resource Development/ Tourism, Parks and Recreation/Energy/ Aboriginal Relations
8. Community development needs are anticipated and accommodated	Population	Treasury Board and Finance

Table 2:
Regional Outcomes and Action Items

Strategies describe regulatory and non-regulatory approaches that will be used to achieve the objectives identified for each regional outcome. While some strategies identified in the SSRP are already implemented and will be ongoing over the span of the regional plan, the table below identifies the strategies that will be implemented within an identified timeline. Regional outcomes will be tracked within the context of provincial outcomes identified by the Land-use Framework.

Regional Outcomes	Strategies	Lead Ministry	Timeline (year end)
Provincial Outcome: Healthy economy supported by our land and natural resources			
1. The region's economy is growing and diversified	Tourism destination areas: Develop and implement destination management strategies and destination management plans.	Tourism, Parks and Recreation	As soon as practicable
Provincial Outcome: Healthy ecosystems and environment			
2. Air quality is managed to support healthy ecosystems and human needs through shared stewardship	Implement the South Saskatchewan Region Air Quality Management Framework.	Environment and Sustainable Resource Development	Sept. 1, 2014
3. Biodiversity and ecosystem function are sustained through shared stewardship	Complete the South Saskatchewan Region Biodiversity Management Framework.	Environment and Sustainable Resource Development	2015
	Develop a linear footprint management plan for Green Area and White Area public lands with priority planning for the Porcupine Hills and Livingstone areas.	Environment and Sustainable Resource Development	2015
	Complete linear footprint management plan for Green Area and White Area public lands for remaining areas.	Environment and Resource Development	2017

Regional Outcomes	Strategies	Lead Ministry	Timeline (year end)
	Review Integrated Resource Plans in the region for their relevance and incorporate under this regional plan.	Environment and Sustainable Resource Development	2015
	Complete the Majorville Guidelines for Land and Resource Management.	Environment and Sustainable Resource Development	2015
	Establish new or expand existing conservation areas on provincial Crown land.	Tourism, Parks and Recreation/ Environment and Sustainable Resource Development	As soon as practicable
	Establish the Pekisko Special Management Area and complete management plan.	Environment and Sustainable Resource Development/ Tourism, Parks and Recreation	2015
	Complete the development and evaluation of the Southeast Alberta Conservation Offset Pilot.	Agriculture and Rural Development	2015
4. Watersheds are managed to support healthy ecosystems and human needs through shared stewardship	Implement the South Saskatchewan Region Surface Water Quality Management Framework.	Environment and Sustainable Resource Development	Sept. 1, 2014
	Develop a comprehensive approach for groundwater management.	Environment and Sustainable Resource Development	2017
	Develop a water storage opportunities study for the South Saskatchewan River Basin.	Agriculture and Rural Development	2015
5. Land is used efficiently to reduce the amount of area that is taken up by permanent or long-term developments associated with the built environment	Strategies are ongoing.	Municipal Affairs	Ongoing

Regional Outcomes	Strategies	Lead Ministry	Timeline (year end)
People-friendly Communities with Ample Recreation and Culture Opportunities			
6. The quality of life of residents is enhanced through increased opportunities for outdoor recreation and the preservation and promotion of the the region's unique cultural and natural heritage	Develop the South Saskatchewan Regional Trail System Plan.	Tourism, Parks and Recreation	As soon as practicable
	Address flood (2013) damaged recreation areas.	Tourism, Parks and Recreation/ Environment and Sustainable Resource Development	As soon as practicable
	Complete recreation management planning for the Porcupine Hills.	Environment and Sustainable Resource Development	2015
	Complete recreation management planning for Livingstone, Willow Creek, Allison/Chinook, McLean Creek and Sibbald areas.	Environment and Sustainable Resource Development	2016
	Complete recreation management planning and/or update existing plans for other areas (including Castle, Ghost-Waiparous).	Environment and Sustainable Resource Development	As soon as practicable
	Create Public Lands Recreation Areas in the eastern slopes areas.	Environment and Sustainable Resource Development	As soon as practicable
	Invest in existing parks facilities and designate new Provincial Parks and Provincial Recreation Areas.	Tourism, Parks and Recreation	As soon as practicable
	Develop a regional parks plan for the South Saskatchewan Region.	Tourism, Parks and Recreation	2016
7. Aboriginal peoples are included in land-use planning	Establish a South Saskatchewan Region Land Sub-Table with interested First Nations in the region.	Environment and Sustainable Resource Development	Ongoing

Regional Outcomes	Strategies	Lead Ministry	Timeline (year end)
	Continue First Nation involvement in watershed management planning initiatives.	Environment and Sustainable Resource Development	Ongoing
	Engage aboriginal peoples on initiatives to support tourism development.	Tourism, Parks and Recreation	Ongoing
	Encourage and facilitate information sharing and education opportunities between First Nations with an interest in the region and the Government of Alberta.	Tourism, Parks and Recreation/ Environment and Sustainable Resource Development	Ongoing
8. Community development needs are anticipated and accommodated	Build awareness and work with municipalities to implement land-use strategies.	Municipal Affairs	Ongoing

Glossary of Terms

Aboriginal peoples of Alberta
Includes those First Nations and Métis communities of Alberta that hold constitutionally protected rights within the meaning of section 35 of the *Constitution Act*, 1982.

Airshed
A geographic area that, because of emissions, topography and meteorology typically experiences similar air quality.

Animal Unit Months (AUM)
Refers to the amount of forage needed by an "animal unit" for one month and is used to assist in determining the stocking rate for grazed livestock. An animal unit is defined as one mature 1,000 pounds (455 kilograms) cow and her calf (up to six months of age), which are assumed to consume 26 pounds of dry matter forage per day. Various other types of livestock are also assigned AUM equivalents based on their size and forage consumption or metabolic requirement (e.g., a mature bull is the equivalent of 1.3 animal unit months).

Aquifer
An underground water-bearing formation that is capable of yielding water.

Aquatic environment
The components of the earth related to, living in or located in or on water or the beds or shores of a water body, including but not limited to all organic and inorganic matter and living organisms and their habitat, including fish habitat and their interacting natural systems.

Beneficial Management Practices (BMPs)
Management practices or techniques recognized to be the most effective and practical means for meeting goals, while minimizing adverse environmental and other effects.

Bioenergy
Any renewable energy or fuel derived from biological sources. There are several potential feedstocks for bioenergy in Alberta including agricultural products (such as corn or canola), forestry waste and livestock waste.

Conversion of Agricultural Land
Refers to land-use change from an agricultural use to a non-agricultural use, such as urban development. Conversion may be temporary, even if long-term (e.g., upstream oil and gas development) or permanent (e.g., country residential, urban and/or industrial development).

Crown land
Crown land includes all provincial and federal government lands. Provincial parks (administered under the *Provincial Parks Act*) and surface and subsurface of public land (administered under the *Public Lands Act* and the *Mines and Minerals Act*) are examples of provincial Crown land.

Cumulative effects
The combined effects of past, present and reasonably foreseeable land-use activities, over time, on the environment.

Disturbance
A discrete force that causes significant change in structure and/or composition through natural events such as fire, flood, wind or earthquake; mortality caused by insect or disease outbreaks, or by human caused events.

Ecosystems
The interaction between organisms, including humans and their environment. Ecosystem health/integrity refers to the adequate structure and functioning of an ecosystem, as described by scientific information and societal priorities.

Ecosystem function
Processes that are necessary for the self-maintenance of an ecosystem such as primary production, nutrient cycling, decomposition, etc. The term is used primarily as a distinction from values.

Forest Management Agreement (FMA)
A large, area-based agreement between the Province of Alberta and a company. It gives the company the right to establish, grow, harvest and remove timber from a particular area of land.

Fragmentation
The process of reducing the size and connectivity of an eco-region or habitat. The resulting reduction in the total habitat area, the isolation of patches of habitat from each other and the increase in edge effects can affect the ability of organisms to maintain healthy populations and to survive.

Fragmentation of Agricultural Land
Occurs when once contiguous agricultural areas become divided into separate fragments isolated from each other by other, non-agricultural land uses. Fragmentation can also occur within a given agricultural parcel of land by access roads, oil and gas developments and/or linear infrastructure.

Green Area
The unsettled portion of the province, primarily forest lands not available for agricultural development other than grazing.

Habitat
The sum of the environmental conditions in which an organism lives, or the physical and biological environment that provides essential food, water and shelter for an organism.

Headwaters
The source and upper tributaries of a stream or river.

Historic resources
Any works of nature or of humans that are primarily of value for their palaeontological, archaeological, prehistoric, historic, cultural, natural, scientific or aesthetic interest.

Multi-use corridors
A dedicated land area identified by Cabinet for co-location of linear infrastructure that supports critical economic linkages and is in the public interest. May include one or more of: public highways and roads, electric transmissions, high-speed rail and rail, pipelines, water management, telecommunication towers and underground fibre-optic cables and recreation trails.

Nature-based tourism
Tourism that is undertaken largely or solely for the purpose of enjoying natural attractions and engaging in outdoor activities, whether for relaxation, discovery or adventure (e.g., camping, bird watching, trail riding, downhill skiing, hunting, mountain biking, motorized recreation.

Non-point source
Pollution from diffuse points with no point of origin.

Point source
Pollution that originates from one, easily identifiable cause or location.

Private lands
Lands privately owned by individuals, groups, companies or organizations that make decisions about how it is used or managed within existing legislation.

Public lands
Land owned by the provincial government, which makes decisions about how it is used and managed, including for agriculture, forestry, resource development, habitat conservation and protection of watersheds and biodiversity.

Reclamation
The process of reconverting disturbed land to its former use or other productive use (equivalent land capacity).

Recreation
All those things that a person or group chooses to do in order to make their leisure time more interesting, more enjoyable and more personally satisfying so as to enhance social functioning, assist in individual and community development and improve quality of life.

Recreation feature
A biophysical, amenity, cultural or historic feature which supports or has the potential to support one or more recreation/tourism activities.

Recreation opportunity
The availability for a person to engage in a preferred activity within a preferred setting to obtain a desired experience.

Riparian lands
The areas where water and land meet and interact. They usually are distinctly different from surrounding lands because of unique soil and vegetation characteristics that are influenced by the presence of water above the ground and below the surface.

Shared stewardship
An ethic whereby citizens, industry, communities and governments work together to responsibly care for and manage natural resources and the environment.

Subsurface
Subsurface is used to describe the resources (e.g., oil and gas, coal, metallic and industrial minerals such as limestone) identified in the *Mines and Minerals Act*. It also refers to titles, rights and activities to access those resources below the ground. Subsurface resources do not include sand and gravel as these are considered surface materials.

Surface
Resources, activities and development that occur on the land (e.g., sand, gravel, topsoil, roads and buildings). In land ownership, surface title includes the land and the space above and any sand, gravel, peat, clay or other substances that can be excavated through surface activities. Land titles usually carry a mineral reservation, which excludes subsurface resources; mineral titles for those resources are usually granted separately.

Tourism
Marketing of the enjoyable and other features of a travel destination and provision of facilities and services for the pleasure of travelers (tourists).

Tourism development nodes

Areas on public, municipal and private lands that have been identified through planning as comprising a cluster of natural and built features, scenery and settings providing unique opportunities for potential recreation and tourism development. Tourism nodes will be positioned through a collaborative process with the support of the associated land manager and will be utilized to focus potential tourism investment and infrastructure development.

Tourism destination areas

Tourism destination areas offer a variety of quality, unique and appealing experiences that contain a wide range of tourism products in the form of accommodations, attractions, events, activities and amenities. They are provincially unique and awe-inspiring areas that have the potential to become iconic tourism destinations that attract visitation.

Watershed

All lands enclosed by a continuous hydrologic-surface drainage divide and lying upslope from a specified point on a stream.

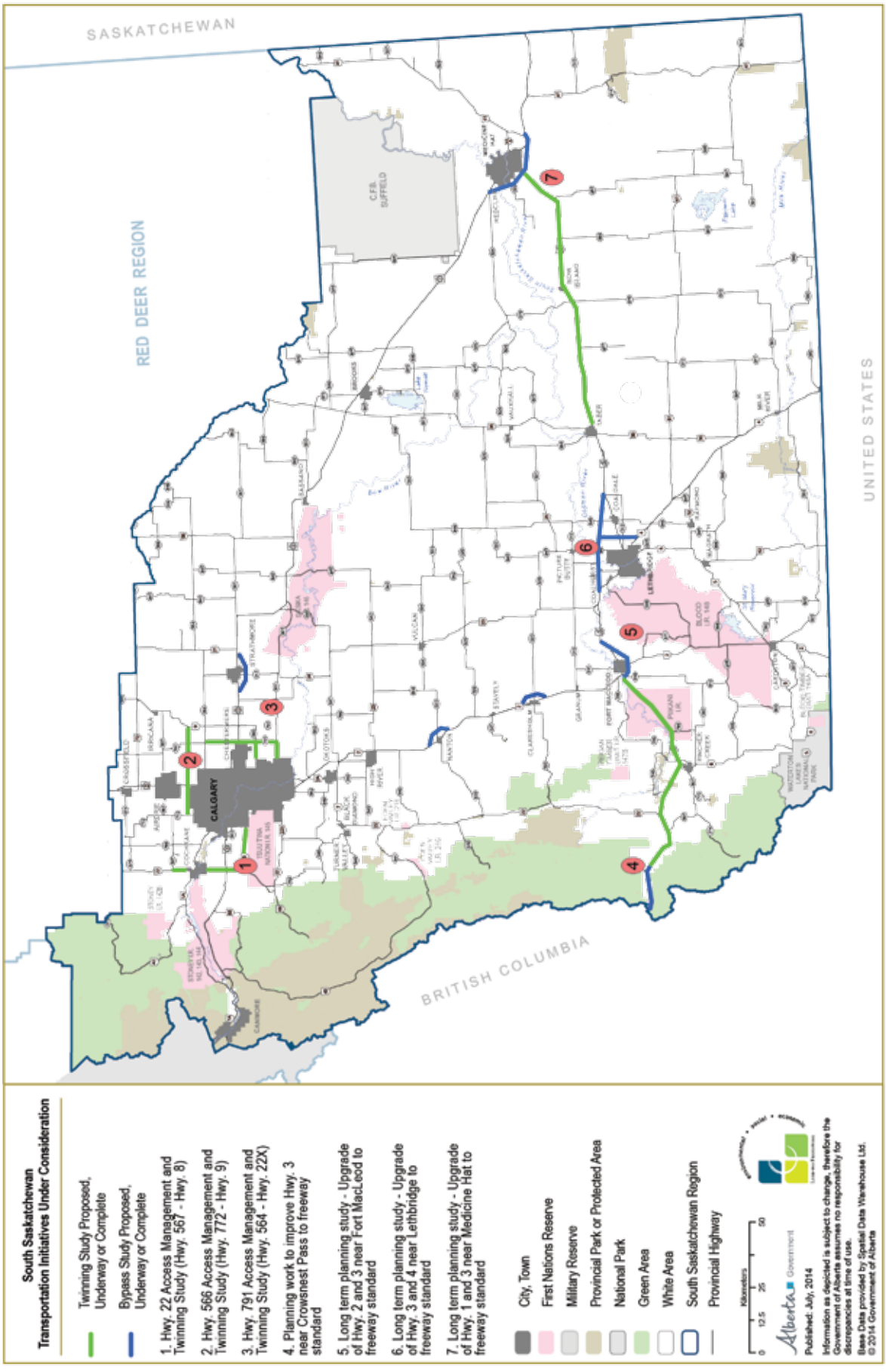
Wetlands

Wetlands are land saturated with water long enough to promote formation of water altered soils, growth of water tolerant vegetation and various kinds of biological activity that are adapted to the wet environment. Wetlands are highly diverse, productive ecosystems that provide a host of ecological services and form an integral component of Alberta's diverse landscapes. They play an important role in sustaining healthy watersheds by protecting water quality, providing water storage and infiltration, providing habitat for wildlife, fish and plants and sustaining biodiversity. Alberta is home to a rich and varied array of wetland ecosystems, including bogs, fens, marshes, swamps and shallow open water wetlands.

White Area

The settled portion of the province.

Appendix A: Transportation Initiatives Under Consideration



Appendix B: Tourism Destination Areas

The region's unique blend of cultural and aboriginal heritage, attractive recreation and tourism features and abundance of provincially unique and awe-inspiring areas attract visitors and have national and international recognition. Work needs to occur with local communities to enhance and support current initiatives to offer a variety of quality, unique and appealing visitor experiences that contain a wide range of tourism opportunities in the form of accommodations, attractions, events, activities and amenities to build the tourism potential.

Kananaskis, Canadian Badlands and Southwest Alberta will be developed as tourism destination areas to:

- Diversify the regional and local economy;
- Increase tourism visitation, length of stay and visitor expenditures;
- Offer a full range of recreation and tourism, experiences, opportunities and activities;
- Provide an attractive tourism destination for local, provincial, national and international visitors; and
- Identify and promote nature-based tourism.

In developing the tourism destination areas, the Government of Alberta will work with First Nations to consider how their constitutionally protected rights to hunt, fish and trap for food can continue to occur within reasonable proximity of First Nations' main population centres.

Destination Management Planning

Destination management planning provides the tourism industry with the tools to produce sustainable and competitive tourism in a destination. It is organized around a destination's unique tourism assets and unique planning, development, marketing and management needs. It represents a more integrated approach to understanding destination needs and the delivery of services with specific planning goals to:

- Collate research and baseline data to document current tourism supply and demand;
- Investigate land-use planning and natural resource management requirements to:
  - Identify recreation and tourism features, settings and scenery on public lands;
  - Identify approaches to ensure tourism development is sustainable and meets any regional or area-specific environmental thresholds; and
- Gather information from local people, community leaders and industry stakeholders.

Existing and potential new tourism development nodes will be identified and confirmed in collaboration with all stakeholders and designate and market nodes as appropriate. Tourism development nodes already identified by planning currently occurring in these destinations will be carried forward into the planning process and will be encouraged as locations for private sector development and community investment.

Work will occur collaboratively with local aboriginal communities, the private sector and provincial and local governments, interested private landowners and stakeholders to enhance and expand the supply of tourism products, experiences and infrastructure – including attractions, activities, amenities, accommodations and access.

Destination Management Strategies

Destination management strategies provides the framework to guide tourism industry development in the region by coordinating stakeholders in a common direction to maximize the tourism potential of the destination so as to achieve a balance of economic, social and environmental outcomes. They focus regional development resources on growing and enhancing the supply of tourism products and services that develop the destinations. The strategies will, in collaboration with communities and stakeholders:

- Identify tourism business investment opportunities for the public, private and not-for-profit sectors;
- Identify the need for new innovative tourism product and infrastructure development across the region;
- Identify the region's significant attractions and experiences;
- Identify relevant research on tourism supply and demand and identify new trends in recreation and tourism activities;
- Identify current target markets and those identified for development to achieve the region's long-term potential; and
- Identify an agreed focus and mechanism for engagement with the tourism industry, infrastructure providers and private investors.

Destination management strategies will be developed for Kananaskis and Southwest Alberta that integrate planning, development, marketing and management and implement destination management plans for all three areas that provide direction for the sustainable development of tourism in the region in collaboration with all stakeholders for the identified destinations.

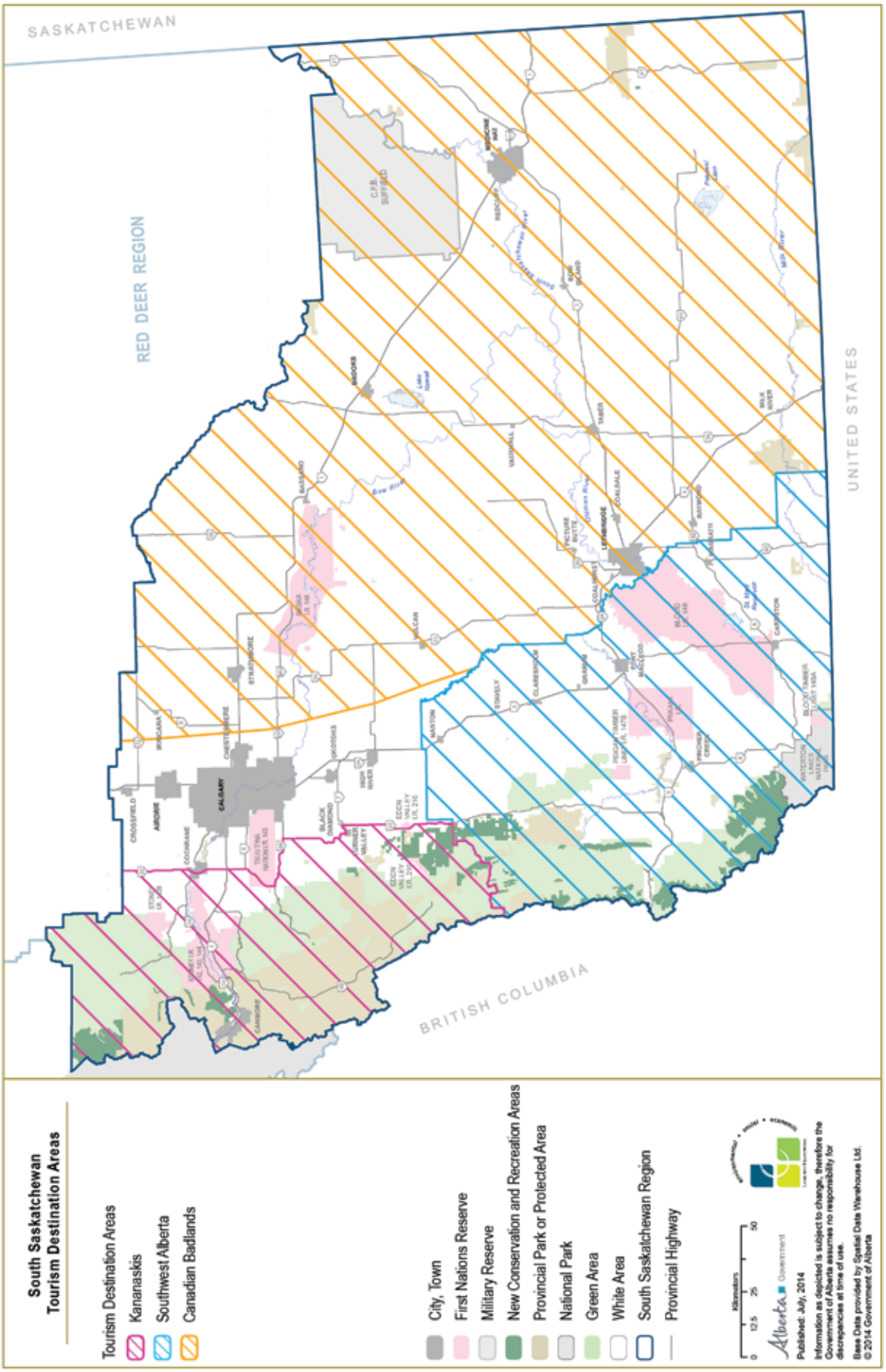
Destination Management Plans

Destination management plans are developed after a comprehensive process of research within the destination, consultation, feedback, planning and review where community-level participation from local tourism organizations, tourism boards, local government and operators is essential in their preparation. Their purpose is to grow destination appeal and provide direction for the sustainable development of tourism products and services in the three destinations over the next 10 years and in consideration of other economic and social interests and values in the area. The plans will, in collaboration with communities and stakeholders:

- Develop a vision for each of the destinations;
- Develop key enablers that will encourage tourism growth in the destinations and surrounding region;
- Prioritize product development and visitor experiences that address current expectations and future demand;
- Provide direction to enhance and sustain a quality land base to support tourism product development;
    - Tourism, Parks and Recreation will lead the process, inviting stakeholders to attend discussions and provide input into how they see these tourism destination areas develop.
- Prioritize and secure new tourism business investment opportunities;
- Position specific investment needs that support priority development of innovative tourism infrastructure projects;
- Facilitate collaboration among key tourism industry stakeholders (communities, investors, financiers and operators);
- Develop a destination brand and establish a marketing plan for each of the destinations; and
- Provide a detailed implementation action plan, funding priorities and funding strategies.

Destination management plans will be developed for all three areas that provide direction for the sustainable development of tourism in the region in collaboration with all stakeholders. All strategies and plans will be led by Tourism, Parks and Recreation, with engagement with other ministries, aboriginal communities, local governments, stakeholders, industry and the public.

Map 8: Tourism Destination Areas



Appendix C: Biodiversity Management Framework

The South Saskatchewan Region Biodiversity Management Framework is a new approach to support cumulative effects management of important elements of biodiversity that are affected by land-uses in the region. It is not intended to address all aspects of biodiversity. It will complement, not replace, existing programs, policies and initiatives related to managing biodiversity in the region. It will support coordination of the various approaches and tools in the region.

The framework will focus on key indicators that represent the broad range of biodiversity in the region. The indicators will reflect species, habitats and the landscapes that sustain long-term ecosystem health (e.g., headwaters areas and existing intact native grasslands). The biodiversity management framework will include the criteria for selecting the indicators.

Meeting the regional objectives for biodiversity will depend on using a range of management actions and approaches. The biodiversity management framework will describe actions that will be taken now. There will be some threshold values related to these management actions to provide clarity and help determine if biodiversity objectives are being met. Other threshold values will be identified related to species, habitats and landscapes to provide an early warning system that will enable further management responses when needed.

The South Saskatchewan Biodiversity Management Framework will provide guidance for decisions about future and existing land-use activities. The framework will also provide guidance for integrated management approaches on public lands. While the objectives set in the framework will apply to the entire region (including private lands) it is recognized that any actions by landowners towards meeting objectives is voluntary and subject to availability and landowner interest to use tools such as conservation easements and other mechanisms.

Monitoring of the biodiversity indicators will occur through the Alberta Monitoring, Evaluation and Reporting Agency, the Alberta Biodiversity Monitoring Institute and other finer scale monitoring by the Government of Alberta and partners. By focusing on management actions for these indicators, it is expected that other indicators of biodiversity will benefit. Monitoring will be essential to validate this assumption.

Appendix D: Alberta's Natural Subregions

Parks are an important component of the retention of native landscapes, natural habitats, biodiversity, conservation of riparian lands and for watershed management and headwaters protections. In Alberta, the Natural Regions Landscape Classification Framework has been adopted and helps determine where gaps in the protected areas network exist.

Additionally, inclusion of rare, unique or atypical elements of biological diversity identified outside this framework help to identify the best landscapes for conservation. Two Government of Alberta policies support this work: Alberta's Plan for Parks and the Land-use Framework.

Currently, there are significant representation gaps in three of the Natural Subregions within the Grassland Natural Region, as well as in the Foothills Parkland Subregion within the Parkland Natural Region that are achievable within the South Saskatchewan Region. In addition, gaps in the Foothills Parkland, Foothills Fescue and Mixedgrass Natural Subegions can only be met in the South Saskatchewan Region as they do not occur anywhere else in the province in any significant way. The establishment of the Pekisko Heritage Rangeland will double the legislative protection of the Foothills Parkland Subregion, completely filling gaps in representation for most of the natural landscape types in this subregion and doubling the average progress towards targets from 42 per cent to over 80 per cent.

Appendix E: Integrated Planning Approach for Subregional Planning and Issue-Specific Planning

Introduction

In the South Saskatchewan Region, achieving the objectives for biodiversity and healthy functioning ecosystems and ensuring there is a comprehensive and sustainable recreation system across the eastern slopes are key drivers for this planning.

Timing and Priorities for Planning

Timing for **recreation management planning** is shown in Figure A. While priorities are being set for various areas, all of the planning will need to come together as part of a recreation management system for the region. Currently, management of recreational activities in Public Land Use Zones in the Green Area is done through posted signs and notices and regulatory tools that are specific to each Public Land Use Zone. There are two existing access management plans in place that manage motorized recreational activities and numerous areas with designated trail systems as outlined in the Ghost-Waiparous Operational Access Management Plan (2005), and the Castle Special Management Area Access Management Plan for Motorized Recreational Access (1992), as well as the trail systems identified in the Kananaskis Country Public Land Use Zone and related Public Land Use Zone trail maps. While recreation management planning work is underway the current plans, mapping, signage and other tools will continue to be used to manage recreation and provide clarity about access to public land. The planning will build on the existing plans, existing mapping tools and information collected by stakeholders in each area. Clustering use; improving safety for diverse users; and repairing and reducing environmental damage are important considerations. For areas with existing access management plans and trail mapping, there will be ongoing work over time to update and ensure alignment with other planning as needed.

Linear footprint management planning will be completed for Green Area and White Area public land. Priority areas (see Figure A) have been identified based on the following criteria. As work continues to complete this planning for all of the public land in the region, the criteria will be considered to identify further priority areas:

- Areas of important ecosystem function such as key headwaters areas, high value wetlands and riparian lands;
- Areas of sensitive terrestrial and aquatic habitat such as habitat of species at risk and habitat identified in provincial species recovery plans;

- Areas with high biodiversity value such as areas important for connectivity and areas that are “intact” and would benefit from remaining in a less disturbed condition such as intact native grasslands;
- Areas of land cover that have declined in area substantially and are difficult to restore such as the Foothills Fescue Natural Subregion;
- Areas experiencing higher pressures from development and areas experiencing significant off-highway vehicle use; and
- Areas which have significant “legacy” land disturbance and areas with a high potential for restoration such as abandoned well-sites, decommissioned forestry roads and seismic areas no longer in use.

In the Pekisko area, a heritage rangeland and a Special Management Area on adjacent lands will be established. The Special Management Area will complement the heritage rangeland and will be linked to the existing Public Land Use Zones. This area is a priority for development of **a management plan for both the Pekisko Heritage Rangeland and the Pekisko Special Management Area**.

Existing **Integrated Resource Plans** will also be reviewed. The results of this work will be incorporated into, or be aligned with the subregional planning.

Governance

The Government of Alberta will provide leadership in the development of these plans. This includes coordinated involvement of other governments, aboriginal peoples, stakeholders, partners and the public. This collaboration will also require connecting to different planning initiatives within the government and with multi-stakeholder groups within the planning areas. It will be important to maintain and leverage these collaborative relationships and partnerships through implementation, monitoring and review to ensure success and alignment with regional outcomes and objectives.

The governance and process for planning will be coordinated where planning initiatives overlap and will include defining clear roles and responsibilities. It will build on and leverage work that has already been done by government, partners and other stakeholders, including the existing Integrated Resource Plans. Recognizing and incorporating existing planning and research by partners and stakeholders will increase efficiency and integration of the plans. As well, identifying interest and opportunities for involvement at different scales (issue-specific, subregional, regional) and in different ways will make the most effective use of participant’s time. For example, some may be most interested in the planning for trails in areas they use most, while others may be interested in the broader recreation system.

Recreation Management Planning
Can include: access management plans; trails plans and planning for staging areas and public land recreation areas. It may cover all or parts of the areas listed.

Figure A: Priority Planning Areas and Timing for Completion of Plans

Area	Completion Date (end of)
Recreation Management Planning	
Porcupine Hills	2015
Livingstone, Willow Creek, Allison/Chinook, McLean Creek and Sibbald	2016
Other areas and updates to existing plans (Including Castle and Ghost-Waiparous)	As soon as practicable
Linear Footprint Management Planning	
Porcupine Hills, Livingstone	2015
Other	2017
Management Plan	
Heritage Rangeland and Special Management Area	2015
Review of Integrated Resource Plans	
Existing plans: • Bow Corridor Local Integrated Resource Plan • Castle River Subregional Integrated Resource Plan • Crowsnest Corridor Local Integrated Resource Plan • Eden Valley Integrated Resource Plan • Ghost River Subregional Integrated Resource Plan • Kananaskis Country Subregional Integrated Resource Plan • Poll Haven Integrated Resource Plan • Livingstone Porcupine Hills Subregional Integrated Resource Plan • Eastern Irrigation District Integrated Resource Plan	2015

In the eastern slopes, there will be coordination of linear footprint management planning and recreation management planning, with combined governance and process, where they overlap such as in the Porcupine Hills and Livingstone areas. There will also be alignment with forest management planning, species recovery planning and other initiatives including those led by partners and stakeholders. This means that the participants who will be involved include: the grazing community, the Rocky Mountain Forest Range Association, Southern Foothills Study participants, municipalities and other land stewardship and conservation groups; Watershed Planning and Advisory Councils and other watershed stewardship groups; outdoor recreation groups representing different users such as off-highway vehicle, hiking, cycling and equestrian; the forestry sector including Spray Lakes Sawmills and other operators; and key energy companies.

For the Pekisko area there will be opportunities for stakeholders to be involved in the development of the management plan for the Pekisko Heritage Rangeland and Special Management Area. In addition the ministers responsible for the public lands and protected areas will work together using a cooperative management approach to involve the grazing community, industry and other local interests in the development of the management plan.

In the prairie grasslands, there will be coordination of subregional planning and consideration of other conservation offset pilots and species at risk conservation programs such as the Southeast Conservation Offset Pilot and MULTISAR (Multiple Species at Risk – a voluntary species at risk conservation program). The linear footprint management planning will include an approach to voluntary conservation offsets for native grasslands, where public land linear footprint could be voluntarily offset through agreements with landowners for conservation of intact grasslands on private land. The approach would build on principles established in *Manual 007: Principles for Minimizing Surface Disturbance in Native Prairie and Parkland Areas* of the Alberta Energy Regulator (formerly the Energy Resources Conservation Board). This means that the participants who will be involved include: the grazing community; the Prairie Conservation Forum; the Alberta Conservation Association and other land stewardship and conservation groups; Watershed Planning and Advisory Councils and other watershed stewardship groups; recreation groups representing different users; and key energy companies. In addition, as part of the management of heritage rangelands and natural areas, there will be a cooperative management approach similar to that described above for the Pekisko area.

Key Steps

In order to ensure the planning system is integrated, efficient and effective there will be coordination across key steps for planning. These key steps include: gathering and consolidating information and knowledge relevant to the subregional and issue-specific planning; assessment and analysis; development of options; decision-making; and implementation.

Effective monitoring and timely review must also be included, as well as comprehensive evaluation of all plans to ensure connection between plans and achievement of regional outcomes and objectives.

Inventory - ***Ensuring a foundation of information and knowledge***

For example:

- Identification of existing related and relevant plans including Integrated Resource Plans, recreation access management plans, species recovery plans such as Alberta's grizzly bear recovery plan and forest management plans, as well as initiatives led by partners such as Watershed Planning and Advisory Councils;
- Inventory of landscape, watershed and biodiversity information;
- Inventory of land disturbance and usage, such as:
  - current linear footprint categorized by type;
  - trails categorized by type and use and staging areas and campgrounds;
  - key areas of linear footprint for restoration;
  - viability of existing facilities and opportunities to enhance or reclaim; and
- Compilation of local knowledge.

Assessment and Analysis - ***Using a range of analytical tools and approaches***

For example:

- Modelling and development of scenarios;
- Analysis of existing land disturbance;
- Analysis related to the natural range of variability/natural disturbance regime;
- Analysis of recreation use, supply and demand and gaps for recreational opportunities; and
- Review of previous modeling and determination of further modelling needs.

Planning and Development of Options – ***Considering the range of differing needs, pressures and perspectives; involving a range of participants; considering a range of regulatory and non-regulatory tools and approaches***

For example, for recreation management:

- Use of principles and methodologies such as those in the "5 E's" for recreation management planning and development and as established by the National Off-Highway Vehicle Conservation Council;

- Identification of criteria and determination of appropriate trail placement, designation and development and appropriate development of staging areas and other facilities;
- Identification of restoration and reclamation needs for damaged areas;
- Consideration of options to use tools such as Public Land Use Zones; non-regulatory programs including education and awareness; and regulatory approaches with compliance and enforcement; and
- Exploration of formal partnerships for ongoing maintenance and monitoring.

For example, for linear footprint management:

- Identification of criteria for reduction of linear footprint with guidance from the South Saskatchewan Region Biodiversity Management Framework under development;
- Consideration of options to use non-regulatory programs including education and awareness; regulatory approaches such as standards and guidelines; other approaches such as offset programs; and
- Use of existing programs and guidelines such as the Integrated Land Management Tools Compendium and *Manual 007: Principles for Minimizing Surface Disturbance in Native Prairie and Parkland Areas*.

Implementation – *Ensuring delivery of commitments and actions using a collaborative approach with participants in the planning*

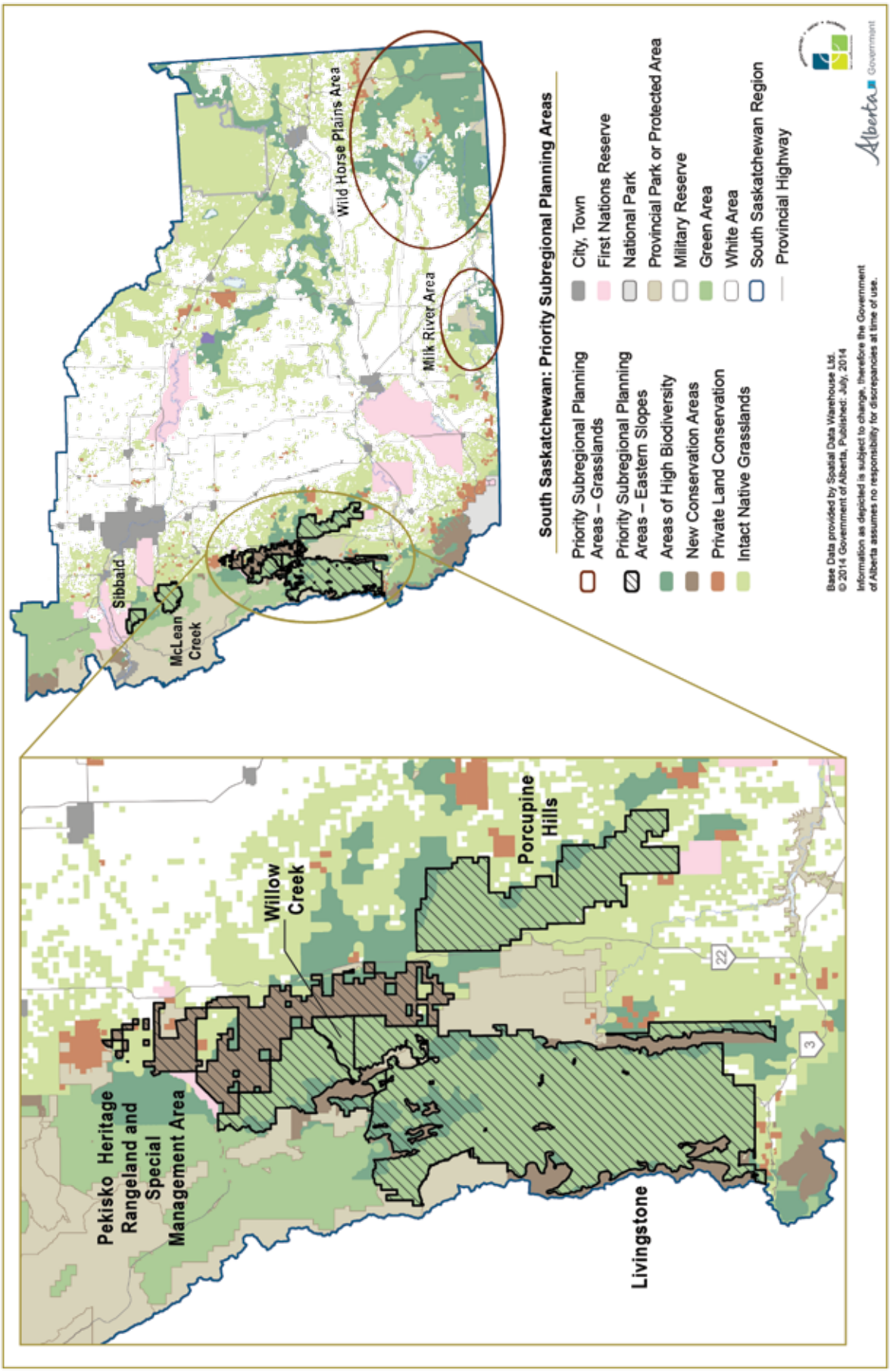
For example:

- Ensuring relevant requirements outlined in the plans are applied and necessary guidelines and standards are put into place;
- Ensuring non-regulatory programs are operating;
- Ongoing communication and awareness including provision of public materials such as trail maps and signage; and
- Using cooperative arrangements including agreements as appropriate.

Monitoring and Evaluation – *Evaluating the effectiveness of plans over time and allow for continuous improvement*

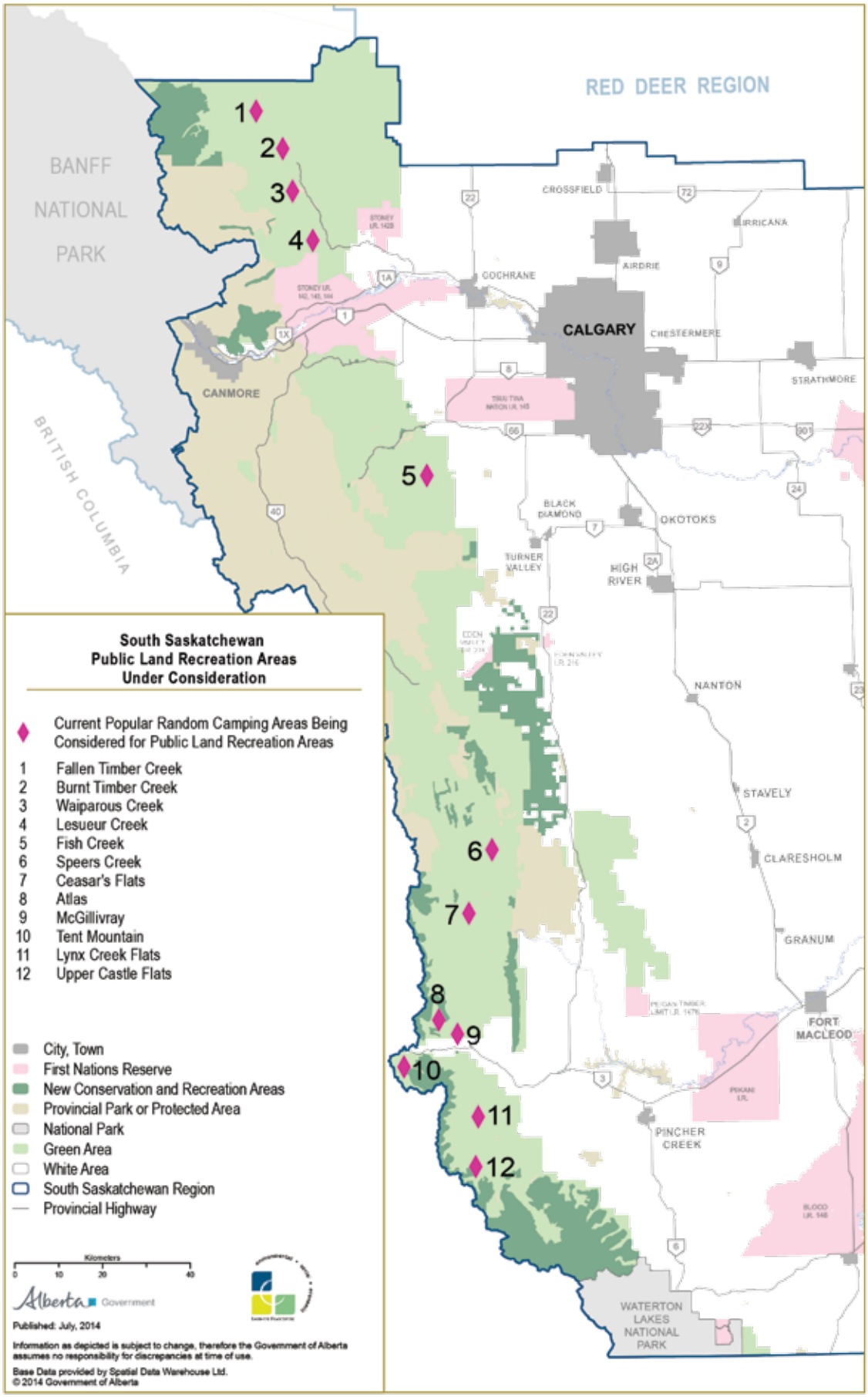
For example:

- Operating systems for monitoring, measuring and reporting; and
- Identifying opportunities for improvements.



Map 9: Priority Subregional Planning Areas

Map 10: Public Land Recreation Areas Under Consideration



Appendix F: Conservation Areas

Castle Area

With an approximate area of 170,000 hectares, the Castle area borders Waterton Lakes National Park and is located within the Crown of the Continent (the area of the Rocky Mountains where Alberta, British Columbia and Montana meet). This unique ecosystem is internationally recognized for its biodiversity and landscape form. Known for its scenic beauty and natural diversity, the Castle area includes mountains, foothills and prairie landscapes and is home to rare plant communities and wildlife. The headwaters of the Oldman River basin are located within the Castle area contributing one third of all water in the Oldman watershed and providing other benefits including natural mitigation of flooding and drought conditions.

With its numerous archeological, historical and First Nations traditional use sites, the Castle area also has cultural and historical significance for First Nations and all Albertans. These important cultural and historic values and diversity of environmental settings provide the Castle area with many opportunities for land and water based recreation. Hunting and fishing are popular pursuits in the area as well as camping, hiking, off-highway vehicle use, horseback riding and cross-country skiing.

In recognition of the importance of this area, a wildland provincial park will be established. It will include lands in the prime protection zone under the Eastern Slopes Policy (1984) and will also extend into adjacent lower valley areas as shown (see Map 11). This will protect the integrity of this significant area's headwaters, biodiversity and landscapes through the use of a designation under legislation. It also secures an important connection between the Alberta provincial parks system to the north, the British Columbia parks system to the west and Waterton-Glacier International Peace Park to the south.

The Castle Wildland Provincial Park will be managed to provide low-impact backcountry recreation opportunities and nature-based tourism products and services. Recreational leases will be considered based on the management intent of conservation areas and existing recreational leases will be honoured (see Appendix L – SSRP Land Uses).

Additionally the existing Castle Special Management Area that extends beyond the wildland provincial park remains in place. An access management plan for the Castle was developed and put in place in 1992. The purpose of the access management plan was to address and provide operational level direction for the recreational use of on and off-highway vehicles in the Castle River area. The Castle Special Management Area was established in 1998 in order to better manage motorized access and to protect ecologically sensitive backcountry areas from adverse effects. Permitted uses include off-highway vehicle and snow mobile use in certain locations and on designated trail systems. Random camping, hiking, horseback riding and cross-country skiing are also permitted uses in the area.

Pekisko Area

The Pekisko rangelands extend from the Highwood River to the Oldman River and include part of the Foothills Parkland Natural Sub-region. They are the largest contiguous block of native Foothills Parkland and Foothills Grassland in Canada. A new conservation area, the Pekisko Heritage Rangeland, will be established in the Pekisko area on public lands to preserve and protect a representative part of Alberta's native prairie, using carefully managed grazing and traditional ranching practices to maintain the health of the grassland ecosystem. It will provide opportunities to conserve important native grassland habitat and support maintenance of healthy ecosystems. Not only will the establishment of the Pekisko Heritage Rangeland double the legislative protection of the Foothills Parkland Subregion, it also responds to concerns about competing land-use impacts on important rangelands in the area and recognizes the significant land stewardship efforts of local stakeholders.

A Special Management Area will also be established on lands adjacent to the Pekisko Heritage Rangeland linking to the existing Public Land Use Zones. Existing activities will continue but the priority management intent for the Special Management Area will be to sustain foothills fescue grasslands. This area will be a priority for the development of a management plan for both the Pekisko Heritage Rangeland and the Special Management Area. Specific requirements will be established for the Special Management Area in accordance with that management plan.

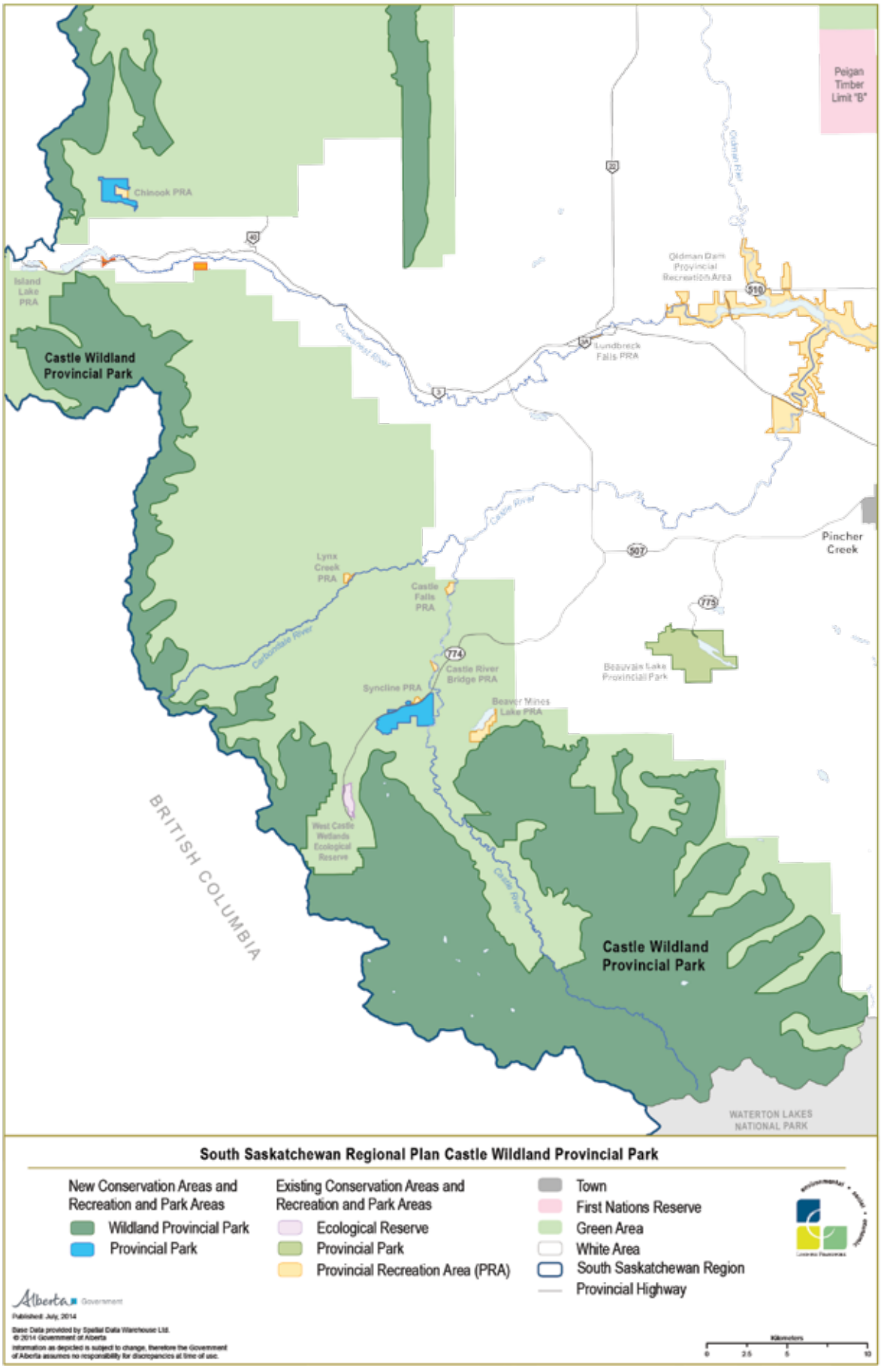
Don Getty Wildland Provincial Park Expansion

The Panther Corners Public Land Use Zone is adjacent to the Don Getty Wildland Provincial Park. There will be no changes to the boundaries of this Public Land Use Zone under this regional plan and any potential changes will be determined through the North Saskatchewan Region planning process. The South Saskatchewan Regional Plan will be updated as necessary. As a result, the northern boundary of the expansion of the Don Getty Wildland Provincial Park will follow the Dormer River.

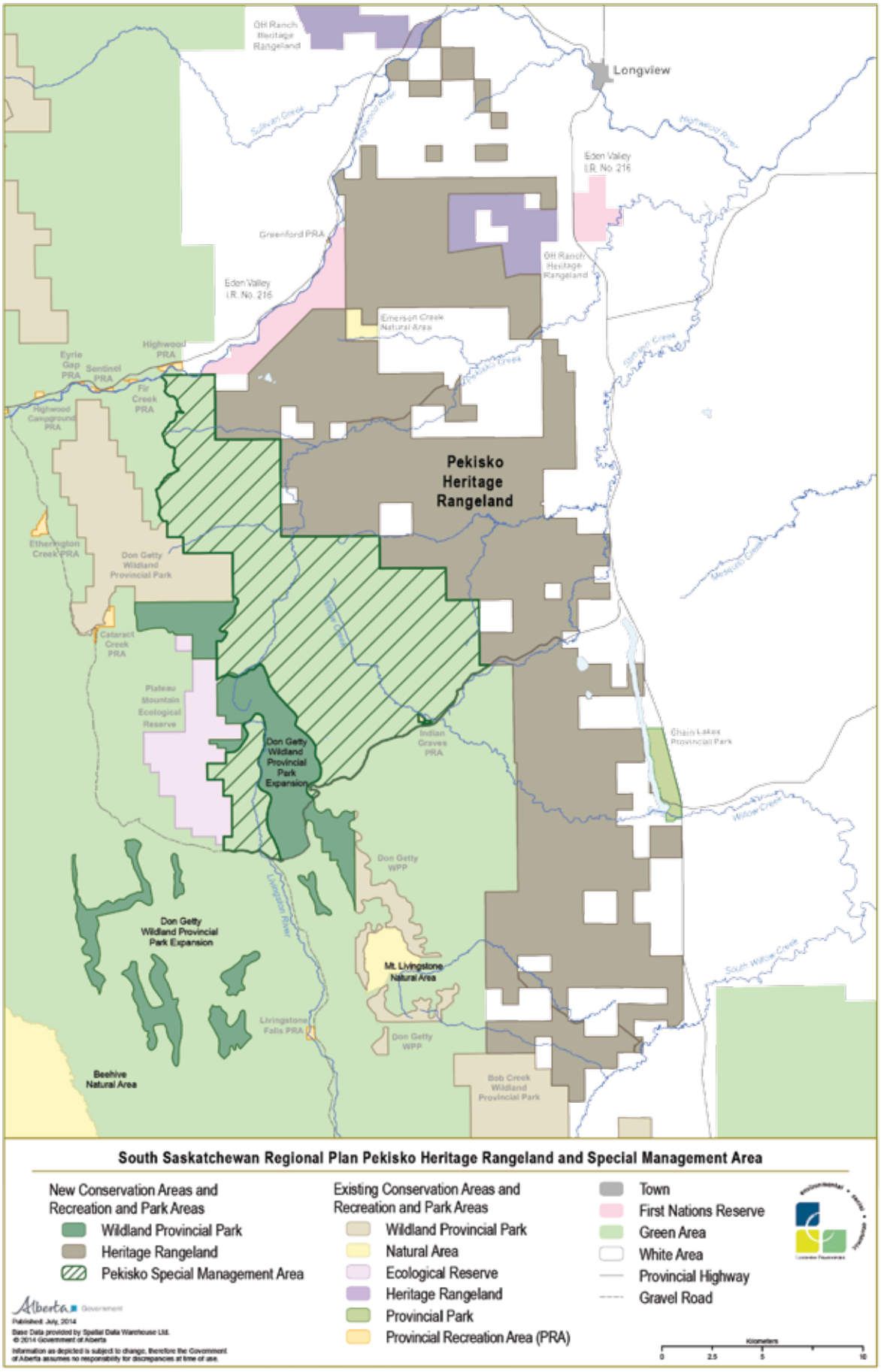
Bow Valley Wildland Provincial Park Expansion

A significant addition of 7,361 hectares is being made to the Bow Valley Wildland Provincial Park. An area adjacent to the Highway 1 corridor is not being included in the wildland provincial park but will be managed for multiple use with recognition of the importance of surface materials mining in the area. More detailed direction for management will be provided through the review and incorporation of the existing Integrated Resource Plans in the region. The review of the Bow Corridor Local Integrated Resource Plan and the Ghost River Subregional Integrated Resource Plan will be priorities in this review process, and there will be opportunities for collaboration and input from local government, industry, aboriginal peoples, and other stakeholders and the public.

Map 11: Castle Wildland Provincial Park



Map 12: Pekisko Heritage Rangeland and Special Management Area



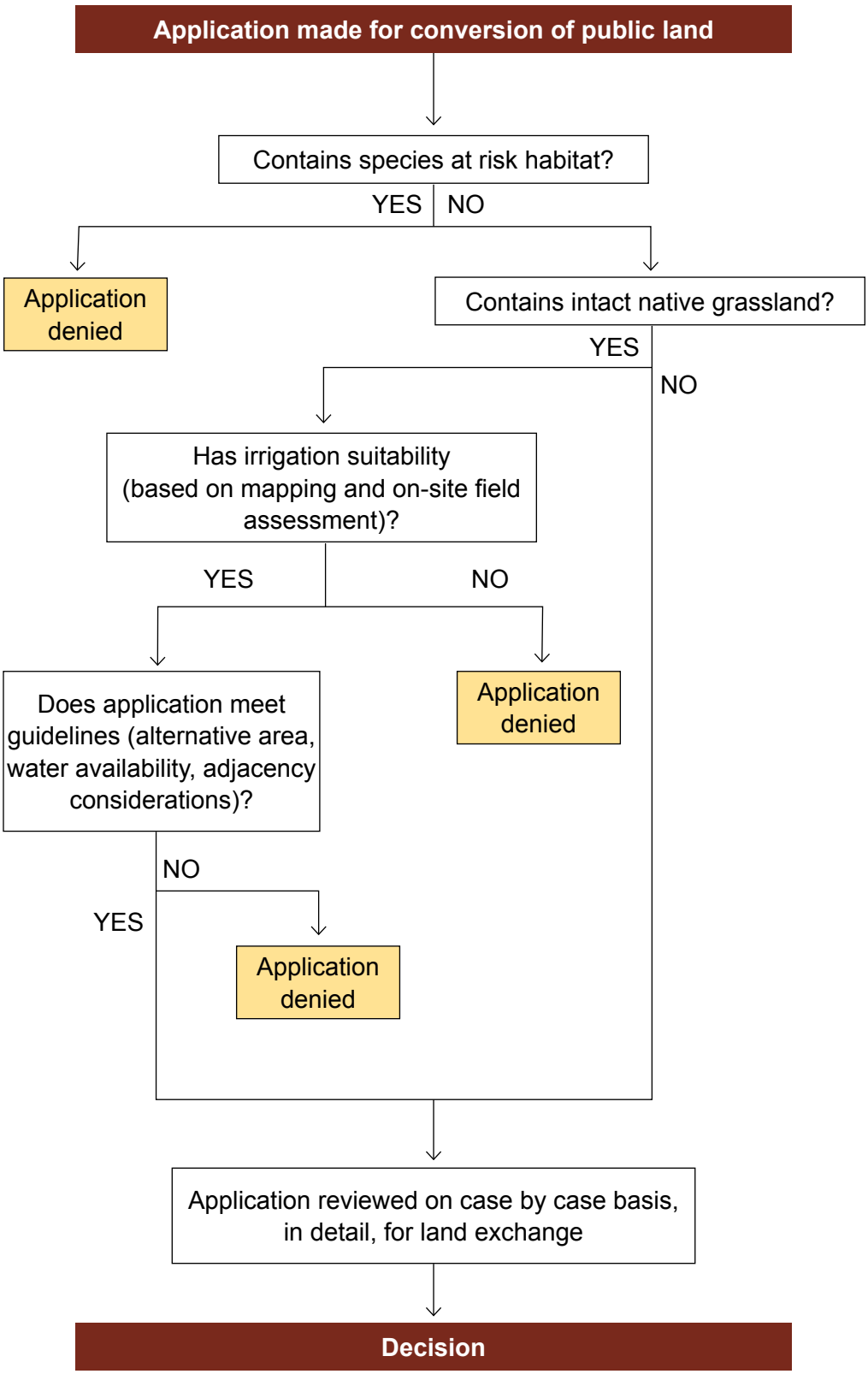
Appendix G: Grasslands

To minimize conversion of native grasslands on public land to other uses such as cultivation-based agriculture or facility developments, the review of land-use decisions on public lands will continue to be done through the existing government review process. Relevant legislation and policies will be followed. Additional guidance for decision-makers is provided in Strategy 3.7.

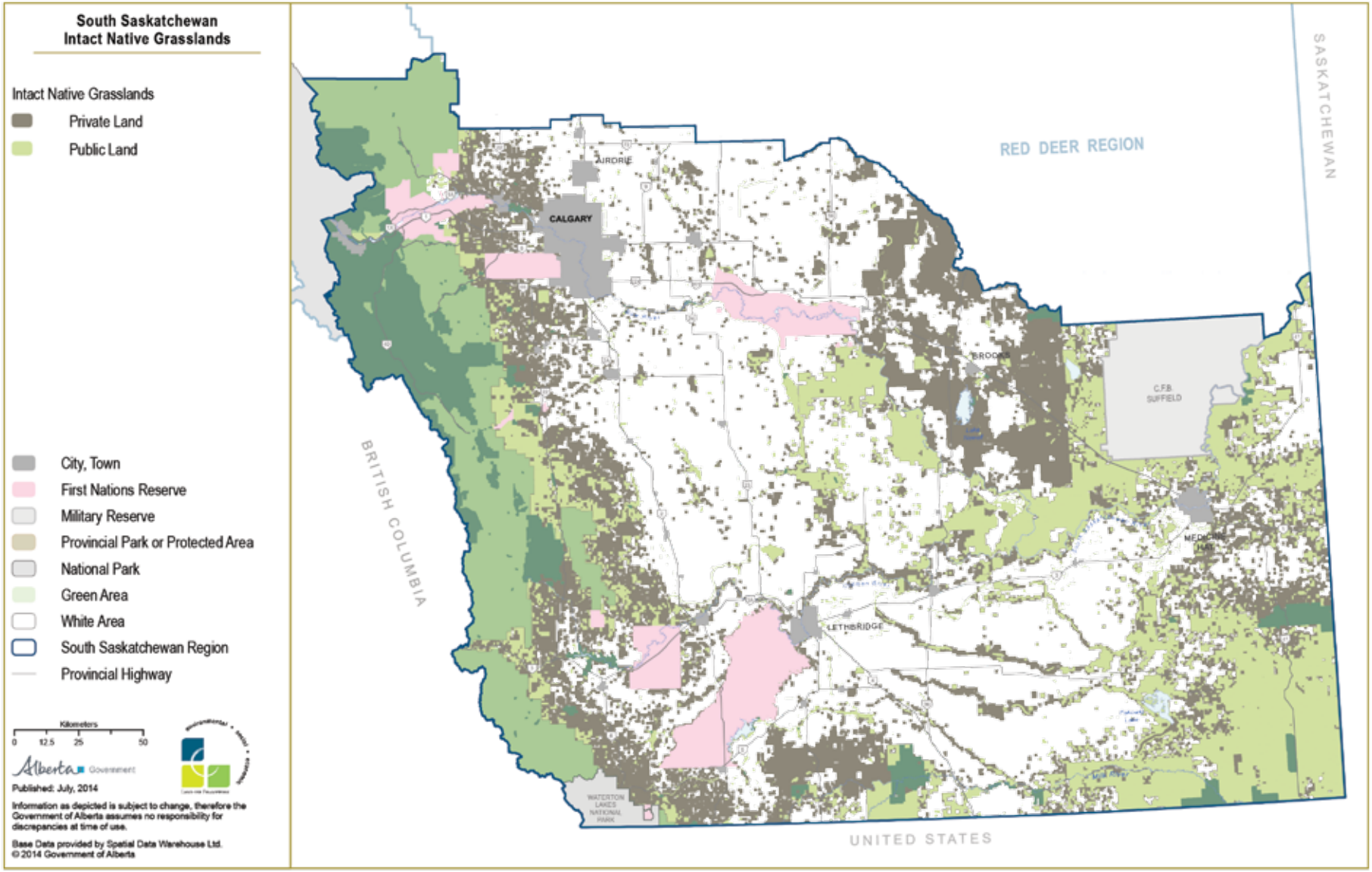
The following provides information to help explain the process and the considerations in the process:

- A Conversion of White Area Public Lands Native Grassland (page 145) Process Diagram;
- Descriptions of intact native grasslands and non-intact native grasslands and Map 13 (page 146);
- A description of irrigation suitability with Map 14 (page 147) showing irrigation suitability in areas of intact native grasslands; and
- Information on the Government of Alberta Land Exchange Program (page 148).

Conversion of White Area Public Lands Native Grasslands Process Diagram



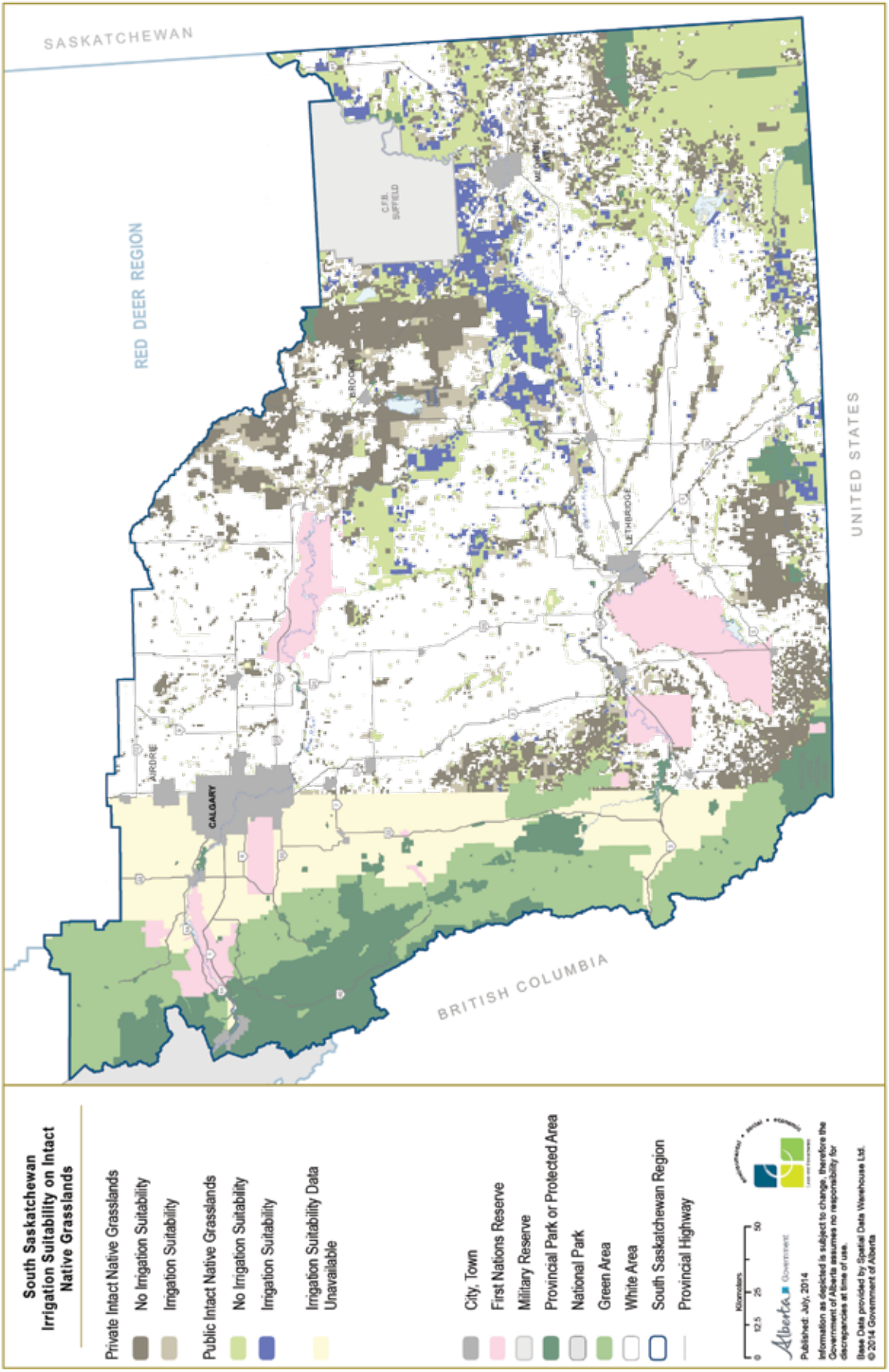
Map 13: Intact Native Grasslands



Intact native grasslands are tracts of grassland plant communities that have not been substantially altered by land-use practices. These are native plant communities that exhibit their normal ecological processes and functions (plant species diversity, nutrient cycling, soil and site stability, capture and beneficial release of water and productivity). Intact native grasslands also provide connectivity which is an important issue for the sustainability of biodiversity on the landscape. Connectivity is necessary in preventing habitat fragmentation and isolation of populations. Larger contiguous areas of native grasslands generally have more conservation value than smaller dispersed areas, although 'islands' do have a place in the network as stepping stones for certain species.

Non-intact native grassland on public land is defined as currently being cropped or invaded by aggressive agronomic species that have significantly altered the site characteristics, i.e. altered soils and plant communities.

Map 14: Irrigatioin Suitability on Intact Native Grasslands



The Land Exchange Program allows for the submission of applications to the Government of Alberta to exchange public land for private land that provides a higher net ecological benefit for Albertans. An example of this is if the private parcel improves habitat connectivity of a species at risk (e.g., burrowing owl) while the public land they wish to exchange has been altered from a native grassland state. Public consultation is a part of this process.

Irrigation Suitability Map

The South Saskatchewan Irrigation Suitability map identifies potentially irrigable and non-irrigable sections of land at a coarse planning scale. It does not take into account the availability of water for irrigation development, the presence of environmentally sensitive or protected areas, or the engineering required for potential development. With any irrigation development, regardless of the irrigation suitability identified by the map, a detailed irrigation land classification report is required. This is also a requirement for obtaining water rights within the irrigation districts or a water licence outside of the irrigation districts.

The land within the map area was broadly classified for its irrigation suitability, based mainly on soil (physical and chemical properties), topography and depth to bedrock. Lands assessed as suitable for irrigation should remain permanently productive considering existing soil properties and predicted behavior under irrigation.

Classification of irrigation suitability was based on the following information:

- Previously completed irrigation suitability classification reports and maps of various levels of detail (includes factors such as soils and topography);
- Soil survey reports and maps;
- Air photos, air photo mosaics and surficial geology reports. Information from these sources was interpreted for surficial features and was used in conjunction with other sources of information; and
- A set of standards (Alberta Standards for Irrigated Land Classification 1969) which divide the land into six classes based on soil characteristics, internal drainage and topography.

The Land Exchange Program

Land exchanges are authorized in legislation and subject to applicable regional plans. They enable the province to acquire lands if it is in the public's interest to do so. This means the land to be acquired must provide a "net benefit" meaning it either:

a) Has higher resource values, such as wildlife habitat, species at risk, watershed and historical, than the land to be relinquished; or

b) Consolidates public land which facilitates management for multiple use objectives (e.g., cultural resources and aesthetic values; enhancement of recreational opportunities and public access; consolidation of lands to improve development; and / or expansion of communities, etc.).

Demonstrating Net Benefit:

Typically, net benefit includes consistency with an applicable regional plan(s) and one or more of the following:

- Realization of higher natural resource values to promote conservation and sustainability of the ecosystem, such as:
  - Watershed
  - Biodiversity considerations for lands to be acquired:
    > Coarse-Filter Biodiversity - contributes to the maintenance of ecologically important habitat patches, landscape corridors, connectors and/or stepping-stones at a regional or subregional scale;
    > Fine-Filter Biodiversity - aligns with one or more of the following conservation initiatives: candidate conservation areas in draft regional plans; species at risk recovery plans; habitat for species of special concern; lands adjacent to existing conservation easements/projects; land identified in species management plans; or, lands identified in private land conservation assessments/ strategies;
    > Site Characteristics - the dominant character and general integrity of the site in terms of consisting of native plant communities;
    > Vulnerability - vulnerability rating based on the perceived potential for damage or loss from competing land use practices (e.g., loss to country residential development, cultivation or conversion to intensive industrial development); and
    > Irreplaceability - additional value will be placed in the rating system on native landscapes that are rare and limited in remaining extent.
- Consolidation of public land which facilitates efficient management for multiple use.
- Support for program objectives such as:
  - Cultural and historic resources and aesthetic values;
  - Enhancement of recreational opportunities and public access; and
  - Needs of communities – growth and development.

Appendix H:
Southeast Alberta Conservation Offset Pilot

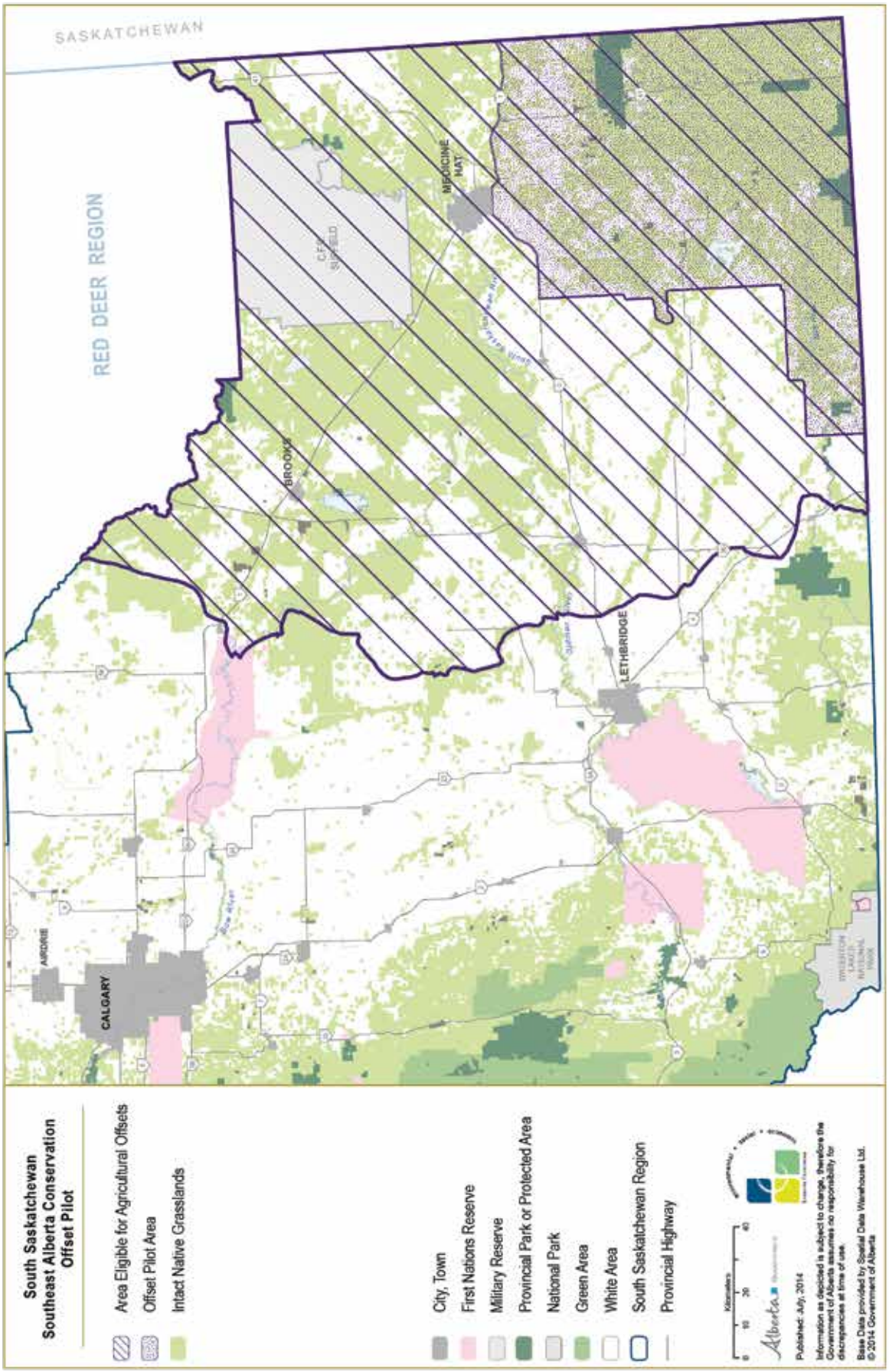
Conservation offsets are compensatory actions that address the unavoidable ecological losses arising from development. Conservation offsets in other jurisdictions have helped industry, landowners and government to reduce the impacts of land development, thus promoting biodiversity, species at risk habitat and healthy ecosystems. Current regulations encourage industrial developments to avoid highly sensitive areas and further minimize habitat impacts through beneficial management practices; however, there are unavoidable development impacts that can be addressed through offsets.

While offsets are not new to Alberta, the Southeast Alberta Conservation Offset Pilot is developing protocols that could be used to offset industrial impacts on native prairie through conversion of privately owned cultivated lands to native perennial species. This pilot is led by Alberta Agriculture and Rural Development and focuses on the following objectives:

- Developing an approach to quantify industry offset requirements;
- Developing an approach to target voluntary offsets on private agricultural land parcels with the best potential to improve landscape level native wildlife habitat;
- Determining agricultural landowner willingness to provide verifiable offsets through third party contracts, including costs and barriers to participation; and
- Determining the roles and costs for a qualified third-party to facilitate agricultural landowner project development and associated conservation offset obligations (including planning, validation, contracting and on-site monitoring).

This pilot will encourage voluntary participation by all industry players to offset new development impacts on native prairie landscapes within the Dry-Mixedgrass Natural Sub-region in the South Saskatchewan Region (see Map 15) (excluding parks and federal lands). Native prairie landscapes in this region are predominantly dry-mixedgrass prairie with inclusions of moist-mixedgrass prairie at higher elevations. The initial opportunity for voluntary agricultural offset will focus on conversion of privately owned cropland to a planned, native prairie species mixture for a minimum 10 year contract period. Following successful establishment, the offset site may be sustainably grazed. Offset selection will involve prioritization based on criteria related to native prairie habitat enhancement through an offset suitability index developed as part of the pilot.

Map 15: Southeast Alberta Conservation Offset Pilot



Appendix I: Efficient Use of Land Principles

Land is a limited, non-renewable resource and so it should not be wasted. This is the underlying premise of the efficient use of land (EUL) principles. There are many different ways to use land more efficiently. All require foresight, creativity and good planning. The EUL principles are intended to guide and support such planning.

The true test of whether or not efficient land use is being achieved, is the extent to which the footprint of human activities and the land taken up by the built environment is minimized over time. It is important to note that while striving to minimize the amount of land that is required for development of the built environment over time, we recognize that our cumulative footprint will continue to grow as our population increases and economic development continues into the future.

The following EUL principles, which are adopted by the Government of Alberta, are intended to guide and influence how we develop our built environment. While these principles are interrelated it is not expected that they all need to be equally pursued and applied in all situations. Land-use planners and decision makers will need to determine which principle, or group of principles, is relevant and appropriate to apply as part of the normal provincial and municipal planning processes.

Principle 1
Reduce the rate at which land is converted from an undeveloped state into permanent, built environment

As the population and the economy of Alberta grow, more land will be developed to accommodate the built environment. Efficient use of land is not about stopping this development. It is about using and developing less land to accommodate each new person or each new job than has been the case in the past. In other words, while the overall footprint of human development will grow over time, this principle seeks to reduce the rate at which land is converted from an undeveloped state into a permanently developed state.

Alberta municipalities have used several approaches to reduce the rate at which private land is developed, while still accommodating growth. For example, many municipalities have in place cluster zoning policies that require new development in rural areas to be clustered close together, rather than spread across the landscape. In other jurisdictions, planning tools such as urban growth boundaries and greenbelts have been used to control the outward growth of urban areas.

A number of integrated land management tools are designed to achieve similar results on public lands. One example is the use of disturbance standards, limits or thresholds in resource areas. Applications for development that would surpass these standards, limits or thresholds would trigger a management decision that could include anything from mandatory restrictive management to commitments to research and monitoring.

Principle 2
Utilize the minimum amount of land necessary for new development and build at a higher density than current practice

Efficient use of land is not intended to determine which land uses are most appropriate for a given area of land. The intent is to ensure that, once the desired land use is determined, it occurs in a manner that minimizes the amount of land that is needed.

One of the most common planning tools that Alberta municipalities use to achieve this outcome on private lands is the use of minimum density requirements in their municipal development plans, area structure plans and other planning documents. The density of development refers to the average number of buildings, people and/or jobs on a given area of land. Whether it is in urban, rural or industrial areas, concentrating development through higher density can reduce the amount of land required to accommodate growth.

On public lands, multi-pad directional drilling is an example of an approach to resource development that minimizes the surface footprint of development. Multi-pad directional drilling allows more wells to be grouped together on a single well pad. Multiple wells located on one pad fan out in several directions to access multiple subsurface reservoir locations, while reducing the development footprint on the surface.

Principle 3
Increase the proportion of new development that takes place within already developed or disturbed lands either through infill, redevelopment and/or shared use, relative to new development that takes place on previously undeveloped lands

Most cities, towns and rural communities have previously developed areas that are currently underutilized. This may include large, under-used parking lots around old commercial plazas, vacant buildings that have been closed-up, vacant lots along main streets or in downtowns, abandoned industrial areas and so on. Making more efficient use of sites like these through redevelopment reduces the need to utilize previously undeveloped land to accommodate growth. One example of a tool that municipalities have used to achieve this is the establishment of minimum intensification requirements, in which municipalities require a minimum proportion of future growth to be accommodated within existing urban areas and limit the proportion of growth that can take place on new greenfield lands.

Similarly, in areas used for resource development, existing roads and utility corridors could be shared among multiple industries and land users, thereby reducing the need to construct new corridors. Industrial access management plans are an example of a tool that is used in Alberta for identifying and implementing opportunities for shared use agreements.

Principle 4
Plan, design and locate new development in a manner that best utilizes existing infrastructure and minimizes the need for new or expanded infrastructure

The footprint associated with infrastructure development is extensive. Linear infrastructure such as roads, utility corridors and rail lines require large areas of land and they can also fragment the land base. The placement and development of this infrastructure needs to be done in a way that reduces the fragmentation of valued landscapes and also minimizes the overall built environment footprint. Non-linear infrastructure such as houses, schools, hospitals, waste management facilities and water and wastewater treatment plants also require large land areas. Where development occurs, what form it takes and how it is distributed across the landscape is a key determinant of how much infrastructure will be needed to service it and how much land will be required to accommodate that infrastructure.

One way that municipalities have used to locate development in a manner that utilizes existing infrastructure is to identify priority growth areas in their planning documents. These areas are usually on existing water and sewer lines and close to transit. By encouraging a greater proportion of development in these locations, the need for new infrastructure elsewhere can be reduced.

On public lands, Integrated Resource Plans (IRPs) can be a means of achieving the same outcomes. IRPs are Cabinet-approved policy documents that provide broad direction on land and resource management and use. They establish guidelines for allowable activities within specific areas and outline restrictions on surface access. Among the many aspects of IRPs can be the direction of resource activities to locations where more efficient land use can be achieved.

Principle 5
Reclaim and/or convert previously developed lands that are no longer required in a progressive and timely manner

Human land-use development, particularly related to resource use and extraction, is not always permanent. Many components of the built environment, even those in place for long periods, can be reclaimed or converted to other uses once they are no longer needed. Reclaiming lands to a predetermined state or converting previously developed infrastructure on private or public lands to other productive uses is one means by which the land base can be used more efficiently.

On private lands, the reclamation or conversion of previously developed lands to alternative productive uses often takes the form of redevelopment of brownfields sites, or the adaptive reuse of abandoned buildings. In both cases, lands that are no longer needed for their original use are brought back into productive use, thereby reducing development pressures on undeveloped lands.

On public lands, Alberta has a long experience applying progressive or accelerated reclamation to resource and industrial lands in order to bring them quickly back into productive use as soon as the original land use ends. Progressive reclamation consists of continuous reclamation and rehabilitation of industrial footprints as operations continue. Accelerated reclamation includes a range of techniques to re-establish natural communities faster during site reclamation.

Principle 6
Provide decision-makers, land-users and individuals the information they need to make decisions and choices that support efficient land use

To be successful, the EUL principles must become engrained in the thinking and dialogue of land-use planners, decision-makers and land users. A commitment to using land efficiently needs to become the "new normal" and the new way of doing things. All land-use planners, decision-makers and land users should understand the importance of using land efficiently and the mechanisms that are available to do so.

For development on private lands, municipalities can use checklists, scorecards and visualization tools to fully understand the implications of development alternatives from the perspective of efficient land use. With respect to development on public lands, considerable work has been done in Alberta to facilitate data sharing in order to inform better decision-making. Several databases and data repositories have been established that can be accessed by a wide range of land users and decision-makers.

Implementation Tools Compendium

A number of the EUL principles are already being explored and applied by planners and land-use decision-makers in Alberta.

A number of municipalities in Alberta have recognized the need to manage growth and the development footprint by incorporating policies and strategies aimed at utilizing land more efficiently into their municipal development plans, integrated community sustainability plans, municipal sustainability plans, transportation plans and environmental management plans.

The Government of Alberta has also been working with industry for several years to promote the reduction of the development footprint on public lands, including through Integrated Land Management (ILM).

To support the implementation of the EUL principles, the Government of Alberta released the Integrated Land Management Tools Compendium in 2012 which includes 27 examples of ILM tools and best practices for reducing the physical footprint of development on public lands.

The Efficient Use of Land Implementation Tools Compendium is under development which highlights 29 tools that can be applied to land-use decisions affecting private lands in Alberta. These range from cluster zoning, to transfer of development credits, to reducing land areas dedicated to parking, to alternative development standards.

The purpose of these two compendiums is to present and describe potential tools for implementing the EUL principles on both public and private lands, with examples of how each tool has been applied both within Alberta and in other jurisdictions. These tools are intended to demonstrate the wide range of possible options that could be used in Alberta, or that are already being used in Alberta, to help promote the efficient use of land. The compendiums are not intended to prescribe where or how these tools should be used. The best approach for achieving more efficient land use will need to be determined on the basis of local objectives, priorities and the many factors that affect land-use decisions.

Appendix J: Overview of the South Saskatchewan Regional Trail System Plan

Tourism, Parks and Recreation and Environment and Sustainable Resource Development will collaborate with and engage aboriginal communities, municipal governments, stakeholders and the public to plan and develop a regional trail system plan. The regional trail system plan will:

- Use the Alberta Recreation Corridor and Trails Classification System to identify and designate winter and summer motorized, non-motorized and mixed-use land- and water-based trails, routes and areas that link communities, neighbourhoods, destinations and other jurisdictions with the region's parks, outdoor spaces and recreation and tourism areas;
- Identify and designate sustainable, high-intensity motorized recreation areas;
- Identify other infrastructure and facilities necessary to support trails-based recreation; and
- Be planned, developed and managed in accordance with the standards and guides set out in the Provincial Trails System and other supporting documents.

The development of the regional trail system plan will include:

- The identification and analysis of recreation trail demands, supply and gaps;
- An inventory and assessment of the sustainability and quality of existing pathways, trails and user-created travel routes and areas;
- The gathering and analysis of environmental, resource, land use, heritage, aboriginal and other social data and land-use commitments;
- The development, assessment and discussion of options and scenarios for regional trail system design. This will include an assessment of the benefits and risks of these options and scenarios for other objectives in the SSRP, their consistency with other provisions in the SSRP and existing land-use commitments;
- In accordance with the Provincial Trails System, establish the class, desired experience and explicit management objective statement for each trail, route or area in the system;
- Trail, route and area development, maintenance and management priorities; information and education strategies and performance monitoring;
- Direction on enforcement, including plans for any modifications of, or enhancements to, the existing enforcement capability needed to achieve timely, fair and effective enforcement of restrictions on trail use, access and associated activities that support the objectives of the regional trail system; and
- The identification of industrial access, resource roads or developments that could contribute to or impact the regional trail system and where reclamation requirements may be deferred and/or amended to reflect their contribution to the regional trail system.

Appendix K:
Overview of Off-Highway Vehicle Use in SSRP

Green Area (vacant public land)	Generally, off-highway vehicle use is a permitted activity however crossing any naturally occurring body of water or naturally occurring watercourse can only occur at a bridge or designated crossing.
Public Land Use Zone	Off-highway vehicle use is not permitted except where specified by signs/ notices posted (i.e. designated trails). There may be restrictions around size/type of conveyance as well as timing of use. Generally, crossing naturally occurring bodies of water or naturally occurring watercourses can only occur at bridges or designated crossings (as above).
Conservation Areas and Provincial Parks and Recreation Areas	Where it is a permitted use, off-highway vehicle use will be managed to designated off-highway vehicle trails and areas. Off-highway vehicle use is permitted only on existing off-highway vehicle trails and areas where a management plan, trails plan, regulation, sign, notice, or trail marker designates such use. In new or expanded areas where off-highway vehicle use is permitted and designation of trails or areas has not yet occurred, use of existing off-highway vehicle trails and areas can continue in the interim until the earliest of: • a trail plan or management plan is developed which identifies where off-highway vehicle use will be permitted; or • off-highway vehicle use is otherwise restricted by regulation. No new trails or routes or access may be developed without a management plan, trail plan or regulation. Off-highway vehicle use shall not occur in the beds and shores of permanent water bodies. Off-highway vehicle use shall not occur on power line rights-of-way, utility corridors, or industrial facility areas (e.g., well-sites), unless specifically authorized to do so (see Appendix K – Overview of Off-Highway Vehicle Uses in SSRP). In areas designated as Heritage Rangelands, grazing lease holders are permitted to use off-highway vehicles in connection with the exercise of holders' rights under the grazing lease.

Outdoor Recreation on Public Land:

There are many outdoor recreational opportunities offered on Crown land including camping, hiking, hunting, sportfishing, motorized and non-motorized recreation. Albertans are encouraged to enjoy outdoor recreational activities on public land in a safe manner that respects the environment and other users. Maps and other information are available on the Alberta Environment and Sustainable Resource Development and the Provincial Parks websites. Additionally there are signs and outreach staff to provide further guidance.

Regulatory Details

Part 1 General

Definitions

1(1) Except as otherwise provided in the Regulatory Details, the words and phrases in the Regulatory Details have the meaning given to them in the Act.

(2) In this regional plan,

(a) "Act" means the *Alberta Land Stewardship Act*;

(b) "SSRP Map" means the South Saskatchewan Regional Plan Map, dated July 2014, prepared by the Government of Alberta in digital format, available to the public without charge on the Land Use Secretariat website (www.landuse.alberta.ca), showing the areas and boundaries of the conserved lands, new and expanded conservation areas, and new and expanded recreation and park areas for the purposes of Part 3, 4 and 6 of the Regulatory Details, and attached as Schedule C to the SSRP Implementation Plan;

(c) "SSRP Implementation Plan" means that portion of the regional plan identified by the subtitle "Implementation Plan" and includes the Tables, Maps, Appendices and Schedules;

(d) "SSRP Introduction" means that portion of the regional plan identified by the subtitle "Introduction";

(e) "SSRP Regulatory Details" are comprised of the following parts:

(i) "Part 1: General",

(ii) "Part 2: Air Quality",

(iii) "Part 3: Conservation Areas",

(iv) "Part 4: Conserved Land",

(v) "Part 5: Surface Water Quality",

(vi) "Part 6: Recreation and Parks Areas",

(vii) "Part 7: Monitoring and Reporting",

(f) "SSRP Strategic Plan" means that portion of this regional plan identified by the subtitle "Strategic Plan";

(g) "the planning region" means the South Saskatchewan Integrated Planning Region, established by Order in Council numbered O.C. 307/2011;

(h) "the Regulatory Details" means the SSRP Regulatory Details;

(i) "this regional plan" means the South Saskatchewan Regional Plan and includes the SSRP Introduction, the SSRP Strategic Plan, the SSRP Implementation Plan and the SSRP Regulatory Details;

Application of regional plan

2(1) This regional plan applies to

(a) the Crown,

(b) decision-makers,

(c) local government bodies, and

(d) subject to section 15.1 of the Act, all other persons.

(2) If, in the opinion of the Designated Minister under Part 2 or Part 5 of the Regulatory Details, an activity or proposed activity in respect of land in another planning region is contributing to the exceedance of a limit or trigger within the meaning of those Parts, the Designated Minister may, by order, declare that, in respect of the activity or proposed activity, the relevant Part or applicable provisions within a Part applies to one or more of the following entities outside the planning region:

(a) the Crown,

(b) decision-makers,

(c) local government bodies, and

(d) subject to section15.1 of the Act, all other persons.

(3) Whether or not a statutory consent has been issued for the activity or proposed activity, if the Designated Minister issues an order under subsection (2), the entity referred to in the order shall, in respect of the activity or proposed activity, comply with the provisions of the order until the earliest of

(a) the time specified in the order,

(b) the repeal of the order, or

(c) the coming into effect of a regional plan with respect to the activity, proposed activity or entity.

Non-binding parts of the regional plan

3 For further certainty, and subject to any other express provisions of the Regulatory Details, the provisions of the following portions of this regional plan are not binding:

(a) The SSRP Introduction,

(b) The SSRP Strategic Plan, and

(c) The SSRP Implementation Plan.

Functions and decisions based on regional plan

4(1) After the coming into effect of this regional plan, a local government body or decision-maker shall, upon carrying out any function in respect of the powers, duties and responsibilities of that local government body or decision-maker in the planning region, consider the SSRP Strategic Plan and the SSRP Implementation Plan.

(2) Not withstanding subsection (1), a local government body or decision-maker must not adjourn, defer, deny, refuse, or reject any application, proceeding or decision-making process before it by reason only of:

(a) the Crown's non-compliance with a provision of either the SSRP Strategic Plan or SSRP Implementation Plan, or

(b) the incompletion by the Crown or anybody of any direction or commitment made in a provision of either the SSRP Strategic Plan or SSRP Implementation Plan.

(3) A statutory consent issued after the coming into effect of this regional plan cannot be set aside or amended by reason only of a replacement or amendment to this regional plan unless the replacement or amendment complies with section 11 of the Act.

Delegated authorities

5 The Designated Minister responsible for any element or provision of the Regulatory Details may, by order:

(a) establish delegated authorities,

(b) delegate to one or more delegated authorities the performance of any of the Designated Minister's duties or functions or the exercise of any of the Designated Minister's powers under this Regulatory Details, and

(c) make any provision with respect to a delegation that is made under clause (b) with respect to Schedule10 to the *Government Organization Act*, or that may be made by regulations under section 2 of that Schedule.

Reporting requirements

6(1) The Designated Minister responsible for any part of the Regulatory Details shall report on the matters referred to in sections 12(b) and (c), 29, 33, 37(b) and (c), 56 and 59.

(a) not less than once within the first 4 years following the coming into force of the Regulatory Details, and

(b) not less than once within the next following 5 years after the expiry of the period referred to in clause (a).

(2) Any report referred to in subsection (1) must be in writing and be publicly available in its entirety in electronic and hard copy upon request by a person and posted on the Land Use Secretariat's website.

Compliance declaration

7(1) For the purposes of section 20(2) of the Act, a local government body must comply with that section by no later than September 1, 2019.

(2) For the purposes of section 21(2) of the Act, a decision-making body must comply with that section by no later than September 1, 2016.

Transitional provisions applicable to statutory consents

8(1) The Regulatory Details apply to an application for a statutory consent whether the application is made before or after the date the Regulatory Details comes into force.

(2) If at the time the Regulatory Details comes into force, a statutory consent has been issued and the Regulatory Details make the activity in respect of which the statutory consent was issued inconsistent with or non-compliant with the Regulatory Details, the statutory consent continues in effect despite the coming into force of the Regulatory Details.

(3) For greater clarification in respect of an inconsistent or non-compliant activity referred to in subsection (2), the person responsible for that activity is subject to lawful directions of an official under sections 14 and 39 within the meaning of those sections.

(4) Subject to subsection (5), where an application is to be determined after the coming into force of the Regulatory Details in respect of a statutory consent that a decision-maker reasonably believes is incidental to a statutory consent referred to in subsection (2), the decision-maker shall have due regard to the SSRP Implementation Plan, and the decision-maker shall render his or her decision in respect of the application despite the provisions of the SSRP Strategic Plan.

(5) For the purposes of subsection (4), a renewal of a statutory consent shall not be interpreted as being incidental to a statutory consent referred to in subsection (2).

Part 2: Air Quality

Designated Minister

9 For the purposes of this Part, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Environmental Protection and Enhancement Act* is the Designated Minister.

Definitions

10 In this Part,

(a) "framework" means the "South Saskatchewan Region Air Quality Management Framework (ESRD 2014)" as amended or replaced from time to time;

(b) "limit" means the applicable limit specified in Table A-1 or A-3 of Schedule "A";

(c) "official" means any person within the Designated Minister's department as duly authorized by the Designated Minister;

(d) "person responsible" has the same meaning as in the *Environmental Protection and Enhancement Act*;

(e) "trigger" means the applicable trigger specified in Table A-1, A-2 or A-3 of Schedule "A".

Designated Minister's determination final and binding

11(1) The Designated Minister in the exercise of the Designated Minister's powers and duties under this Part may determine

(a) the measurements of substances of concern at monitoring stations established and maintained under a program referred to in section 12,

(b) whether a trigger or limit has been exceeded for the purposes of this Part,

(c) whether a trigger or limit exceeded in one or more sub-areas in the planning region is of concern to other sub-areas or the planning region as a whole, and

(d) the duration of an exceedance of a trigger or limit as determined under clause (b).

(2) The Designated Minister's determination is final and binding on

(a) the Crown,

(b) decision-makers,

(c) local government bodies, and

(d) subject to section15.1 of the Act, all other persons.

Programs to manage effects

12 In respect of the framework, the Designated Minister shall establish and maintain programs

(a) managing ambient air quality triggers and limits for substances that in the opinion of the Designated Minister are indicators of the air quality effects of concern for the planning region, monitoring and evaluating the ambient air quality in the planning region, and

(b) evaluating the effectiveness of the framework in meeting the air quality objective stated in the SSRP Implementation Plan.

Notice respecting limits

13(1) In respect of one or more limits that, if, in the opinion of the Designated Minister, have been exceeded, the Designated Minister shall issue a notice specifying all of the following:

(a) the applicable limit or limits in respect of the activity or activities referred to in clause (b) that, in the opinion of the Designated Minister, have been exceeded;

(b) the activity or activities, or type or class of activities, that in the opinion of the Designated Minister are reasonably expected to have or have had, a direct or indirect, effect on the exceedance of the limit or limits;

(c) the area of the planning region affected by the exceedance of the limit or limits;

(d) the decision-maker or decision-makers affected by the notice;

(e) the local government body or local government bodies affected by the notice;

(f) the anticipated duration of the effect of the exceedance of the limit or limits on the activity or activities, type or class of activities, area, decision-makers, or local government bodies;

(g) the action to be taken by affected decision-makers and affected local government bodies in response to the exceedance of the limit;

(h) the direction that no statutory consent in respect of a proposed activity referred to in clause (b) shall be issued.

(2) Notwithstanding subsection (1), if in the opinion of the Designated Minister, a non-point source is reasonably expected to have, or have had a significant effect on the exceedance of a limit, the Designated Minister is not required to issue a notice pursuant to subsection (1).

(3) All affected decision-makers and local government bodies referred to in subsection (1)(d) and(e) shall be served with the notice by personal service, registered mail, or fax.

(4) Upon receiving a notice referred to in subsection (1), all affected decision-makers and local government bodies shall comply with the notice.

(5) A notice referred to in subsection (1) shall be publicly available.

Management response

14(1) If the Designated Minister determines that a trigger or limit has been exceeded, an official shall initiate a management response consistent with the framework.

(2) The Designated Minister may specify actions to be taken by affected decision-makers in respect of a management response referred to in subsection (1).

(3) A person responsible shall comply with the lawful directions of an official in respect of a management response referred to in subsection (1).

(4) An official referred to in subsection (1), shall as soon as practicable report to the Designated Minister in writing the details and the effect of the management response.

(5) A report referred to in subsection (4) shall be publicly available.

Designated Minister's considerations

15 For greater clarification, in reaching an opinion under sections 13 and 14, the Designated Minister may consider such information as in the Designated Minister's opinion is material to any or all of the following:

(a) a particular activity or activities or type or class of activity or types or classes of activities that are being undertaken or that are reasonably expected to occur in the planning region;

(b) the relevant area or relevant part of the area in the planning region in which the activity is to occur;

(c) the relevant area or relevant part of the area in the planning region in which an effect or effects of the activity or activities are reasonably expected to occur;

(d) the reasonably expected, relevant period or duration of the effect or effects of the activity or activities;

(e) any other matter that in the Designated Minister's opinion is advisable under a program referred to in Section 12.

Part 3: Conservation Areas

Definitions

16 In this Part, "conservation area" means the lands identified as conservation areas and labeled "A" through "H" on the SSRP Map.

Designated Minister in respect of conservation areas – Wildland Provincial Parks

17 For the purposes of this Part in respect of conservation areas, marked as Areas "A" through "G" as shown on the SSRP Map, the Minister designated under section16 of the *Government Organization Act* as the Minister responsible for the *Provincial Parks Act* is the Designated Minister.

18(1) In respect of the lands shown on the SSRP Map as Map Areas:

(a) "A", known as Don Getty Wildland Provincial Park,

(b) "B", known as Bow Valley Wildland Provincial Park,

(c) "C", known as Bluerock Wildland Provincial Park,

(d) "D", known as High Rock Wildland Provincial Park,

(e) "E", known as Bob Creek Wildland Provincial Park,

(f) "F", known as Livingstone Range Wildland Provincial Park, and

(g) "G", known as Castle Wildland Provincial Park

subject to subsection (2), a decision-maker shall not, with respect to land that is included in any of the above wildland provincial parks, grant or renew:

(i) an approval under the *Coal Conservation Act*;

(ii) an approval under the *Oil and Gas Conservation Act*;

(iii) an approval under the *Oil Sands Conservation Act*;

(iv) a licence under the *Pipeline Act*;

(v) a disposition under the *Public Lands Act*;

(2) Notwithstanding subsection (1), a decision-maker may grant or renew

(a) a disposition for the purposes of working, extraction or removal of subsurface minerals from land that is included in the Map Areas listed in subsection (1), if

(i) there is an existing agreement under the *Mines and Minerals Act* or an existing disposition under the *Public Lands Act* that is valid and subsisting at the time the Regulatory Details comes into force, or

(ii) a petroleum and natural gas agreement under the *Mines and Minerals Act* is issued after the Regulatory Details comes into force and the disposition, approval or licence to be granted or renewed does not allow for surface access, or

(iii) if it is not an agreement or disposition referred to in subclause (i), but is, within the meaning of section 8(4), incidental to an agreement or disposition referred to in subclause (i).

(b) a disposition for the working, extraction or removal of surface materials if

(i) there is an existing disposition under the *Public Lands Act* that is valid and subsisting at the time the Regulatory Details comes into force, or

(ii) if it is not a disposition referred to in subclause (i), but is, within the meaning of section 8(4), incidental to a disposition referred to in subclause (i).

(c) a disposition referred to in subsection (1) if the disposition pertains to land that is designated as a Multi-Use Corridor.

(3) Subsection (1) does not apply with respect to any disposition providing the right to work, extract or remove freehold minerals from land included within the Map Areas described in section subsection (1).

19(1) The Minister responsible for the *Forests Act* shall not, with respect to land that is included in the wildland provincial parks described in section 18(1), grant or renew any authority to harvest timber.

(2) The Minister responsible for the *Forests Act* may grant or renew an authority to remove timber for the purposes of the management of wildfire, or the control of insects or disease.

20 The Minister responsible for the *Forest Reserves Act* may grant or renew a disposition allowing the grazing of livestock on land included in the Map Areas described in section 18(1).

21 Notwithstanding section 18(1), the Minister responsible for the *Public Lands Act* may grant or renew a disposition allowing for the grazing of livestock on land in the Map Areas in sections 18(1)(a) to (g).

22 No off-highway vehicle use is permitted within land included in the Map Areas listed in sections 18(1)(b) and (c).

Designated Minister in respect of conservation areas – Heritage Rangelands

23 For the purposes of this Part in respect of conservation area "H" as shown on the SSRP Map, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act* is the Designated Minister.

Pekisko Heritage Rangeland

24 (1) In respect of the land shown on the SSRP Map Area "H", subject to subsection (2), a decision-maker shall not, with respect to land that is included in Map Area "H", grant or renew any of the following statutory consents:

(a) an approval under the *Coal Conservation Act*;

(b) an approval under the *Oil and Gas Conservation Act*;

(c) an approval under the *Oil Sands Conservation Act*;

(d) a licence under the *Pipeline Act*;

(e) a disposition under the *Public Lands Act*;

(2) Notwithstanding subsection (1), a decision-maker may grant or renew

(a) an approval, licence or disposition referred to in subsections (1)(b), 1(d), or 1(e) for the purposes of working, extraction, removal or transport of subsurface minerals from land that is included within Map Area "H", if

(i) there is an existing agreement under the *Mines and Minerals Act*, an existing approval under the *Oil and Gas Conservation Act* or an existing disposition under the *Public Lands Act* that is valid and subsisting at the time the Regulatory Details comes into force, or

(ii) a petroleum and natural gas agreement under the *Mines and Minerals Act* is issued after the Regulatory Details comes into force and the disposition, approval or licence to be granted or renewed does not allow for surface access, or

(iii) if it is not an agreement, approval or disposition referred to in subclause (i), but is, within the meaning of section 8(4), incidental to an agreement, approval or disposition referred to in subclause (i).

(b) an approval, licence or disposition referred to in subsection (1)(e) for the working, extraction or removal of surface materials if

(i) there is an existing disposition under the *Public Lands Act* that is valid and subsisting at the time the Regulatory Details comes into force, or

(ii) if it is not or a disposition referred to in subclause (i), but is, within the meaning of section 8(4), incidental to a disposition referred to in subclause (i).

(c) an approval, licence or disposition referred to in subsection (1) if the approval, licence or disposition pertains to land that is designated as a Multi-Use Corridor.

(3) Subsection (1) does not apply with respect to any approval, licence or disposition providing the right to work, extract or remove freehold minerals from land included within Map Area "H".

25(1) The Minister responsible for the *Forests Act* shall not, with respect to land that is included within Map Area "H", grant or renew any authority to harvest timber.

(2) Notwithstanding subsection (1), the Minister responsible for the *Forests Act* may grant or renew an authority to remove timber for the purposes of the management of wildfire or the control of insects or disease.

26 The Minister responsible for the *Public Lands Act* may grant or renew a disposition allowing for the grazing of livestock on land included within Map Area "H".

27 No off-highway vehicle use is permitted within land included within Map Area "H" except by grazing disposition holders as necessary for the exercise of their rights under the grazing disposition.

Conservation Objectives

28 In respect of conservation areas, the Designated Minister may take whatever steps that in the opinion ofthe Designated Minister is desirable for achieving the relevant conservation objectives of the SSRP Strategic Plan and the SSRP Implementation Plan.

Programs to manage objectives

29 In respect of the land use in a conservation area, the Designated Minister shall establish and maintain programs evaluating the effectiveness of the conservation area in meeting the relevantconservation objectives in the SSRP Strategic Plan and the SSRP Implementation Plan

30 The Designated Minister shall consider Strategy 3.12 in Outcome #3 of the SSRP Implementation Plan in making management decisions in respect of conserved lands.

Part 4: Conserved Land

Designated Minister

31 For the purposes of this Part, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Surveys Act* is the Designated Minister.

Definitions

32 In this Part,

(a) "conservation purposes," in respect of land, means the purposes referred to in section 29(1) of the Act, but does not include the following agricultural purposes:

(i) cultivation;

(ii) clearing;

(iii) range improvements within the meaning of regulations and rules under the *Public Lands Act*.

(b) "conserved land" means land within this planning region designated as

(i) wildland provincial parks under the *Provincial Parks Act*;

(ii) wilderness areas, ecological reserves, natural areas and heritage rangelands under the *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act*;

Conserved land

33 The Designated Minister shall establish and maintain programs

(a) monitoring the total combined area of conserved land in this planning region, and

(b) evaluating the ratio of conserved land referred to in clause (a) to the total area of land comprising this planning region.

Part 5: Surface Water Quality

Designated Minister

34 For the purposes of this Part, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Environmental Protection and Enhancement Act* is the Designated Minister.

Definitions

35 In this Part,

(a) "framework" means the "South Saskatchewan Region Surface Water Quality Management Framework" (ESRD 2014) as amended or replaced from time to time;

(b) "limit" means the applicable water quality limit specified in Tables B-1 to B-9 of Schedule "B";

(c) "official" means any person within the Designated Minister's department as duly authorized by the Designated Minister;

(d) "person responsible" has the same meaning as in the *Environmental Protection and Enhancement Act*;

(e) "trigger" means the applicable trigger specified in Tables B-1 to B-9 of Schedule "B";

(f) "water" has the same meaning as in the *Water Act*.

Designated Minister's determination final and binding

36(1) The Designated Minister in the exercise of the Designated Minister's powers and duties under this Part may determine

(a) measurements of substances of concern at monitoring stations established and maintained under a program referred to in section 37,

(b) whether a trigger or limit has been exceeded for the purposes of this Part,

(c) whether a trigger or limit exceeded in respect of one or more specific areas in the main stem of each of the Bow, Milk, Oldman and South Saskatchewan Rivers is of concern, or its tributaries or distributaries, or in other areas of the planning region, and

(d) the duration of an exceedance of a trigger or limit as determined under clause (b).

(2) The Designated Minister's determination is final and binding on

(a) the Crown,

(b) decision-makers,

(c) local government bodies, and

(d) subject to section 15.1 of the Act, all other persons.

Programs to manage effects

37 In respect of the framework, the Designated Minister shall establish and maintain programs

(a) managing water quality triggers and limits for substances that in the opinion of the Designated Minister are indicators of the surface water quality effects of concern for the main stem of each of the Bow, Milk, Oldman and South Saskatchewan Rivers;

(b) monitoring and evaluating the water quality in the main stem of each of Bow, Milk, Oldman and South Saskatchewan Rivers, and

(c) evaluating the effectiveness of the framework in meeting the water quality objective for the main stem of each of Bow, Milk, Oldman and South Saskatchewan Rivers as stated in the SSRP Implementation Plan.

Notice respecting limits

38(1) In respect of one or more limits that, if, in the opinion of the Designated Minister, have been exceeded, the Designated Minister shall issue a notice specifying all of the following:

(a) the applicable limit or limits in respect of the activity or activities referred to in clause (b) that, in the opinion of the Designated Minister, has been exceeded;

(b) the activity or activities or type, types, class or classes of activity or activities that in the opinion of the Designated Minister are reasonably expected to have, or have had, a direct or indirect effect on the exceedance of the limit or limits;

(c) the relevant area of the planning region affected by the exceedance of the limit or limits;

(d) the decision-maker or decision-makers affected by the notice;

(e) the local government body or local government bodies affected by the notice;

(f) the anticipated duration of the effect of the exceedance of the limit or limits on the activity, type, types, class or classes of activity or activities, area, decision-makers or local government bodies;

(g) the action to be taken by affected decision-makers and affected local government bodies in response to the exceedance of the limit;

(h) the direction that no statutory consent in respect of a proposed activity referred to in clause (b) shall be issued.

(2) Notwithstanding subsection (1), if in the opinion of the Designated Minister, a non-point source is reasonably expected to have, or have had, a significant effect on the exceedance of the limit or limits, the Designated Minister is not required to issue a notice pursuant to subsection (1).

(3) All affected decision-makers and affected local government bodies referred to in subsections (1)(d) and(e) shall be served with the notice by personal service, registered mail, or fax.

(4)Upon receiving a notice referred to in subsection (1), a decision-maker or local government body is bound by the notice.

(5) A notice referred to in subsection (1) shall be publicly available.

Management response

39(1) If the Designated Minister determines that a trigger or limit has been exceeded, an official shall initiate a management response consistent with the framework.

(2) The Designated Minister may specify actions to be taken by affected decision-makers in respect of a management response referred to in subsection (1).

(3) A person responsible shall comply with the lawful directions of an official in respect of a management response referred to in subsection (1).

(4) An official responsible for initiating a management response under this section shall as soon as practicable report to the Designated Minister in writing the details and the effect of the management response.

(5) A report referred to in subsection (4) shall be publicly available.

Designated Minister's considerations

40 For greater clarification, in reaching an opinion under sections 38 and 39, the Designated Minister may consider such information as in the Designated Minister's opinion is material to and or all of the following:

(a) a particular activity or activities or type or class of activity or types or classes of activities that are being undertaken or that are reasonably expected to occur in the planning region;

(b) the relevant area or relevant part of the area within the planning region in which the activity is to occur,

(c) the relevant area or relevant part of the area within the planning region in which an effect or effects of the activity or activities are reasonably expected to occur,

(d) the reasonably expected, relevant period or duration of the effect or effects of the activity or activities,

(e) any other matter that in the Designated Minister's opinion is advisable under a program referred to in section 37.

Part 6: Recreation and Parks Areas

Definitions

41 In this Part,

(a) "provincial parks" means lands identified as provincial parks as Map Areas "1"through"5"on the SSRP Map;

(b) "provincial recreation area" means lands identified as a provincial recreation area as Map Areas "6" through "8"on the SSRP Map;

(c) "water" means water as defined in the *Water Act*.

Designated Minister for provincial parks and provincial recreation areas

42 For the purposes of this Part in respect of provincial parks and provincial recreation areas, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Provincial Parks Act* is the Designated Minister.

Provincial Parks

43(1) In respect of the lands shown on the SSRP Map as Map Areas

(a) "1", known as Elbow Valley Provincial Park,

(b) "2", known as Sheep River Provincial Park,

(c) "3", known as Chinook Provincial Park,

(d) "4", known as Syncline Provincial Park, and

(e) "5", known as Cypress Hills Provincial Park

subject to subsection (2), a decision-maker shall not, with respect to land that is included in any of the above Map Areas, grant or renew any of the following statutory consents:

(i) an approval under the *Coal Conservation Act*;

(ii) an approval under the *Oil and Gas Conservation Act*;

(iii) an approval under the *Oilsands Conservation Act*;

(iv) licence under the *Pipelines Act*; or

(v) a disposition under the *Public Lands Act*.

(2) Notwithstanding subsection (1), a decision-maker may grant or renew

(a) a disposition for the purposes of working, extraction or removal of subsurface minerals from land that is included in the Map Areas in subsection (1), if

(i) there is an existing agreement under the *Mines and Minerals Act* or an existing disposition under the *Public Lands Act* that is valid and subsisting at the time the Regulatory Details comes into force, or

(ii) a petroleum and natural gas agreement under the *Mines and Minerals Act* is issued after the Regulatory Details comes into force and the disposition, approval or licence to be granted or renewed does not allow for surface access, or

(iii) if it is not an agreement or disposition referred to in subclause (i), but is, within the meaning of section 8(4), incidental to a disposition referred to in subclause (i).

(b) a disposition for the working, extraction or removal of surface materials if

(i) there is an existing disposition under the *Public Lands Act* that is valid and subsisting at the time the Regulatory Details comes into force, or

(ii) if it is not a disposition referred to in subclause (i), but is, within the meaning of section 8(4), incidental to a disposition referred to in subclause (i).

(c) a disposition referred to in subsection (1), if the disposition pertains to land that is designated as a Multi-Use Corridor.

(3) Subsection (1) does not apply with respect to any disposition providing the right to work, extract or remove freehold minerals from land included within the Map Areas in subsection (1).

44(1) The Minister responsible for the *Forests Act* shall not, with respect to land that is included within the Map Areas in section 43(1), grant or renew any authority to harvest timber.

(2) Notwithstanding subsection (1), the Minister responsible for the *Forests Act* may grant or renew an authority to remove timber for the purposes of the management of wildfire, insect and disease control.

45 The Minister responsible for the *Forest Reserves Act* may grant or renew a disposition allowing the grazing of livestock on land included within the Map Areas in sections 43(1)(a) to (d).

46 Notwithstanding section 43(1), the Minister responsible for the *Public Lands Act* may grant or renew a disposition allowing for the grazing of livestock on land within the Map Areas in section 43(1).

47(1) No off-highway vehicle use is permitted within land included within the Map Areas listed in sections 43(1)(a), (b), (c) and (e).

(2) No off-highway vehicle use is permitted within land included within the Map Area listed in sections 43(1)(d) except off-highway vehicle staging in designated areas only.

Provincial Recreation Areas

48(1) In respect of the lands shown on the SSRP Map as Map Areas

(a) "6", known as Sibbald Lake Provincial Recreation Area,

(b) "7", known as Crowsnest Lake Provincial Recreation Area, and

(c) "8", known as Coleman Provincial Recreation Area.

subject to subsection (2), a decision-maker shall not, with respect to land that is included in any of the Map Areas grant or renew any of the following statutory consents:

(i) an approval under the *Coal Conservation Act*;

(ii) an approval under the *Oil and Gas Conservation Act*;

(iii) an approval under the *Oilsands Conservation Act*;

(iv) licence under the *Pipelines Act*; or

(v) a disposition under the *Public Lands Act*.

(2) Notwithstanding subsection (1), a decision-maker may grant or renew

(a) a disposition for the purposes of working, extraction or removal of subsurface minerals from land that is included in the Map Areas in subsection (1), if

(i) there is an existing agreement under the *Mines and Minerals Act* or an existing disposition under the *Public Lands Act* that is valid and subsisting at the time the Regulatory Details comes into force, or

(ii) a petroleum and natural gas agreement under the *Mines and Minerals Act* is issued after the Regulatory Details comes into force and the disposition, approval or licence to be granted or renewed does not allow for surface access, or

(iii) if it is not an agreement or disposition referred to in subclause (i), but is, within the meaning of section 8(4), incidental to a disposition or an agreement referred to in subclause (i).

(b) a disposition for the working, extraction or removal of surface materials if

(i) there is an existing disposition under the *Public Lands Act* that is valid and subsisting at the time the Regulatory Details comes into force, or

(ii) if it is not a disposition referred to in subclause (i), but is, within the meaning of section 8(4), incidental to a disposition referred to in subclause (i).

(c) a disposition referred to in subsection (1), if the disposition pertains to land that is designated as a Multi-Use Corridor.

(3) Subsection (1) does not apply with respect to any disposition providing the right to work, extract or remove freehold minerals from land included within the Map Areas in subsection (1).

49(1) The Minister responsible for the *Forests Act* shall not, with respect to land that is included within the Map Areas in section 48(1), grant or renew any authority to harvest timber.

(2) Notwithstanding subsection (1), the Minister responsible for the *Forests Act* may grant an authority to remove timber for the purposes of the management of wildfire, insect and disease control.

50 The Minister responsible for the *Forest Reserves Act* may grant or renew a disposition allowing the grazing of livestock on land included within the Map Areas in section 48(1).

51 The Minister responsible for the *Public Lands Act* may grant or renew a disposition allowing for the grazing of livestock on land within the Map Areas in section 48(1).

52 No off-highway vehicle use is permitted within land included within the Map Area in section 48(1)(a).

Recreation and tourism objectives

53 In respect of provincial parks and provincial recreation areas, the Designated Minister may take whatever steps that in the opinion of the Designated Minister is desirable for achieving the relevant recreation and tourism objectives of the SSRP Strategic Plan and the SSRP Implementation Plan.

Programs to manage objectives

54 In respect of the land use in provincial parks or provincial recreation areas, the Designated Minister shall establish and maintain programs evaluating the effectiveness of the provincial parks or provincial recreation areas in meeting the relevant recreation and tourism objectives in the SSRP Strategic Plan and SSRP Implementation Plan.

55 The Designated Minister shall consider Strategy 6.14 in Outcome #6 of the SSRP Implementation Plan in making management decisions in respect of recreation and parks areas.

Access to water

56 Subject to any other law, where a decision-maker under the *Environmental Protection and Enhancement Act* or *Water Act* issues a statutory consent under either of those Acts respecting water in or adjacent to a provincial park or provincial recreation area identified and labelled "1" through "8" on the SSRP Map, the Designated Minister shall permit access to the water through the provincial park or provincial recreation area to the extent necessary for the holder to comply with the statutory consent.

Part 7: Monitoring and Reporting

Definitions

57 In this Part,

(a) "lead ministry" means the government department identified in the columns labeled "Lead Ministry" in Tables 1 and 2 of the SSRP Implementation Plan in respect of one or more supporting indicators, strategies and outcomes of this regional plan;

(b) "strategy" means the strategy identified in the columns labelled "Strategies" in Table 2 of the SSRP Implementation Plan;

(c) "regional outcome" means the outcome identified in the columns labeled "Provincial Outcomes" and "Regional Outcomes" in Tables 1 and 2 of the SSRP Implementation Plan;

(d) "supporting indicator" means the supporting indicator identified in the columns labeled "Supporting Indicators" in Table 1 of the SSRP Implementation Plan.

Designated Minister

58(1) For the purposes of this Part, the Minister responsible from time to time for a lead ministry identified for the purposes of a supporting indicator or strategy in the corresponding row in Tables 1 and 2 of the SSRP Implementation Plan is the Designated Minister.

(2) In the event a lead ministry is amalgamated with another lead ministry, is divided, or otherwise ceases to exist, the Stewardship Minister may, by order, designate Designated Minister for the purposes this Part in respect of one or more regional outcomes and strategies for the purposes of which the former lead ministry is identified in Tables1 and 2 of the SSRP Implementation Plan.

Programs to manage objectives

59 In respect of each supporting indicator and strategy for which the Designated Minister is responsible, as identified in Tables 1 and 2 of the SSRP Implementation Plan, the Designated Minister shall establish and maintain programs monitoring and evaluating

(a) the status of each supporting indicator, and

(b) the level of progress made towards implementing each strategy,

in achieving the regional outcome identified in the corresponding row in those Tables.

Coming into force

60 The SSRP Regulatory Details comes into force on September 1, 2014.

Schedule A: Air Quality Management Framework Limits and Triggers

Table A-1 Annual Ambient Air Quality Triggers and Limit for Nitrogen Dioxide

Description	NO_2
Level 4	
Limit	45 µg/m^3 (24 ppb)
Level 3	
Trigger for Level 3	30 µg/m^3 (16 ppb)
Level 2	
Trigger for Level 2	15 µg/m^3 (8 ppb)
Level 1	

Ambient air quality triggers and limits apply at continuous air monitoring stations, as reported through Alberta's Ambient Air Quality Data Warehouse. Limits are based upon Alberta Ambient Air Quality Objectives.

Table A-2: Interim Upper Range of the Hourly Data Ambient Air Quality Triggers for Nitrogen Dioxide

Description	NO_2
Level 4	
Trigger for Level 4*	196 µg/m^3 (104 ppb)
Level 3	
Trigger for Level 3	130 µg/m^3 (69 ppb)
Level 2	
Trigger for Level 2	66 µg/m^3 (35 ppb)
Level 1	

* This is an ambient trigger and not a limit.

The upper range of the hourly data is represented by the 99th percentile of the hourly data. Ambient air quality triggers apply at continuous air monitoring stations, as reported through Alberta's Ambient Air Quality Data Warehouse.

Table A-3: Action Levels, Triggers and Limits for Ozone and Fine Particulate Matter

Description	0_3(*)	$PM_{2.5}$ 24-hour (**)	$PM_{2.5}$ annual (***)
	Level 4[iv]		
Limit[i]	63 ppb	28 µg/m^3	10 µg/m^3
	Level 3[v]		
Trigger for Level 3[ii]	56 ppb	19 µg/m^3	6.4 µg/m^3
	Level 2[vi]		
Trigger for Level 2[iii]	50 ppb	10 µg/m^3	4.0 µg/m^3
	Level 1[vii]		

* 8-hour averaging time, achievement to be based on 4th highest annual measurement, averaged over three consecutive years

** 24-hour averaging time, achievement to be based on 98th percentile annual value, averaged over three consecutive years

*** Achievement to be based on the annual average value, averaged over three consecutive years

(i) CAAQS refers to this as Highest Threshold

(ii) CAAQS refers to this as Middle Threshold

(iii) CAAQS refers to this as Lowest Threshold

(iv) CAAQS refers to these as Actions for Achieving Air Zone CAAQS, or Red Management Level

(v) CAAQS refers to these as Actions for Preventing CAAQS exceedances, or Orange Management Level

(vi) CAAQS refers to these as Actions for Preventing AQ Deterioration, or Yellow Management Level

(vii) CAAQS refers to these as Actions for Keeping Clean Areas Clean, or Green Management Level

First reporting under the framework is anticipated be done in the year the regional plan comes into force. This will be aligned with monitoring and reporting of progress and activities under the national Air Quality Management System.

Schedule B:
Surface Water Quality Management Framework Limits and Triggers

Table B-1: Ambient Surface Water Quality Triggers and Limits for the Bow River at Cochrane.

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH_{3+4}-N) mg/L	0.025	0.041	0.025	0.025	varies with pH and temperature[a,c]
Chloride (Cl^-) mg/L	1.9	2.9	2.0	2.6	100[b,c]
Nitrate ($N0_3$-N) mg/L	0.074	0.108	0.109	0.130	3.0[a,c]
Total Nitrogen (TN) mg/L	0.18	0.40	0.17	0.23	-
Total Dissolved Phosphorus (TDP) mg/L	0.002	0.004	0.002	0.004	-
Total Phosphorus (TP) mg/L	0.005	0.009	0.003	0.006	-
Sulphate (SO_4^-) mg/L	33.6	40.4	42.2	45.8	varies with hardness[c]
Sodium Adsorption Ratio (SAR)	0.07	0.12	0.07	0.10	5[c,d]
Specific Conductivity µS/cm	289	317	330	349	1000[c,d]
Total Dissolved Solids mg/L	165	190	190	200	500[b,c]
Total Organic Carbon mg/L	1.0	1.6	0.8	0.9	-
Total Suspended Solids mg/L	2	8	1	2	-
Turbidity NTU	1.8	10.1	0.8	1.7	-
pH	8.23	8.38	8.17	8.30	<6.5 or >9.0[a,c]
Escherichia coli cfu per 100 mL	2	13	1	2	100[b,c]

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses – Irrigation Use

c Environmental Quality Guidelines for Alberta Surface Waters

d Alberta Agriculture and Rural Development 2002 fact sheet: "Salinity and Sodicity Guideline for Irrigation Water"- Note that the guideline is a combination of SAR and specific conductivity values.

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-2: Ambient Surface Water Quality Triggers and Limits for the Bow River at Carseland

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH_{3+4}-N) mg/L	0.045	0.160	0.250	0.472	varies with pH and temperature[a,c]
Chloride (Cl^-) mg/L	7.6	13.1	12.7	20.4	100[b,c]
Nitrate ($N0_3$-N) mg/L	0.601	0.990	1.130	1.403	3.0[a,c]
Total Nitrogen (TN) mg/L	1.02	1.72	1.68	2.17	-
Total Dissolved Phosphorus (TDP) mg/L	0.007	0.016	0.017	0.028	-
Total Phosphorus (TP) mg/L	0.021	0.083	0.030	0.062	-
Sulphate (SO_4^-) mg/L	42.9	51.5	53.9	58.0	varies with hardness[c]
Sodium Adsorption Ratio (SAR)	0.30	0.45	0.39	0.58	5[c,d]
Specific Conductivity µS/cm	346	398	422	443	1000[c,d]
Total Dissolved Solids mg/L	201	232	246	260	500[b,c]
Total Organic Carbon mg/L	2.0	3.6	1.5	1.9	-
Total Suspended Solids mg/L	6	64	5	14	-
Turbidity NTU	4.0	48.4	2.6	9.3	-
pH	8.20	8.39	8.06	8.20	<6.5 or >9.0[a,c]
Escherichia coli cfu per 100 mL	28	144	10	25	100[b,c]

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses – Irrigation Use

c Environmental Quality Guidelines for Alberta Surface Waters

d Alberta Agriculture and Rural Development 2002 fact sheet: "Salinity and Sodicity Guideline for Irrigation Water"- note that the guideline is a combination of SAR and specific conductivity values

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-3: Ambient Surface Water Quality Triggers and Limits for the Bow River at Cluny

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH_{3+4}-N) mg/L	0.025	0.120	0.195	0.372	varies with pH and temperature[a,c]
Chloride (Cl^-) mg/L	8.0	13.0	13.0	20.9	100[b,c]
Nitrate ($N0_3$-N) mg/L	0.520	0.837	1.195	1.455	3.0[a,c]
Total Nitrogen (TN) mg/L	0.94	1.52	1.68	2.07	-
Total Dissolved Phosphorus (TDP) mg/L	0.005	0.014	0.012	0.020	-
Total Phosphorus (TP) mg/L	0.017	0.128	0.017	0.025	-
Sulphate (SO_4^-) mg/L	47.9	58.1	57.2	63.1	varies with hardness[c]
Sodium Adsorption Ratio (SAR)	0.35	0.58	0.42	0.72	5[c,d]
Specific Conductivity µS/cm	360	425	441	490	1000[c,d]
Total Dissolved Solids mg/L	211	245	257	290	500[b,c]
Total Organic Carbon mg/L	2.2	4.3	1.3	1.8	-
Total Suspended Solids mg/L	11	80	4	9	-
Turbidity NTU	8.5	62.7	2.8	7.1	-
pH	8.30	8.46	8.00	8.23	<6.5 or >9.0[a,c]
Escherichia coli cfu per 100 mL	8	56	1	6	100[b,c]

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses – Irrigation Use

c Environmental Quality Guidelines for Alberta Surface Waters

d Alberta Agriculture and Rural Development 2002 fact sheet: "Salinity and Sodicity Guideline for Irrigation Water"- Note that the guideline is a combination of SAR and specific conductivity values

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-4: Ambient Surface Water Quality Triggers and Limits for the Bow River at Ronalane

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH_{3+4}-N) mg/L	0.025	0.081	0.130	0.292	varies with pH and temperature[a,c]
Chloride (Cl^-) mg/L	8.4	12.0	13.0	19.7	100[b,c]
Nitrate ($N0_3$-N) mg/L	0.302	0.747	1.190	1.440	3.0[a,c]
Total Nitrogen (TN) mg/L	0.68	1.26	1.58	1.91	-
Total Dissolved Phosphorus (TDP) mg/L	0.005	0.010	0.005	0.017	-
Total Phosphorus (TP) mg/L	0.025	0.138	0.012	0.027	-
Sulphate (SO_4^-) mg/L	62.2	78.2	60.9	70.5	varies with hardness[c]
Sodium Adsorption Ratio (SAR)	0.55	0.80	0.48	0.67	5[c,d]
Specific Conductivity µS/cm	386	431	448	499	1000[c,d]
Total Dissolved Solids mg/L	228	260	263	291	500[b,c]
Total Organic Carbon mg/L	3.0	4.8	1.5	2.5	-
Total Suspended Solids mg/L	12	72	6	18	-
Turbidity NTU	10.4	73.3	3.8	17.4	-
pH	8.32	8.58	8.06	8.30	<6.5 or >9.0[a,c]
Escherichia coli cfu per 100 mL	14	77	1	6	100[b,c]

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses – Irrigation Use

c Environmental Quality Guidelines for Alberta Surface Waters

d Alberta Agriculture and Rural Development 2002 fact sheet: "Salinity and Sodicity Guideline for Irrigation Water"- Note that the guideline is a combination of SAR and specific conductivity values

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-5: Ambient Surface Water Quality Triggers and Limits for the Milk River at Secondary Highway 880

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH_{3+4}-N) mg/L	0.025	0.070	0.040	0.130	varies with pH and temperature[a,c]
Chloride (Cl^-) mg/L	1.3	6.2	8.0	14.3	100[b,c]
Nitrate ($N0_3$-N) mg/L	0.031	0.123	0.382	0.807	3.0[a,c]
Total Nitrogen (TN) mg/L	0.32	0.59	0.82	1.22	-
Total Dissolved Phosphorus (TDP) mg/L	0.003	0.006	0.003	0.010	-
Total Phosphorus (TP) mg/L	0.079	0.193	0.007	0.039	-
Sulphate (SO_4^-) mg/L	22.3	170.0	197.0	316.0	varies with hardness[c]
Sodium Adsorption Ratio (SAR)	0.43	2.26	2.54	3.80	5[c,d]
Specific Conductivity µS/cm	248	733	916	1380	1000[c,d]
Total Dissolved Solids mg/L	140	488	606	900	500[b,c]
Total Organic Carbon mg/L	2.1	4.2	3.7	4.8	-
Total Suspended Solids mg/L	107	304	3	12	-
Turbidity NTU	60.0	170.0	3.7	17.5	-
pH	8.23	8.43	8.30	8.41	<6.5 or >9.0[a,c]
Escherichia coli cfu per 100 mL	57	230	1	9	100[b,c]

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses – Irrigation Use

c Environmental Quality Guidelines for Alberta Surface Waters

d Alberta Agriculture and Rural Development 2002 fact sheet: "Salinity and Sodicity Guideline for Irrigation Water"- Note that the guideline is a combination of SAR and specific conductivity values

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-6: Ambient Surface Water Quality Triggers and Limits for the Oldman River at Brocket

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH_{3+4}-N) mg/L	0.025	0.060	0.025	0.039	varies with pH and temperature[a,c]
Chloride (Cl^-) mg/L	0.9	1.8	1.2	1.9	100[b,c]
Nitrate ($N0_3$-N) mg/L	0.078	0.128	0.092	0.132	3.0[a,c]
Total Nitrogen (TN) mg/L	0.23	0.35	0.19	0.32	-
Total Dissolved Phosphorus (TDP) mg/L	0.003	0.006	0.003	0.005	-
Total Phosphorus (TP) mg/L	0.007	0.018	0.005	0.010	-
Sulphate (SO_4^-) mg/L	22.1	29.4	29.6	36.0	varies with hardness[c]
Sodium Adsorption Ratio (SAR)	0.16	0.22	0.18	0.20	5[c,d]
Specific Conductivity µS/cm	276	313	308	342	1000[c,d]
Total Dissolved Solids mg/L	156	181	179	202	500[b,c]
Total Organic Carbon mg/L	2.0	3.7	1.6	2.2	-
Total Suspended Solids mg/L	3	10	1	6	-
Turbidity NTU	4.5	18.8	2.3	8.5	-
pH	8.26	8.35	8.26	8.34	<6.5 or >9.0[a,c]
Escherichia coli cfu per 100 mL	3	14	2	27	100[b,c]

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses – Irrigation Use

c Environmental Quality Guidelines for Alberta Surface Waters

d Alberta Agriculture and Rural Development 2002 fact sheet: "Salinity and Sodicity Guideline for Irrigation Water"- Note that the guideline is a combination of SAR and specific conductivity values

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-7: Ambient Surface Water Quality Triggers and Limits for the Oldman River at Highway 3 in Lethbridge

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH_{3+4}-N) mg/L	0.025	0.070	0.025	0.059	varies with pH and temperature[a,c]
Chloride (Cl^-) mg/L	1.5	3.2	2.1	3.0	100[b,c]
Nitrate ($N0_3$-N) mg/L	0.023	0.138	0.219	0.348	3.0[a,c]
Total Nitrogen (TN) mg/L	0.25	0.64	0.40	0.59	-
Total Dissolved Phosphorus (TDP) mg/L	0.003	0.009	0.003	0.006	-
Total Phosphorus (TP) mg/L	0.012	0.151	0.008	0.022	-
Sulphate (SO_4^-) mg/L	35.8	52.1	45.0	58.0	varies with hardness[c]
Sodium Adsorption Ratio (SAR)	0.42	0.59	0.46	0.60	5[c,d]
Specific Conductivity µS/cm	323	397	358	437	1000[c,d]
Total Dissolved Solids mg/L	182	224	217	256	500[b,c]
Total Organic Carbon mg/L	2.4	3.9	1.7	2.5	-
Total Suspended Solids mg/L	9	189	7	34	-
Turbidity NTU	10.0	153.0	6.3	27.5	-
pH	8.34	8.57	8.20	8.28	<6.5 or >9.0[a,c]
Escherichia coli cfu per 100 mL	13	77	2	13	100[b,c]

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses – Irrigation Use

c Environmental Quality Guidelines for Alberta Surface Waters

d Alberta Agriculture and Rural Development 2002 fact sheet: "Salinity and Sodicity Guideline for Irrigation Water"- Note that the guideline is a combination of SAR and specific conductivity values

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-8: Ambient Surface Water Quality Triggers and Limits for the Oldman River at Highway 36

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH_{3+4}-N) mg/L	0.025	0.110	0.030	0.134	varies with pH and temperature[a,c]
Chloride (Cl^-) mg/L	4.0	6.1	6.0	8.1	100[b,c]
Nitrate ($N0_3$-N) mg/L	0.006	0.140	0.317	0.495	3.0[a,c]
Total Nitrogen (TN) mg/L	0.31	0.75	0.59	0.96	-
Total Dissolved Phosphorus (TDP) mg/L	0.003	0.010	0.003	0.007	-
Total Phosphorus (TP) mg/L	0.015	0.173	0.009	0.019	-
Sulphate (SO_4^-) mg/L	44.8	61.4	58.1	77.4	varies with hardness[c]
Sodium Adsorption Ratio (SAR)	0.56	0.78	0.65	0.80	5[c,d]
Specific Conductivity µS/cm	357	425	414	502	1000[c,d]
Total Dissolved Solids mg/L	200	243	246	296	500[b,c]
Total Organic Carbon mg/L	2.9	4.4	2.2	3.0	-
Total Suspended Solids mg/L	11	200	3	17	-
Turbidity NTU	9.9	180.0	4.9	19.9	-
pH	8.37	8.52	8.21	8.33	<6.5 or >9.0[a,c]
Escherichia coli cfu per 100 mL	14	151	3	17	100[b,c]

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses – Irrigation Use

c Environmental Quality Guidelines for Alberta Surface Waters

d Alberta Agriculture and Rural Development 2002 fact sheet: "Salinity and Sodicity Guideline for Irrigation Water"- Note that the guideline is a combination of SAR and specific conductivity values

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-9: Ambient Surface Water Quality Triggers and Limits for the South Saskatchewan River at Medicine Hat – Highway 1

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH_{3+4}-N) mg/L	0.025	0.060	0.090	0.253	varies with pH and temperature[a,c]
Chloride (Cl^-) mg/L	6.4	9.8	12.6	19.9	100[b,c]
Nitrate ($N0_3$-N) mg/L	0.103	0.497	1.015	1.258	3.0[a,c]
Total Nitrogen (TN) mg/L	0.55	1.01	1.33	1.72	-
Total Dissolved Phosphorus (TDP) mg/L	0.004	0.009	0.004	0.010	-
Total Phosphorus (TP) mg/L	0.023	0.098	0.011	0.042	-
Sulphate (SO_4^-) mg/L	56.5	76.9	62.4	77.6	varies with hardness[c]
Sodium Adsorption Ratio (SAR)	0.60	0.79	0.59	0.88	5[c,d]
Specific Conductivity µS/cm	369	436	462	519	1000[c,d]
Total Dissolved Solids mg/L	221	252	268	316	500[b,c]
Total Organic Carbon mg/L	2.7	4.0	1.7	3.0	-
Total Suspended Solids mg/L	19	105	5	32	-
Turbidity NTU	16.4	80.5	4.0	28.3	-
pH	8.32	8.47	8.14	8.27	<6.5 or >9.0[a,c]
Escherichia coli cfu per 100 mL	13	99	1	7	100[b,c]

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses – Irrigation Use

c Environmental Quality Guidelines for Alberta Surface Waters

d Alberta Agriculture and Rural Development 2002 fact sheet: "Salinity and Sodicity Guideline for Irrigation Water"- Note that the guideline is a combination of SAR and specific conductivity values

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Appendix L: SSRP Land Uses

Conservation Areas (Note F)

Area Name	Area Size (ha)	Legal Designation	Petroleum and Natural Gas Note 1, 2	Metallic and Industrial Minerals, Coal, and Other Crown Minerals Note 1, 2	Surface Materials Note 3	Commercial Forestry Note A	Grazing Note B	Off-Highway Vehicles Note C	Hunting, Trapping Note D	Fishing Note D	Linear Infra-structure Note 4	MUC Note E
Ghost River	15,317	Wilderness Area	X	X	X	X	X	X	X	X	X	X
Kennedy Coulee	1,068	Ecological Reserve	X	X	X	X	X	X	X	X	X	X
Plateau Mountain	2,323	Ecological Reserve	X	X	X	X	X	X	X	X	X	X
West Castle Wetlands	94	Ecological Reserve	X	X	X	X	X	X	X	X	X	X
Beehive	6,734	Wildland Provincial Park	X	X	X	X	√	X	√	√	X	√
Bluerock	12,720 +453	Wildland Provincial Park	X	X	X	X	√	X	√	√	X	√
Bob Creek	20,778 +360	Wildland Provincial Park	X	X	X	X	√	√	√	√	X	√
Bow Valley	37,370 +7,361	Wildland Provincial Park	X	X	X	X	√	X	√	√	X	√
Castle	54,588	Wildland Provincial Park	X	X	X	X	√	√	√	√	X	√
Don Getty	62,775 +26,261	Wildland Provincial Park	X	X	X	X	√	√	√	√	X	√
Elbow Sheep	79,998	Wildland Provincial Park	X	X	X	X	√	√ (snowmobile only)	√	√	X	√
High Rock	8,348	Wildland Provincial Park	X	X	X	X	√	√	√	√	X	√
Livingstone Range	4,498	Wildland Provincial Park	X	X	X	X	√	√	√	√	X	√
Mt. Livingstone	564	Wildland Provincial Park	X	X	X	X	√	X	√	√	X	√

Conservation Areas (Note F)

Area Name	Area Size (ha)	Legal Designation	Petroleum and Natural Gas Note 1, 2	Metallic and Industrial Minerals, Coal, and Other Crown Minerals Note 1, 2	Surface Materials Note 3	Commercial Forestry Note A	Grazing Note B	Off-Highway Vehicles Note C	Hunting, Trapping Note D	Fishing Note D	Linear Infra-structure Note 4	MUC Note E
Black Creek	7,733	Heritage Rangelands	X	X	X	X	√	√ (grazing lease holder use permitted)	√ (by leaseholder permission)	√	X	√
OH Ranch	4,277	Heritage Rangelands	X	X	X	X	√	X (grazing lease holder use permitted)	√ (by leaseholder permission)	√	X	√
Pekisko	34,356	Heritage Rangelands	X	X	X	X	√	X (grazing lease holder use permitted)	√ (by leaseholder permission)	√	X	√
Emerson Creek	194	Natural Area	X	X	X	X	√	X	√	√	X	√
Highwood River	10	Natural Area	X	X	X	X	√	X	√	√	X	√
Milk River	5,344	Natural Area	X	X	X	X	√	√	√	√	X	√
Ole Buck Mountain	357	Natural Area	X	X	X	X	√	X	√	√	X	√
Onefour Heritage Rangeland	11,165	Natural Area	X	X	X	X	√	√	√	√	X	√
Outpost Wetlands	72	Natural Area	X	X	X	X	√	X	√	√	X	√
Prairie Coulees	1,788	Natural Area	X	X	X	X	√	X	√	√	X	√
Red Rock Coulee	324	Natural Area	X	X	X	X	√	X	√	X	X	√
Ross Lake	1,943	Natural Area	X	X	X	X	√	√	√	√	X	√
Sheep Creek	5	Natural Area	X	X	X	X	√	√	√	√	X	√
Threepoint Creek	52	Natural Area	X	X	X	X	√	√	√	√	X	√
Twin River Heritage Rangeland	19,028	Natural Area	X	X	X	X	√	√	√	√	X	√
Wildcat Island	8	Natural Area	X	X	X	X	√	X	√	√	X	√

Recreation and Parks Areas (Note F)

Area Name	Area Size (ha)	Legal Designation	Petroleum and Natural Gas Note 1, 2	Metallic and Industrial Minerals, Coal, and Other Crown Minerals Note 1, 2	Surface Materials Note 3	Commercial Forestry Note A	Grazing Note B	Off-Highway Vehicles Note C	Hunting, Trapping Note D	Fishing Note D	Linear Infra-structure Note 4	MUC Note E
Beauvais Lake	1,161	Provincial Park	X	X	X	X	√	X	X	√	X	√
Big Hill Springs	32	Provincial Park	X	X	X	X	√	X	X	√	X	√
Bow Valley	3,129	Provincial Park	X	X	X	X	√	X	X	√	X	√
Brown-Lowery	278	Provincial Park	X	X	X	X	√	X	X	√	X	√
Canmore Nordic Centre	805	Provincial Park	X	X	X	X	√	X	X	√	X	√
Chain Lakes	409	Provincial Park	X	X	X	X	√	X	X	√	X	√
Chinook	45 +220	Provincial Park	X	X	X	X	√	X	X	√	X	√
Cypress Hills	20,450 +127	Provincial Park	X	X	X	X	√	X	X	√	X	√
Dinosaur	8,086	Provincial Park	X	X	X	X	√	X	X (Elk Management Hunt only)	√	X	√
Elbow Valley	1,129 +333	Provincial Park	X	X	X	X	√	X	X	√	X	√
Fish Creek	1,356	Provincial Park	X	X	X	X	X	X	X	√	X	√
Glenbow Ranch	1,334	Provincial Park	X	X	X	X	√	X	X	√	X	√
Kinbrook Island	540	Provincial Park	X	X	X	X	√	X	X	√	X	√
Little Bow	110	Provincial Park	X	X	X	X	√	X	X	√	X	√
Park Lake	224	Provincial Park	X	X	X	X	√	X	X	√	X	√
Peter Lougheed	50,142	Provincial Park	X	X	X	X	√	X	X	√	X	√
Police Outpost	223	Provincial Park	X	X	X	X	√	X	X	√	X	√
Sheep River	6,192 +267	Provincial Park	X	X	X	X	√	X	X	√	X	√

Recreation and Parks Areas (Note F)

Area Name	Area Size (ha)	Legal Designation	Petroleum and Natural Gas Note 1, 2	Metallic and Industrial Minerals, Coal, and Other Crown Minerals Note 1, 2	Surface Materials Note 3	Commercial Forestry Note A	Grazing Note B	Off-Highway Vehicles Note C	Hunting, Trapping Note D	Fishing Note D	Linear Infra-structure Note 4	MUC Note E
Spray Valley	27,472	Provincial Park	X	X	X	X	√	X	X	√	X	√
Syncline	15 +435	Provincial Park	X	X	X	X	√	√ (OHV staging)	X	√	X	√
Tillebrook	140	Provincial Park	X	X	X	X	√	X	X	√	X	√
Willow Creek	79	Provincial Park	X	X	X	X	√	X	X	√	X	√
Woolford	35	Provincial Park	X	X	X	X	√	X	X	√	X	√
Writing-on-Stone	2,689	Provincial Park	X	X	X	X	√	X	X	√	X	√
Wyndham-Carseland	178	Provincial Park	X	X	X	X	√	X	X	√	X	√
Beaver Mines Lake	113	Provincial Recreation Area	X	X	X	X	√	√ (OHV staging)	X	√	X	√
Bow Valley	4	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Bullshead Reservoir	4	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Burnt Timber	33	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Cartier Creek	44	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Castle Falls	30	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Castle River Bridge	15	Provincial Recreation Area	X	X	X	X	√	√ (OHV staging)	X	√	X	√
Cat Creek	10	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Cataract Creek	53	Provincial Recreation Area	X	X	X	X	√	√ (snowmobile staging)	X	√	X	√
Chin Coulee	1	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Coleman	32	Provincial Recreation Area	X	X	X	X	√	√	X	√	X	√

Recreation and Parks Areas (Note F)

Area Name	Area Size (ha)	Legal Designation	Petroleum and Natural Gas Note 1, 2	Metallic and Industrial Minerals, Coal, and Other Crown Minerals Note 1, 2	Surface Materials Note 3	Commercial Forestry Note A	Grazing Note B	Off-Highway Vehicles Note C	Hunting, Trapping Note D	Fishing Note D	Linear Infra-structure Note 4	MUC Note E
Crowsnest Lake	14	Provincial Recreation Area	X	X	X	X	√	√	X	√	X	√
Dawson	2	Provincial Recreation Area	X	X	X	X	√	√ (snowmobile staging)	X	√	X	√
Dutch Creek	16	Provincial Recreation Area	X	X	X	X	√	√ (OHV staging)	X	√	X	√
Etherington Creek	46	Provincial Recreation Area	X	X	X	X	√	√ (snowmobile staging)	X	√	X	√
Evan-Thomas	2,571	Provincial Recreation Area	X	X	X	X	√	X	√ (In WMU 408 Marmot Basin area)	√	X	√
Fallen Timber	3	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Fallen Timber South	50	Provincial Recreation Area	X	X	X	X	√	√	X	√	X	√
Fisher Creek	11	Provincial Recreation Area	X	X	X	X	√	√ (OHV staging)	X	√	X	√
Fitzsimmons Creek	2	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Ghost Airstrip	157	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Ghost Reservoir	24	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Greenford	2	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Heart Creek	10	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Highwood	31	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Highwood Junction	6	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Honeymoon Creek	7	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Indian Graves	15	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Ing's Mine	27	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√

Recreation and Parks Areas (Note F)

Area Name	Area Size (ha)	Legal Designation	Petroleum and Natural Gas Note 1, 2	Metallic and Industrial Minerals, Coal, and Other Crown Minerals Note 1, 2	Surface Materials Note 3	Commercial Forestry Note A	Grazing Note B	Off-Highway Vehicles Note C	Hunting, Trapping Note D	Fishing Note D	Linear Infra-structure Note 4	MUC Note E
Island Lake	3	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Jensen Reservoir	9	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Jumpingpound Creek	13	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Lake McGregor	140	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Lantern Creek	11	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Lineham	7	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Little Bow Reservoir	70	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Livingstone Falls	24	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Lundbreck Falls	9	Provincial Recreation Area	X	X	X	X	X	X	X	√	X	√
Lusk Creek	14	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Lynx Creek	26	Provincial Recreation Area	X	X	X	X	√	√ (OHV staging)	X	√	X	√
Maycroft	6	Provincial Recreation Area	X	X	X	X	X	X	X	√	X	√
McLean Creek	245	Provincial Recreation Area	X	X	X	X	√	√	X	√	X	√
Mesa Butte	10	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Michelle Reservoir	9	Provincial Recreation Area	X	X	X	X	X	X	X	√	X	√
Mist Creek	16	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Moose Mountain Trailhead	15	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
North Fork	17	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√

Recreation and Parks Areas (Note F)

Area Name	Area Size (ha)	Legal Designation	Petroleum and Natural Gas Note 1, 2	Metallic and Industrial Minerals, Coal, and Other Crown Minerals Note 1, 2	Surface Materials Note 3	Commercial Forestry Note A	Grazing Note B	Off-Highway Vehicles Note C	Hunting, Trapping Note D	Fishing Note D	Linear Infra-structure Note 4	MUC Note E
Old Baldy Pass Trail	28	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Oldman Dam	4,846	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Oldman River	2	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Oldman River North	39	Provincial Recreation Area	X	X	X	X	√	√ (OHV staging)	X	√	X	√
Payne Lake	37	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Picklejar	8	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Pine Grove	27	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Pinetop	5	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Racehorse	14	Provincial Recreation Area	X	X	X	X	X	√ (OHV staging)	X	√	X	√
Sentinel	15	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Sibbald Lake	73 +83	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Sibbald Meadows Pond	10	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Sibbald Viewpoint	16	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
South Ghost	7	Provincial Recreation Area	X	X	X	X	√	√ (OHV staging)	X	√	X	√
St. Mary Reservoir	173	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Stoney Creek	13	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Strawberry	46	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Trout Pond	2	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√

Recreation and Parks Areas (Note F)

Area Name	Area Size (ha)	Legal Designation	Petroleum and Natural Gas Note 1, 2	Metallic and Industrial Minerals, Coal, and Other Crown Minerals Note 1, 2	Surface Materials Note 3	Commercial Forestry Note A	Grazing Note B	Off-Highway Vehicles Note C	Hunting, Trapping Note D	Fishing Note D	Linear Infra-structure Note 4	MUC Note E
Waiparous Creek	103	Provincial Recreation Area	X	X	X	X	√	√	X	√	X	√
Waiparous Creek Group Camp	17	Provincial Recreation Area	X	X	X	X	√	√	X	√	X	√
Waiparous Valley Viewpoint	3	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Ware Creek	4	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Waterton Reservoir	22	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Wildhorse	16	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√
Wolf Creek	4	Provincial Recreation Area	X	X	X	X	√	X	X	√	X	√

Green Area - Public Lands								
Petroleum and Natural Gas	Metallic and Industrial Minerals, Coal, and Other Crown Minerals	Surface Materials	Commercial Forestry	Grazing	Off-Highway Vehicles	Fishing, Hunting, Trapping	Linear Infra-structure	MUC
√	√	√	√	√	√ For grazing lease permission of lease holder is required for recreational access Access will be managed pursuant to the Public Land Administration Regulation and its schedules	√	√	√

White Area - Public Lands								
Petroleum and Natural Gas	Metallic and Industrial Minerals, Coal, and Other Crown Minerals	Surface Materials	Commercial Forestry	Grazing	Off-Highway Vehicles	Fishing, Hunting, Trapping	Linear Infra-structure	MUC
√	√	√	√	√	√ For grazing lease permission of lease holder is required for recreational access Access will be managed pursuant to the Public Land Administration Regulation and its schedules	√	√	√

Private lands – Private landowners make decisions about how to use and manage their land consistent with existing provincial and municipal legislation – the South Saskatchewan Regional Plan does not change this or alter property rights.

Federally controlled lands - Approximately eight per cent of the region includes Canadian Forces Base Suffield, First Nations Reserves and National Parks.

General Note:

The Regulatory Details contain legally binding provisions regarding land use requirements for some areas in Appendix L – SSRP Land Uses. In the event of a conflict between Regulatory Details and Appendix L – SSRP Land Uses, the Regulatory Details shall prevail.

In the event of a conflict between Appendix L – SSRP Land Uses and the existing management plan or otherwise applicable regulations under other enactments for the area, the existing management plan or otherwise applicable regulations under other enactments for the area shall prevail.

For greater clarity, activities identified in Appendix L as permitted uses may require statutory consents in accordance with existing provincial laws governing such activities.

Exception Notes:

Note 1: Petroleum and Natural Gas

Existing petroleum and natural gas tenure will be honoured in conservation areas and recreation and parks areas, in accordance with existing policy.

This includes all subsurface and surface activities needed to explore for, develop and extract the resource defined in the existing agreement. Care must be taken when exploring, developing and extracting the resource in order to minimize impacts of activities on the natural landscape, historic resources, wildlife, fish and vegetation.

- This also includes renewing subsurface and surface dispositions, approvals and agreements for existing activities.
- Applications for new surface dispositions (e.g., a new disposition for a well, road, pipeline or facility, etc.) required to access an existing subsurface commitment would also be honoured as necessary extensions to an existing commitment, subject to review through the current application and approval process.
- Applications for seismic programs associated with existing subsurface commitments will be reviewed through the current application and approval process.
- Limitations: Existing surface or subsurface commitments related to petroleum and natural gas within a protected area cannot be used as a basis to access new subsurface rights within a protected area

  (e.g., whether to access new subsurface deeper rights, new lateral subsurface rights or additional new rights). By definition, any new subsurface disposition or subsurface right does not qualify as an existing commitment, as it came into effect after the protected area was established.

For greater clarity, this Note 1 does not apply to metallic and industrial minerals, coal, or other Crown minerals.

Note 2: Freehold Minerals

Freehold minerals (petroleum and natural gas, coal, metallic and industrial minerals, other minerals) are exempt from the restrictions associated with any part of this plan including conservation areas and recreation and parks areas. Further, access to freehold minerals will be permitted where the only available route is through conservation areas (e.g., Pekisko Heritage Rangeland). Such access will involve minimizing surface disturbance.

Note 3: Surface Materials (sand, gravel, clay, marl, silt and peat)

Existing surface materials leases will be honoured in conservation areas and recreation and parks areas, in accordance with existing policy (e.g.: Alberta Aggregate (Sand and Gravel) Allocation Policy for Commercial Use on Public Land).

Note 5: Linear infrastructure

Linear infrastructure (roads, electric transmission, pipelines, water management, telecommunication towers and underground fibre-optic cables) are generally prohibited within conservation areas and recreation and parks areas. There are three exceptions to this general rule:

1) Linear infrastructure developed in accordance with activities, approvals and agreements or their renewal that is part of honouring existing petroleum and natural gas tenure as explained by Note 1;
2) Linear infrastructure developed in accordance with activities, approvals and agreements or their renewal that is part of honouring freehold minerals as explained by Note 2; or
3) Linear infrastructure developed in accordance with activities, approvals and agreements or their renewal that is part of honouring existing surface material tenure as explained by Note 3; or
4) Cabinet has designated and approved a Multi-Use Corridor.

<u>Explanatory Notes:</u>

Note A: Commercial Forestry

Management for wildfire, insect and disease control will be allowed in areas where commercial forestry activities are not permitted. This may include prescribed fire, single tree removal or other limited treatments as necessary.

Note B: Grazing

Existing grazing activities will continue. Approvals for new grazing dispositions are subject to a grazing suitability assessment.

Note C: Off-highway vehicles:

Where it is a permitted use, off-highway vehicle use will be managed to designated off-highway vehicle trails and areas, subject to the following:

- Off-highway vehicle use is permitted only on existing off-highway vehicle trails and areas where a management plan, trails plan, regulation, sign, notice, or trail marker designates such use.
- In new or expanded areas where off-highway vehicle use is permitted and designation of trails or areas has not yet occurred, use of existing off-highway vehicle trails and areas can continue in the interim until the earliest of:
  - a trail plan or management plan is developed which identifies where off-highway vehicle use will be permitted; or
  - off-highway vehicle use is otherwise restricted by regulation.
- **No new trails or routes or access** may be developed without a management plan, trail plan or regulation.
- Off-highway vehicle use shall not occur in the beds and shores of permanent water bodies.
- Off-highway vehicle use shall not occur on power line rights-of-way, utility corridors, or industrial facility areas (e.g., well-sites), unless specifically authorized to do so.
- In areas designated as Heritage Rangelands, grazing lease holders are permitted to use off-highway vehicles in connection with the exercise of holders' rights under the grazing lease.

Note D: Hunting, Fishing and Trapping (including by Aboriginal peoples)

With the exception of new public motorized access management requirements, hunting, fishing and trapping will continue in accordance with existing provincial laws governing such activities as such laws may be amended or replaced from time to time. Hunting includes commercial guiding and outfitting operations where wildlife species management plans provide an allocation for that use. Existing trapping will be honoured.

Note E: Multi-use Corridors

A multi-use corridor is a dedicated land area identified by Cabinet for co-location of linear infrastructure that supports critical economic linkages and is in the public interest. A multi-use corridor may include one or more of the following:

- public highways and roads;
- electric transmission;
- high-speed rail and rail;

- pipelines;
- water management;
- telecommunication towers and underground fibre-optic cables; and
- recreation trails.

Note F: Protected Areas

Alberta uses the International Union for Conservation of Nature (IUCN) system of protected areas categories for both national and international reporting purposes. The system enables comparisons to be made globally by categorizing protected areas with similar purposes, objectives and uses regardless of the legislated classification system used in various jurisdictions around the world. Sites in Alberta that meet the IUCN criteria for "protected areas" are reported according to this system regardless of the current provincial classification, or whether they are considered Conservation Areas or Provincial Parks or Provincial Recreation Areas in this plan. The Conservation Areas Reporting and Tracking System (CARTS) provides the public with protected areas data for Canada using IUCN categories (www.ccea.org/en_carts.html).

Schedule C: South Saskatchewan Regional Plan Map

SCHEDULE C: SOUTH SASKATCHEWAN REGIONAL PLAN MAP

NEW AND EXPANDED CONSERVATION AREAS

Wildland Provincial Park
- A Don Getty
- B Bow Valley
- C Bluerock
- D High Rock
- E Bob Creek
- F Livingstone Range
- G Castle

Heritage Rangeland
- H Pekisko

NEW AND EXPANDED RECREATION AND PARK AREAS

Provincial Park
- 1 Elbow Valley
- 2 Sheep River
- 3 Chinook
- 4 Syncline
- 5 Cypress Hills

Provincial Recreation Area
- 6 Sibbald Lake
- 7 Crowsnest Lake
- 8 Coleman

- City, Town
- First Nations Reserve
- Military Reserve
- Provincial Park or Protected Area
- National Park
- Green Area
- White Area
- South Saskatchewan Region
- Provincial Highway

Kilometers
0 20 40 80

Alberta Government

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Information as depicted is subject to change, therefore the Government of Alberta assumes no responsibility for discrepancies at time of use.

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