

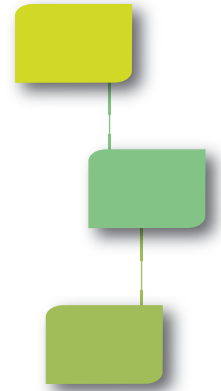


Lower Athabasca Regional Plan

2012 - 2022



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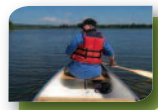


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Introduction



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.

Contributions from the Lower Athabasca Regional Advisory Council, First Nations and Métis communities, stakeholders, municipalities and the public have informed the development of the Lower Athabasca Regional Plan (LARP). The development of the LARP used a three-phase consultation process which gathered:

- input on the region's issues;
- feedback on the advice from the Lower Athabasca Regional Advisory Council; and
- feedback on the Government of Alberta's Draft Lower Athabasca Integrated Regional Plan.

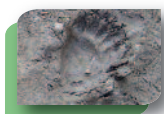
Purpose

The LARP 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 LARP 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.

The LARP:

- 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 Alberta government committed to manage the cumulative effects of development on air, water, land and biodiversity at the regional level. Cumulative effects management focuses on achievement of outcomes, understanding the effects of multiple development pressures (existing and new), assessment of risk, 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 achievement of 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 Alberta government departments, boards and agencies, and municipal governments – responsible for making decisions about activities in the region. The LARP applies to Crown and private lands in the region.

Private Lands

Planning on private lands is primarily governed by the *Municipal Government Act* and instruments made under its authority.

Municipal governments maintain their 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 will remain 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.

Métis Settlements likewise maintain their responsibility and authority for local land-use planning and development on settlement patented land.

Elements of a Cumulative Effects Management System

Outcomes-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 objectives. Activities will be managed to achieve outcomes.

Place-based:

Different regions may have different needs and outcomes.

Knowledge-based:

Foundation of the system is a sound knowledge base and performance management, 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.

Private landowners make decisions about how to use and manage their land consistent with existing provincial and municipal legislation. The LARP does not change this or alter private property rights.

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

Crown Lands

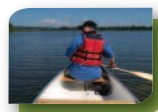
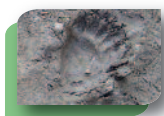
Crown lands include lands that are administered as public lands under the *Public Lands Act*, parks under the *Provincial Parks Act* and highways under the *Highways Development and Protection Act*. Crown lands are owned by the Crown and managed for the benefit of all Albertans. The Alberta government 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, tree harvesting, energy development or recreational use. In addition, the Alberta government 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 public lands, direction under the LARP will be delivered through existing legislation such as the *Public Lands Act*, the *Forests Act* and the *Provincial Parks Act* and through existing tools such as integrated resource 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.

Within the Lower Athabasca Region, integrated resource plans have been developed which identify objectives for long-term management of specific landscapes. These plans represent the Government of Alberta's resource management policy for public lands and resources within the defined area and are intended to be a guide for decision-makers. The following government – approved integrated resource plans are in place for the region:

- Cold Lake Sub-Regional – Integrated Regional Plan (1996);
- Fort McMurray Athabasca Oil Sands Sub-Regional – Integrated Resource Plan (2002); and
- Lakeland Sub-Regional – Integrated Resource Plan (1985).

Development decisions on Crown lands will have to be in alignment with the regional plan to achieve the regional outcomes established in the plan. Within two years, existing sub-regional integrated resource plans will be reviewed for their relevance and incorporated as appropriate under the implementation strategies in the LARP or future sub-regional or issue-specific plans developed within the region.



In addition to the integrated resource plans, there are a number of guiding documents for land use in the region. These include the following:

- Avenir Regional Integrated Decision (1994);
- Lakeland – East Frenchman Lake – Integrated Resource Plan (1984);
- Lakeland – South Beaver Lake Local Plan – Integrated Resource Plan (1985);
and
- Winefred Lake and Grist Lake – Regional Integrated Decision (2000).

These, along with the Richardson Access Management and the Moose Lake Access Management planning initiatives will be assessed for inclusion in the LARP implementation.

Informing Land-use Decisions

The LARP 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 Alberta government 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 LARP. 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 LARP.

Aboriginal Peoples

Alberta recognizes that those First Nations and Métis communities 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. 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

Co-ordination with other jurisdictions such as the federal government, provinces and territories, 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 LARP 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.



Regulatory Details Plan

Part 1 General

Definitions

1 In this regional plan,

- (a) “Act” means the *Alberta Land Stewardship Act*;
- (b) “LARP Digital Map” means the map attached as Schedule “G” to the LARP Implementation Plan;
- (c) “LARP Implementation Plan” means that portion of this regional plan identified by the subtitle “Implementation Plan” and includes the Tables and Schedules, but does not include those portions of the LARP Regulatory Details Plan found among and set apart from the provisions of the LARP Implementation Plan;
- (d) “LARP Introduction” means that portion of this regional plan identified by the subtitle “Introduction”, but does not include those portions of the LARP Regulatory Details Plan found among and set apart from the provisions of the LARP Introduction;
- (e) “LARP Regulatory Details Plan” means those portions of this regional plan identified by the following subtitles:
 - (i) **“Regulatory Details Plan Part 1 General”**,
 - (ii) **“Regulatory Details Plan Part 2 Conservation Areas”**,
 - (iii) **“Regulatory Details Plan Part 3 Conserved Land”**,
 - (iv) **“Regulatory Details Plan Part 4 Air Quality”**,
 - (v) **“Regulatory Details Plan Part 5 Surface Water Quality”**,
 - (vi) **“Regulatory Details Plan Part 6 Groundwater”**,
 - (vii) **“Regulatory Details Plan Part 7 Recreation and Tourism”**,
 - (viii) **“Regulatory Details Plan Part 8 Monitoring and Reporting”**,
- (f) “LARP Strategic Plan” means that portion of this regional plan identified by the subtitle “Strategic Plan”;
- (g) “planning region” means the Lower Athabasca Integrated Planning Region.

Application of regional plan

2(1) Subject to subsections (2) and (3), 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

in respect of land, activities, effects, the environment, species and thresholds in the planning region.

(2) If, in the opinion of the Designated Minister responsible for the following portions of this regional plan:

- (i) **“Regulatory Details Plan Part 4 Air Quality”**,
- (ii) **“Regulatory Details Plan Part 5 Surface Water Quality”**,
- (iii) **“Regulatory Details Plan Part 6 Groundwater”**,

Regulatory Details Plan

Part 1 General - cont'd

an activity or proposed activity in respect of land in another planning region is directly or indirectly contributing to the exceedance of a limit or trigger within the meaning of those Parts, the Designated Minister may, by order, declare that the relevant Part applies to one or more of the following entities outside the planning region:

- (a) the Crown,
- (b) a decision-maker or decision-makers,
- (c) a local government body or local government bodies, or
- (d) subject to section 15.1 of the Act, any other person or all other persons,

in respect of the activity or proposed activity.

(3) Whether or not a statutory consent has been issued for the activity or proposed activity, if the Designated Minister issues an order referred to in subsection (2), the entity or entities referred to in the order shall, in respect of the activity or proposed activity, comply with the provisions of the relevant Part specified in the order until the earlier of

- (a) the time specified in the order,
- (b) the order is repealed, or
- (c) a regional plan comes into force with respect to the activity, proposed activity or entity.

LARP Introduction not binding

3 The provisions of the LARP Introduction are not intended to have binding legal effect, and are statements of provincial policy to inform the Crown, decision-makers, local government bodies and all other persons in respect of this regional plan and the planning region.

LARP Strategic Plan not binding

4 Except as otherwise provided in this LARP Regulatory Details Plan, the provisions of the LARP Strategic Plan are not intended to have binding legal effect, and are statements of provincial 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;



Regulatory Details Plan

Part 1 General - cont'd

- (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 effect of human endeavour and other events;
- (g) responding to the cumulative effect of human endeavour and other events;
- (h) generally in respect of carrying out their respective powers, duties and responsibilities.

LARP Implementation Plan not binding

5 Except as otherwise provided in this LARP Regulatory Details Plan, the provisions of the LARP Implementation Plan are not intended to have binding legal effect, and are statements of provincial 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 endeavour and other events;
- (e) responding to the cumulative effect of human endeavour and other events;
- (f) generally in respect of carrying out their respective powers, duties, and responsibilities.

LARP Regulatory Details Plan binding on the Crown and others

6 The LARP Regulatory Details Plan is enforceable as law, and, despite the location of Parts of it within this regional plan, the provisions of the LARP Regulatory Details Plan bind

- (a) the Crown,
- (b) decision-makers,
- (c) local government bodies, and
- (d) subject to section 15.1 of the Act, all other persons.

Functions and decisions based on regional plan

7(1) After the coming into force of this regional plan, a decision-maker shall, before carrying out any function in respect of the decision-maker's powers, duties and responsibilities in the planning region, consider the LARP Strategic Plan and the LARP Implementation Plan.

(2) After the coming into force of this regional plan, a local government body shall, before carrying out any function in respect of the local government body's powers, duties and responsibilities in the planning region, consider the LARP Strategic Plan and the LARP Implementation Plan.

Regulatory Details Plan

Part 1 General - cont'd

(3) Notwithstanding subsections (1) and (2), a decision-maker or local government body 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 LARP Strategic Plan or LARP Implementation Plan, or
- (b) the incompleteness by the Crown or any body of any direction or commitment made in a provision of either the LARP Strategic Plan or LARP Implementation Plan.

(4) A statutory consent issued after the coming into force 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

8 The Designated Minister responsible for any element or provision of this regional plan may, by order, establish delegated authorities and the delegation to one or more delegated authorities of 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 regional plan and make any provision with respect to any such delegation that is made with respect to the Labour Statutes Delegation in Schedule 10 to the *Government Organization Act* or that may be made by regulations under section 2 of that Schedule.

Reporting requirements

9(1) The Designated Minister responsible for any element or provision of this regional plan shall report on the matters referred to in sections 17, 20(b), 24(b) and (c), 31(b) and (c), 37, 45 and 48

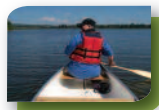
- (a) not less than once within the first 4 years following the coming into force of this regional plan, and
- (b) not less than once within the next following 5 years after the expiry of the period referred to in clause (a).

(2) A 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 secretariat's website.

Compliance declaration

10(1) For the purposes of section 20(2) of the Act, the time within which a local government body must comply with that section is 5 years.

(2) For the purposes of section 21(2) of the Act, the time within which a decision-making body must comply with that section is 2 years.



Regulatory Details Plan

Part 1 General - cont'd

Transitional provisions applicable to statutory consents

11(1) This regional plan applies to an application for a statutory consent whether the application is made before or after the date this regional plan comes into force.

(2) If at the time this regional plan comes into force, a statutory consent has been issued and this regional plan makes the activity in respect of which the statutory consent was issued inconsistent with or non-compliant with this regional plan, the statutory consent continues in effect despite the coming into force of this regional plan.

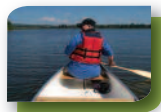
(3) For greater clarification, an inconsistent or non-compliant activity referred to in subsection (2) is subject to lawful directions of an official under sections 26 and 33 to a person responsible within the meaning of those sections.

(4) Subject to subsection (5), where an application is to be determined after the coming into force of this regional plan 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 LARP Strategic Plan, but the decision-maker shall render his or her decision in respect of the application notwithstanding the provisions of the LARP Implementation 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).

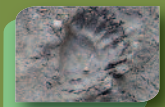
Coming into force

12 This regional plan comes into force on September 1, 2012.





Strategic Plan



The Region Today

The Lower Athabasca Region covers approximately 93,212 square kilometres and is located in the northeast corner of Alberta.

It is bordered to the north by the Northwest Territories and to the south by the County of Vermilion River, County of St. Paul and Smoky Lake County. To the east, it is bordered by Saskatchewan and to the west by Wood Buffalo National Park, Mackenzie County and the Municipal District of Opportunity.



Alberta's oil sands represent more than 95 per cent of Canada's oil reserves.

Oil sands production more than doubled between 2000 and 2011 to approximately 1.7 million barrels per day of crude bitumen.

Oil sands production has been forecasted to rise to 3.5 million barrels per day by 2020.

Economic Development

One of the most significant characteristics of the region is the abundance of oil sands resources. The region includes a substantial portion of the Athabasca oil sands area, which contains approximately 82 per cent of the province's oil sands resource and much of the Cold Lake oil sands area.

The oil sands are the third largest petroleum reserve in the world, third only to Saudi Arabia and Venezuela. Utilizing current technology, approximately 169 billion barrels of oil sands, or nine per cent of the entire initial in-place resource—estimated at 1.8 trillion barrels—can be recovered economically. With technological innovation a much greater proportion of Alberta's oil sands resource could be recovered in the future.

Alberta's oil sands are a significant resource that has the potential not only to meet provincial and national energy needs, but also offer security of supply to the global community in the future. Alberta has a stable political environment and a commitment to develop this vast resource in ways that achieve social and environmental sustainability.

Alberta's oil sands resource provides a unique opportunity for the province to be a world energy leader through optimizing opportunities for development, while ensuring environmental responsibilities are met. Alberta is well-positioned to deliver on this through continuous improvement in how we explore, develop and extract oil sands resources through a strong regulatory system and an emphasis on new technology and innovation. Alberta is committed to optimizing the economic potential of the resource, but will do so in ways that are environmentally sustainable and socially acceptable.

The oil sands have emerged as a major contributor to the Albertan and Canadian economies, attracting billions of dollars in investment and generating employment and income for hundreds of thousands of workers in Alberta and across North America.



Oil sands investment has increased dramatically over the past two decades, jumping from \$490 million in 1991 to a high of over \$20 billion in 2008. Oil prices declined post-2008 because of the global recession, and oil sands investment declined by nearly one-half between 2008 and 2009 as a result. However, higher oil prices are positively impacting investment. Oil sands investment is expected to grow by 28 per cent to over \$14 billion in 2011. This investment translates into long-term and well-paying jobs in the region, a sustainable source of tax revenue for both the province and Canada and communities benefiting from the sizable investments made in them.

Royalty revenues from oil sands development help pay for valuable services for Albertans, including important infrastructure, a world class education system and the delivery of health care services. Future royalties will provide Albertans with continued high quality public services, low taxes and an enhanced quality of life.

Abundant opportunities exist for local residents, including aboriginal people, to participate in this economic activity. This participation takes on many forms. In some cases local residents are directly employed by oil sands producers. There has been significant development of entrepreneurial enterprises that provide services needed by oil sands producers, as well as communities developing equity through community-owned and operated corporations and joint ventures. For example, there are over 100 aboriginal-owned businesses in the region.

The Lower Athabasca Region is a diversified economy, and is fast becoming a major international centre for innovation in oil sands and environmental technologies. It is anticipated that local manufacturing and services will continue to expand in support of increasing oil sands 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.

While oil sands development constitutes a significant amount of economic development in the region, other sectors such as metallic and industrial mineral extraction, forestry, agriculture, tourism and service providers also contribute to the region's economic vitality and prosperity. Natural gas exploration and development in the region is expected to continue. One of the major consumers of natural gas is the oil sands industry.

Northern parts of the region have high potential for metallic and industrial minerals. While there have been some limited metallic and industrial mineral surveys completed in the region by both government and industry, the region is considered under-explored with its full potential unknown.

Regionally, there is also significant potential for commercial deposits of building stone such as granite, limestone and sandstone. Other important surface materials, such as sand, gravel, clay, marl, silt and peat are located throughout the region and are important resources to support both industrial development and urban growth.

Forestry is a significant industry within the region, providing employment opportunities for local residents. The forest resource is managed in a sustainable way using a tenure system that includes timber permits, timber quotas and forest

management agreements (FMAs). About 40 per cent of the region is managed under a FMA with embedded timber quotas and permits under the community timber program. A small portion of the public land in the Green Area not covered by a FMA is managed under coniferous timber quotas and permits under the community timber program.

The expansion of oil sands development in the region creates challenges for forestry companies. A growing portion of timber for the region's mills now comes from salvage connected to oil sands and other non-renewable resource developments. Reductions in the forestry land base accumulate due to the long-time horizon for reclamation of oil sands areas. Timber shortfalls are projected over the term of the regional plan.

Approximately five per cent of the region's total land area is used for agriculture with the vast majority of this land located in the southern part of the region. While the province-wide trend has been towards fewer, larger farms, this trend has not been observed in the Lower Athabasca Region. The farming landscape in the Lower Athabasca Region is dominated by a higher proportion of small-to-medium sized operations; approximately 65 per cent of which are involved with the production of livestock, mostly cattle. With over 1,200 farms reporting in the Lower Athabasca Region, agriculture will remain a prominent and important land use in the region for the foreseeable future.

Over one-third of Alberta's hydroelectric potential is within the region, distributed mainly between the Athabasca and the Slave rivers. Hydroelectricity, and other electrical generation, can play a role in improving the reliability and security of our overall energy supply. The Provincial Energy Strategy recognizes the benefits of supporting renewable energy development as a means to achieve clean energy production for today and future generations.

Tourism in the Lower Athabasca Region is primarily based on the many natural attractions within the area, including lakes, rivers, forests and natural areas. These natural attractions provide a range of guided and unguided tourism activities, including hunting and outfitting, fishing, camping, ecotourism and other adventure-based activities. Growing demand for quality lake-based recreation provides opportunities for the region to further develop its tourism potential, diversify its economy and expand its employment base.

The regional economy is important to community viability and sustainability. For example, Canadian Forces Base Cold Lake generates important economic opportunities for the regional and provincial high-tech supply and services sectors. As service and supply industries that support development of the oil sands grow in response to increasing operating, repair and maintenance expenditures as well as capital upgrading, communities become more stable and permanent.



Ecosystems and Environment

The Lower Athabasca Region contains diverse landforms, vegetation and species.

The vast majority of the Lower Athabasca Region is within the Boreal forest, which is characterized by deciduous, mixed wood and coniferous forests interspersed with extensive wetlands, lakes and streams, as well as unique landforms. The northeast corner of the region is Canadian Shield, characterized by rocky exposures and glacial deposits. Wildfire is the dominant ecosystem disturbance agent in the region responsible for the natural pattern of vegetation and associated habitat for wildlife species.

A wide range of fish, wildlife and plant species exist in the region, including: 28 species of fish; over 500 vascular plant species; numerous songbirds, owls and waterfowl; and mammals such as moose, deer, wolves, black bears, muskrats and lynx. The region serves as breeding grounds and staging areas for birds during migration and over-wintering periods. Some species found in the region, such as the woodland caribou, have been identified as species at risk under the federal *Species at Risk Act* and the provincial *Wildlife Act*.

The region spans the catchment areas of three water basins: the Athabasca River Basin, the Beaver River Basin and the Peace/Slave River Basin. Water basins within the region are important over-wintering, spawning and rearing grounds for fish.

The Athabasca River flows north through the region, draining into the Peace-Athabasca Delta near Lake Athabasca. Water quality varies considerably along the length of the Athabasca River and is influenced by natural factors (e.g., geology, soils, groundwater and precipitation), as well as point and non-point source inputs from human development (e.g., industrial wastewater, urban runoff). At present, there are limited wastewater loadings to the Lower Athabasca River, and the water quality index in the Lower Athabasca River, upstream and downstream of Fort McMurray, has consistently demonstrated ratings in the good to excellent range.

The Athabasca River is the main source of water for oil sands mining activities. Close to five per cent of the Athabasca River's average annual flow (measured just downstream of Fort McMurray) has currently been allocated for use, with about three per cent of the flow allocated to oil sands mining operations. Less than one per cent of the flow is actually used on a net basis in the basin as a whole. Many users do not use their full allocation at all times, and return flows to the river in the upper Athabasca River Basin can be used downstream. Concerns about management of the river primarily focus on seasonal variations in flow and periods of low flow.

For in situ oil sands activities, groundwater is the main source of water used. Aquifers in the region have the potential to become affected by resource extraction development and other activities occurring in the region. Historical data indicates a considerable range in physical and chemical groundwater quality indicators throughout the region. This illustrates the high degree of variability in groundwater throughout the region resulting from the natural hydrogeological complexity.

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 those by the industrial, municipal and other sectors—are associated with emissions of a variety of substances, including greenhouse gases, nitrogen oxides, sulphur dioxide, hydrogen sulphide, fine particulate matter and others. In 2010, air quality—as indicated by the Air Quality Health Index, launched in July 2011—would have been rated as “low risk” 98 per cent of the time, based on monitoring in Fort Chipewyan, Fort McMurray, Fort MacKay, Fort MacKay South and Cold Lake. Air pollutant levels measured at all monitoring stations within the region have remained below annual average Alberta Ambient Air Quality Objective (AAAQO) levels. However, some pollutants have exceeded their one-hour or 24-hour AAAQO levels, including some issues with odour-causing substances in recent years.

The Lower Athabasca Region represents the province’s fastest growing regional source of greenhouse gas (GHG) emissions, accounting for approximately 15 per cent of the province’s total GHG emissions. This is largely due to oil sands development associated with meeting the needs of North American energy consumers. However, it is important to note that the oil sands industry has dramatically reduced its GHG emissions intensity—that is, the level of emissions per unit of production—by an average of 29 per cent as of 2009. Much of these improvements are driven by technology development and innovation that has been a central part of realizing the potential of this sector.

Industry in the region is pursuing further opportunities to reduce its carbon footprint and seeks to achieve comparability on a life-cycle basis to industrial production of other crudes in North America. Opportunities include cogeneration, the utilization of offgases from upgraders as petrochemical feedstocks and the consideration of less carbon-intensive extraction techniques. Integrated actions will also take place outside the region to reduce the overall carbon footprint of oil sands production.

The cumulative effects of population growth and economic development in the region are increasing pressures on the region’s air, water, land and biodiversity. The Alberta government is committed to responsible development. Alberta’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 and legislation which are implemented using a full range of both regulatory and non-regulatory tools.

A number of key pieces of legislation include:

- ***Environmental Protection and Enhancement Act*** – Provides for the assessment and regulation of activities to minimize their environmental impacts, based on principles including continuous improvement and pollution prevention. Activities are designated based on their level of risk, where activities with higher risks are subject to increasing levels of regulatory oversight.



- **Water Act** – Provides for the allocation and use of Alberta’s water resources and the protection of rivers, streams, lakes and wetlands.
- **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.
- **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.
- **Forests Act** – Provides for the sustainable management of Alberta’s forests, including a legislated requirement for reforestation.
- **Wildlife Act** – Provides for harvesting limits and designation and recovery of species at risk.
- **Provincial parks legislation** – 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.
- **Alberta Fisheries Regulation** – Provides for harvesting limits.
- **Mines and Minerals Act** – Governs the management of rights in Crown-owned minerals, including the levying and collecting of bonuses, rentals and royalties.

In addition to legislation, a number of strategies—such as the Clean Air Strategy, Water for Life, Alberta’s Plan for Parks and the Land-use Framework—provide high level direction about air, water, land and biodiversity 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.

On behalf of all Albertans, the Government of Alberta also delivers and supports many programs that benefit the environment. Several of these are delivered in partnership with individuals, organizations, the private sector and other governments. Examples include species at risk recovery programs, invasive species management and management practices to minimize biodiversity impacts. Of particular significance in this region, the government encourages the forest and energy sectors to engage in integrated land management (ILM) practices in an effort to co-ordinate their operations and minimize the land disturbance footprint. Furthermore, Alberta is committed to progressive land reclamation to help ensure environmental and land management objectives are met.

In order to understand the effectiveness of Alberta’s environmental management tools, the region’s air, water, land and biodiversity are monitored, evaluated and reported on. Monitoring, evaluation and reporting initiatives and programs in the region are conducted by the Government of Alberta as well as the Wood Buffalo Environmental Association, the Lakeland Industry and Community Association, the Regional Aquatics Monitoring Program and the Alberta Biodiversity Monitoring Institute.

There is significant investment in environmental monitoring, evaluation and reporting systems in the Lower Athabasca Region, including systems for air, surface water, groundwater, land and biodiversity. Recognizing limitations in environmental monitoring, evaluation and reporting, the Government of Alberta is currently undertaking a review of these systems. In 2009, government started building the foundation for a new integrated environmental monitoring system to support Alberta's transition to a cumulative effects management approach.

Following extensive discussions in 2011 between the Governments of Canada and Alberta, a *Joint Canada-Alberta Implementation Plan for Oil Sands Monitoring* ("Joint Implementation Plan") has been developed. The Joint Implementation Plan builds on a foundation of existing monitoring, and is intended to enhance existing monitoring activities. The Joint Implementation Plan describes a phased implementation with monitoring activities over the next three years.

The purpose of the Joint Implementation Plan is to describe how the Governments of Alberta and Canada will put in place a world-class monitoring program for the oil sands to provide assurance of environmentally responsible development of the resource.

The Joint Implementation Plan has a number of objectives:

- Support sound decision-making by governments and as well as stakeholders;
- Ensure transparency through accessible, comparable and quality-assured data;
- Enhanced science-based monitoring for improved characterization of the state of the environment and collect the information necessary to understand cumulative effects;
- Improve analysis of existing monitoring data to develop a better understanding of historical baselines and changes, and
- Reflect the trans-boundary nature of the issue and promote collaboration with the Governments of Saskatchewan and Northwest Territories.

The Joint Implementation Plan addresses the following components:

- Air quality;
- Acid sensitive lands and accumulated aerial deposition;
- Water quality and quantity;
- Aquatic ecosystem health – including health and status of fish and other aquatic species;
- Wildlife toxicology;
- Land biodiversity and habitat disturbance; and
- Data management.



The Joint Implementation Plan outlines how the Governments of Alberta and Canada will work together as partners to implement a world-class monitoring program for the oil sands that integrates air, water, land and biodiversity elements.

The approach to implementation is both phased and adaptive. Monitoring activities will be phased in over the next three years to ensure installation of necessary infrastructure, incremental enhancement of activities and appropriate integration with existing monitoring activities in the region.

A new Oil Sands Data Management Network (OS_DMN) will allow open and transparent public access online to credible, comprehensive oil sands environmental monitoring data and supporting information.

To maximize transparency, an annual report on the status of implementation will be made public.

The Government of Alberta struck an Environmental Monitoring Working Group to provide additional detailed advice on governance and funding of a new provincial system. Recommendations are expected by the summer of 2012.

The Alberta government is also committed to working with Alberta residents to better understand and assess their health concerns. A Letter of Intent was signed between the Fort McKay community and the Government of Alberta on September 26, 2011. The Letter of Intent serves as a symbol of joint commitment to work collaboratively to design and implement a community health assessment in Fort McKay. Community residents will identify their health priorities and be actively engaged in identifying appropriate actions to address those priorities. The process will be led by the community with the support of government.

Human Development

The expansion of oil sands development in the region has created substantial employment opportunities, attracting workers from across Canada and around the world. This has contributed to significant population growth in the region, especially in the Regional Municipality of Wood Buffalo where the majority of growth has occurred in Fort McMurray.

The rate of growth of social and physical infrastructure has not kept pace with rapid population growth and a higher demand for diverse recreational opportunities.

Use of the provincial highway network in the region has markedly increased. The most notable example is provincial Highway 63 connecting Fort McMurray to southern Alberta. Other highways in the region have also realized greater traffic volumes.

The demand for outdoor recreational opportunities such as camping, hunting, fishing and trail use 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 can access the natural experiences the region offers. However, the increase of random use is contributing to environmental impacts, public safety issues, conflict among land users and a loss of the benefits associated with recreation.

More than six per cent of the region is currently within the provincial parks system, which provides a wide-variety of outdoor recreational and educational experiences to visitors. There is also rising demand in the region for new initiatives to foster, promote and preserve cultural activities and cultural heritage. Over 700 archeological sites in the region have significant cultural deposits and will require avoidance or further scientific investigation. Approximately 25 highly significant archeological sites are found in the region, including the Quarry of the Ancestors, which is in the final stages of designation as a provincial historic resource.

The Alberta government collaborates with aboriginal communities toward protecting traditional-use locations of cultural and spiritual significance. These places can be determined to be historic resources and subject to protection under the *Historical Resources Act*.

Many communities in the region are surrounded by forest which is subject to wildfires. Alberta will continue its program of wildfire prevention engineering (FireSmart) to reduce wildfire hazards near communities. The FireSmart program includes partnerships, planning, education and vegetation management around communities and on the broader forest landscape.

The Future of the Region

Regional Vision

The vision for the Lower Athabasca Region reflects the Land-use Framework's vision of Albertans working together to respect and care for the land as the foundation to our economic, environmental and social well-being.

Vision for the Lower Athabasca Region

The Lower Athabasca Region is a vibrant and dynamic region of Alberta. People, industry and government partner to support development of the region and its oil sands reserves. Economic opportunities abound in forestry, minerals, agriculture, infrastructure development, the service industry and tourism. The region's air, water, land and biodiversity support healthy ecosystems and world class conservation areas. Growing communities are supported by infrastructure and people can enjoy a wide array of recreation and cultural opportunities.



The vision describes a desired future state for the Lower Athabasca in which the region's diverse economic opportunities are balanced with social and environmental considerations using a cumulative effects management approach. Cumulative effects management focuses on achievement of outcomes, understanding the effects of multiple development pressures (new and existing), assessment of risk, collaborative work with shared responsibility for action and improved integration of economic, environmental and social considerations.

Alberta's Provincial Energy Strategy calls for our province to be "a global energy leader, recognized as a responsible world-class energy supplier, an energy technology champion, a sophisticated energy consumer and a solid global environmental citizen." The national and international significance of the oil sands resource means that oil sands development will continue to be a centrepiece of Alberta's energy mix, and a dominant activity in the region.

Alberta is committed to responsible development of the oil sands resource, and the province has a strong regulatory system. However, the nature of oil sands development presents unique challenges. Building on decades of experience managing oil and gas resources, Alberta recognizes the need for enhanced co-ordination and integration to continue to ensure the safe, responsible and efficient development of its energy resources.

Alberta must carefully manage the environmental and social impacts associated with the long-term opportunities for oil sands development. Clarity is paramount to the industry in making long-term investments in Alberta. Alberta's intentions and expectations around environmental and social outcomes need to be clearer, so that those who operate on the landscape can co-ordinate, innovate and succeed in creating a balanced set of economic, environmental and social outcomes for the region.

The Government of Alberta recognizes that to meet the challenges we face, environmental management needs to shift to a cumulative effects management approach in order to maintain an acceptable level of air, water, land and biodiversity integrity, while enabling long-term economic benefits for the region and the province.

It is also critical that Alberta attracts and retains a skilled workforce required to support the economic outcomes. By working together, governments and industry can go further to ensure the quality of life in the region meets the expectations of its residents. To achieve this, deliberate steps must be taken to increase the supply and diversity of recreation opportunities in the region.

Infrastructure to support economic development and sustainable communities also needs to be considered. In order to maximize the economic potential of the regional economy, a new systematic and holistic way of looking at the impacts of development is required.

Lower Athabasca Regional Outcomes

Healthy economy supported by our land and resources

- The economic potential of the oil sands resource is optimized; and
- The region's economy is diversified.

Healthy ecosystems and environment

- Landscapes are managed to maintain ecosystem function and biodiversity; and
- Air and water are managed to support human and ecosystem needs.

People-friendly communities with ample recreational and cultural opportunities

- Infrastructure development supports economic and population growth;
- The quality of life of residents is enhanced through increased opportunities for recreation and active living; and
- Inclusion of aboriginal peoples in land-use planning.

These shifts are already underway, as signalled by major Government of Alberta policy frameworks and strategies including the Provincial Energy Strategy; Responsible Actions: A Plan for Alberta's Oil Sands; Water for Life; and the Plan for Parks. The LARP translates these to the regional context and builds upon them by setting out strategic directions that will support achievement of the vision and outcomes.

As a result of a recent review on the government's regulatory processes—the Regulatory Enhancement Project—action is being taken to ensure that Alberta's oil and gas regulatory system is effective and efficient. This includes more co-ordinated policy development and fundamental improvements to the structure of Alberta's regulatory system such as the consolidation of regulatory functions into a single regulator to achieve an integrated, streamlined process.

How We Will Achieve the Vision

To achieve the regional vision, the LARP establishes seven desired regional outcomes. The regional outcomes are consistent with and support the province-wide outcomes set out in the Land-use Framework, namely:

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

Successfully achieving the regional outcomes requires new and improved approaches and tools for managing our lands and natural resources.

The LARP also identifies strategic directions that will improve our ability to balance economic, environmental and social outcomes in the region.

These include:

- Improving the integration of industrial activities on the landscape;
- Encouraging timely and progressive reclamation of disturbed lands;
- Managing air, water and biodiversity through management frameworks that take proactive approaches and set limits and triggers and by minimizing land disturbance in the region;
- Creating new conservation areas that are large, interconnected and maintain intact habitat to support biodiversity;
- Strengthening infrastructure planning to support future growth of the region;
- Designating new recreation and tourism areas to provide diverse recreation opportunities to local residents and tourism products for visitors to the region; and
- Inclusion of aboriginal peoples in land-use planning.



Strategic Directions for the Region

The responsible development of Alberta's oil sands resource is the platform for continued economic growth and success that brings with it tremendous benefits to the people of Alberta and Canada.

In 2011, approximately 1.7 million barrels of total crude bitumen per day were produced in the oil sands—a number that is expected to more than double to about 3.5 million barrels per day by 2020. While oil sands development will be the dominant economic driver, other sectors, such as forestry, conventional gas, minerals, agriculture and other industries and service providers contribute to the economic vitality and prosperity of the region. Steps must be taken as the economy grows and diversifies to ensure multiple industries can maximize opportunities, while minimizing impacts to the environment.

We will continue implementation of:

- The Alberta Provincial Energy Strategy and Responsible Actions: A Plan for Alberta's Oil Sands, which together provide a long-term action plan for Alberta to achieve clean energy production, wise energy use and sustained economic prosperity; and
- Improved regulatory processes to enhance competitiveness of oil sands, forestry and other key industries.

Improving Integration of Industrial Activities

Oil sands development is expected to remain a dominant economic activity in the region. This activity, along with other regional planning aspects like the creation of conservation areas, will have consequences for the forestry industry in terms of timber supplies.

Consistent with current legislation and policy, the Government of Alberta will continue to work with Alberta's forest industry on strategies to mitigate timber shortfalls (for example, enhancing forest management on public lands and working to reduce losses to natural factors such as wildfire, insects and disease).

Industrial operators, along with the diversity of commercial operators that directly or indirectly support oil sands development, must work together to better integrate their activities on public land. To date, the oil sands and forest industries have engaged in integrated land management (ILM) practices on a voluntary basis in an effort to minimize land disturbance footprint (e.g., sharing roads and collaboratively planning operations).

The LARP will make integrated land management between all industrial operators on public land a necessary element of doing business. This will result in better co-ordination of industrial activities, such as shared road networks and infrastructure on public lands; reducing land disturbance of the productive forest land base and minimizing timber shortfalls; and reducing environmental impacts through minimizing the extent and duration of land disturbance footprint.

Progressive Reclamation Strategy

The progressive reclamation strategy for oil sands mining has three key components:

- Updating the **reclamation security policy** using an asset-to-liability approach involving collecting a base security early in the mine's life, when the risk of mine closure or abandonment is low, and full financial security at a later point when assets are somewhat reduced. More total security will be collected than with the previous approach;
- Enhancing **reclamation reporting** by increasing the number of reclamation milestones reported on from three (disturbed, reclaimed, and certified) to eight recognizing that reclamation occurs over long periods of time and goes through many stages. Reclamation data will also be made more accessible to Albertans with the creation of an interactive, map-based website; and
- Clarifying the **reclamation certificate program** including the application process and provincial expectations on reclamation performance, objectives and outcomes.



Encouraging Timely and Progressive Reclamation

Reclamation of industrial sites is a requirement under Alberta legislation, primarily under the *Environmental Protection and Enhancement Act* and the *Public Lands Act*. In general, these laws require that land be returned to an equivalent capability following the completion of industrial activities.

Mineable oil sands projects present unique circumstances, since they are sizeable and occur over several decades. It is not practical or desirable to wait until activities are complete before commencing reclamation.

Alberta's new progressive reclamation strategy for oil sands mining operations will help ensure disturbed lands are reclaimed in a timely fashion. The progressive reclamation strategy includes a suite of initiatives to improve clarity, security and environmental performance within the oil sands mining sector. Initiatives include an enhanced certification process, a transparent public reporting system and a new progressive reclamation financial security program.

In addition, the Government of Alberta will establish a tailings management framework for mineable oil sands operations. The framework will provide guidance on managing tailings to provide assurance that fluid fine tailings will be reclaimed as quickly as possible, and that legacy (current) inventories will be reduced. The framework could include a regional limit for fluid fine tailings and will focus on the development and implementation of new technologies over the next 10 years.

About 80 per cent of Alberta's oil sands are recoverable through in situ methods, which have a less intensive land disturbance footprint than surface mining because of the way oil sands are extracted. Proven in situ methods include steam-assisted gravity drainage (SAGD) and cyclic steam stimulation. These methods are used to extract oil sands from deposits too deep to be accessed by mining. In situ oil sands reclamation will be enhanced through initiatives to manage land disturbance and conserve land to support biodiversity. Reclamation requirements will continue to be an important tool to ensure that regional objectives related to conservation of landscapes and environmental management are met.

Reclaimed lands will be used to help achieve the region's desired economic, environmental and social outcomes based on the region's evolving needs. As oil sands resources are recovered and the lands are reclaimed over time, opportunities will arise to reconnect lands to help achieve regional objectives relating to biodiversity, recreation and forestry.



Managing Air, Water and Biodiversity, and Minimizing Land Disturbance

The Alberta government is committed to managing cumulative effects at the regional level. The use of management frameworks is a new approach to accomplish this. Management frameworks establish outcomes and objectives along with the strategies and actions to achieve them.

The frameworks are intended to add to and complement—not replace—existing policies, legislation, regulations and management tools. This includes important principles, such as pollution prevention, continuous improvement and risk assessment, as well as important management tools, such as emissions minimization through best management and control practices, spill reporting and response and drinking water surveillance. The environmental regulatory system will continue to function with the associated compliance requirements.

Management frameworks for air quality, surface water quality and groundwater quality and quantity have been developed. These frameworks are intended to provide context within which decisions about future activities and management of existing activities should occur. The management frameworks do this by confirming regional objectives and establishing ambient environmental limits and triggers. Limits in these frameworks are intended to be clear boundaries in the system not to be exceeded. Triggers are to be used as warning signals to allow for evaluation, adjustment and innovation on an ongoing basis.

The air quality and surface water quality management frameworks include triggers and limits that are shown in the attached schedules. The groundwater management framework includes interim triggers for regional groundwater quality and describes the process that will be used to develop final triggers and limits.

Ambient air and surface water quality conditions in the region will be monitored with reference to the frameworks. If ambient conditions exceed a trigger level at specified regional monitoring locations, the management response includes assessing the need for action (as outlined in the frameworks). This proactive and dynamic management approach 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. Regional groundwater quality and quantity conditions will also be monitored, and the information used to finalize triggers and limits. A management response may also be initiated in response to this data if it is deemed appropriate to the circumstance.

Decision-makers will make choices about activities on the landscape—considering where ambient air and surface water quality and groundwater conditions are relative to final limits and triggers in the management frameworks. If ambient environmental conditions are approaching—or exceed—environmental limits at specified regional monitoring locations, there will be management actions either restricting further development or enabling changes to current management. Management changes may allow development to proceed in a way that meets the regional objectives and keeps the environmental condition below limits.

Status of Management Frameworks for the Lower Athabasca Region

Approved for Implementation:

- Air Quality Management Framework for the Lower Athabasca Region; and
- Surface Water Quality Management Framework for the Lower Athabasca River.

Approved Approach with Triggers and Limits to be Developed:

- Groundwater Management Framework for the Lower Athabasca Region.

Approved for Development:

- Surface water quantity management framework for the Lower Athabasca River to be updated; and
- Biodiversity management framework for the Lower Athabasca Region to be developed.

Riparian Areas

Riparian areas are the lands adjacent to streams, rivers, lakes and wetlands, where the vegetation and soils are strongly influenced by the presence of water. They are the place where water and land meet and interact. There are several provincial Acts, policies, guidelines and programs in place that establish setbacks from—or development requirements in—riparian areas.

Wetlands

Wetland management in Alberta is currently governed by Wetland Management in the Settled Areas of Alberta: An Interim Policy (1993). The interim policy applies to the White Area of the province. The Government of Alberta is currently developing a new wetland policy to provide clear, consistent guidance for the management of wetlands throughout Alberta. The policy will aim to conserve, restore, protect, and manage Alberta's wetlands to sustain the benefits they provide to the environment, society and the economy. In support of wetland management, a variety of tools will be explored. One such tool is an off-set program delivered through wetland mitigation banking, which seeks to counter-balance the loss of wetlands where negative impacts are not avoidable.



banking, which seeks to counter-balance the loss of



The establishment of ambient environmental limits provides context for decision-making by government and by potential applicants for new projects. The limits also encourage industries and other land users to employ best practices, new technologies and process improvements to minimize impacts on the region's air and water.

To complement the new frameworks for air quality, surface water quality and groundwater management, the Alberta government is committed to updating the surface water quantity management framework for the Lower Athabasca River. The Water Management Framework: Instream Flow Needs and Water Management System for the Lower Athabasca River was developed in 2007, and is being implemented. Work is continuing to update this surface water quantity management framework.

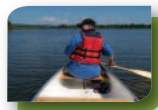
In addition to supporting legislation, notably the *Environmental Protection and Enhancement Act*, the *Water Act* and the *Wildlife Act*, the Alberta government protects and manages biodiversity through a number of programs, often in partnership with environmental organizations and the private sector. These include educational and research programs, support for environmental stewardship and monitoring and reporting activities.

A new biodiversity management framework for the Lower Athabasca Region on public land in the Green Area and provincial parks will bring context to these efforts at the regional level. The framework will be developed by the end of 2013 and will:

- Set targets for selected biodiversity indicators (vegetation, aquatic and wildlife); and
- Address caribou habitat needs in alignment with provincial caribou policy.

A regional landscape management plan will also be developed for the public land in the Green Area by the end of 2013 to support achieving the economic outcomes and objectives defined in the plan, while addressing biodiversity through a well co-ordinated, planned and managed land disturbance footprint. Essential to this approach is the use of ILM by industrial operators, and introduction of land disturbance standards (such as limits and triggers). Best available ILM practices to reduce land disturbance footprint will be utilized. Features of ILM in the Lower Athabasca Region include:

- Co-ordinated industry planning of major access corridors and associated development infrastructure on public land (i.e., work camps, remote airstrips);
- Progressive and timely reclamation of land not required for further oil sands development;
- Timely restoration of linear disturbances where not suitable for re-purposing as approved trails or recreational access routes; and
- Managed public motorized access, where applicable, consistent with the regional trail system plan.



As with air and water, the enforcement of land disturbance standards (such as limits) will encourage industry and other land users to employ innovative approaches to reduce their land disturbance footprint. Triggers will be developed to guide proactive, early management intervention actions. Standards for public land will be set on a regional level, but areas important to economic development (such as oil sands) will experience higher levels of land disturbance, and areas important for biodiversity such as caribou and moose habitat, wildlife movement corridors and riparian areas will experience lower levels of land disturbance.

The process to establish regional land disturbance standards will involve stakeholders to ensure the standards appropriately reflect anticipated future growth and development in parts of the region, as well as environmental and social values.

In developing a biodiversity management framework and a landscape management plan, the Government of Alberta will work with First Nations to consider how First Nations' exercise of constitutionally protected rights to hunt, fish and trap for food can continue to occur within reasonable proximity of First Nations' main population centres.

It is recognized that managing cumulative effects on air, water, land and biodiversity is important to the needs of those aboriginal communities in the region that hold constitutionally protected rights. Accordingly, engagement with these communities is desired as air, water, land and biodiversity strategies and plans are developed.

Implementation of these frameworks will be coordinated to ensure integrated decision-making and achievement of mutually supportive environmental outcomes.

Creating New Conservation Areas

A significant aspect of the LARP is the balance it strikes between development and conservation in the region. Approximately 16 per cent of the region's land base is to be managed as new conservation areas. These lands are in addition to the existing six per cent of the region already protected as wildland provincial parks, which have conservation management intent. These areas will help achieve environmental objectives—especially those for biodiversity—by maintaining ecological systems and processes for biodiversity. They will also create benchmark areas for assessing ecological integrity.

Conservation areas have been selected for their consistency with the key criteria for conservation areas, as outlined in the Terms of Reference for Developing the Lower Athabasca Regional Plan. Of significant note is that the areas represent large, intact and interconnected areas of Boreal forest.

Woodland Caribou

The Government of Alberta is committed to achieving naturally sustaining woodland caribou populations. Stabilizing, recovering and sustaining woodland caribou populations is an investment in maintaining Alberta's diverse natural environment. Successfully achieving this result will require the identification, maintenance and restoration of sufficient caribou habitat.

Within the context of sustaining Alberta's caribou populations, planning and implementation will consider:

- provincial and federal legislative requirements;
- First Nations rights and traditional uses;
- social/economic impacts; and
- stakeholder interests.

- A Woodland Caribou Policy for Alberta

Conservation Areas

- Definition: A clearly defined geographical space dedicated and managed to achieve the long-term conservation of biological diversity and ecosystem process.
- Management Intent: Conservation areas are legally protected areas that are usually large and 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 in LARP

- 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 (i.e., roughly 4000-5000 square kilometres).

-Terms of Reference for Developing the Lower Athabasca Regional Plan



The new conservation areas and existing conserved lands in the Lower Athabasca Region will result in more than two million hectares of conserved lands in the northeastern part of Alberta supporting wildlife movement and habitat stability. The new conservation areas will be enacted under provincial parks legislation or the *Public Lands Act*. Areas enacted under the *Public Lands Act* will allow for a limited level of ecosystem or natural disturbance-based vegetation management (e.g., forestry, prescribed fire) in accordance with international guidelines for protected areas. This management direction will guide the choice of legal designation.

The conservation areas will be managed to minimize or prevent new land disturbance. This means that the land disturbance associated with exploration, development and extraction of in situ and mineable oil sands, metallic and industrial minerals and coal are not considered compatible with the management intent of conservation areas. Commercial forestry operations are generally considered incompatible with conservation areas—however, selected areas may allow a limited level of ecosystem forestry or natural disturbance-based vegetation management.

Petroleum and natural gas tenure will be honoured, consistent with current policy and in accordance with Canadian application of the International Union for Conservation of Nature (IUCN) standards. New petroleum and natural gas tenure sold in a conservation area will include a restriction that prohibits surface access. No new oil sands, metallic and industrial minerals or coal tenure will be sold in conservation areas designated under the LARP.

If natural resources located outside new conservation areas are made inaccessible to disposition holders, government will consider new surface access through these areas in accordance with Canadian application of the IUCN standards. Also, to ensure natural resources within public lands that are surrounded by the Gipsy-Gordon Wildland Provincial Park remain accessible to disposition holders, access through the river valley portion of the park will be permitted in accordance with applicable legislation.

Conservation areas 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. Hunting, fishing and trapping (including by aboriginal peoples) 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. The reduction in land disturbance is expected to enhance opportunities for these activities.

Motorized recreation will be managed to designated trails and areas to mitigate potential biodiversity impacts associated with random motorized access. Government will engage with First Nations and stakeholders on initiatives to designate motorized access such as identification of trails or areas when developing the regional parks plan and regional trail system plan. Off-highway vehicle use is permitted on existing access or where a management plan or trails plan otherwise specify access considerations.



Most native ecosystems in Alberta have evolved with some degree of large mammal grazing and browsing. Modern day range management techniques can mimic natural processes through maintaining a diverse native plant community. In recognition of the potential role of domestic livestock grazing in maintaining biodiversity and ecosystem function, it may be permitted in conservation areas. Approval would be dependent on whether grazing would enhance biodiversity and ecosystem function in accordance with the primary objectives of conservation areas, and would be subject to a successful grazing suitability assessment.

Strengthening Infrastructure Planning

Substantial investment in the Lower Athabasca Region has contributed to significant population growth in the region.

The ability to attract and retain skilled workers will be essential to enable the region's future economic growth and diversification. This will require meeting increased demands on the region's social and physical infrastructure and for more recreation opportunities.

The Alberta government co-ordinates capital expenditure planning through Alberta's 20-Year Strategic Capital Plan, which serves as a long-term blueprint to guide decisions about infrastructure projects. Through the three-year capital plan, the Alberta government delivers on the highest priority commitments identified in the 20-year plan.

Among the key assumptions of the 20-year plan is that major urban centres and the Wood Buffalo area will experience the largest growth in population.

To augment planning for areas of the province where oil sands development will contribute to growth pressures, the Government of Alberta is undertaking Comprehensive Regional Infrastructure Sustainability Planning (CRISP) for the three oil sands areas (i.e., Athabasca, Cold Lake and Peace River). The CRISP process represents a new long-term and collaborative approach to planning infrastructure in Alberta's oil sands areas. Each plan will establish a long-term framework for future infrastructure development based on possible future oil sands production rates and associated population growth, and will enhance the way provincial and municipal governments work and plan together. The plans will inform the province's capital planning process, which considers overall provincial priorities in addition to regional needs.

The CRISP for the Athabasca oil sands area has been completed and the CRISP development for the Cold Lake oil sands area is underway. These two oil sands areas overlay much of the Lower Athabasca Region.

Fort McMurray is the major urban centre within the Regional Municipality of Wood Buffalo (RMWB)¹ and the key service centre for oil sands development. In response to potential oil sands project approvals and construction and increasing industrial and commercial activity, economic and population growth in Fort McMurray is expected to continue for the foreseeable future.

¹The RMWB was established as a specialized municipality by Order in Council 817/94; the order in council created an urban service area (Fort McMurray) and a rural service area (the remainder of the municipality).

The built-up area of Fort McMurray is surrounded by Crown land, and the decision whether to allow provincial Crown land to be converted to private land and sold for development purposes (usually referred to as “land release”) is made by the Government of Alberta. Certainty around the availability of land for future urban development is a critical component in Fort McMurray’s ability to respond to the population growth impacts of oil sands development.

The immediate need for urban expansion is being met by release of Crown lands for two residential neighbourhoods. Parsons Creek and Saline Creek are being planned, and are expected to accommodate an additional 40,000 people. Other Crown lands are being released to accommodate industrial/commercial growth in Fort McMurray.

Providing New Recreation and Tourism Opportunities

The Government of Alberta is committed to growing recreational opportunities and further developing the tourism industry through the identification of new products and services. These new opportunities, ranging from employment to sustainable development, have the potential to improve prospects for sustainable growth and regional prosperity. There is also significant potential to increase the number of visitors, contribute to diversifying employment and raise tourism revenue within the Lower Athabasca Region.

Existing recreation and tourism opportunities in the region’s parks are not meeting the growing demands for outdoor recreation – particularly serviced and un-serviced campgrounds, fishing, motorized recreation, and an interconnected trail system for day use and long-distance trails. Random recreational activities can lead to environmental impacts, land-use conflicts and public safety issues.

Recreation and tourism products and services are important for attracting and retaining the skilled workforce needed to support the region’s economic growth. They also contribute to economic diversification in the region and enhance the quality of life. The Government of Alberta is committed to taking steps to enhance recreation opportunities in the province, through strategies such as the Plan for Parks, the Alberta Recreation Corridor and Trails Designation Program, Active Alberta and through other programs and services aimed at recreation development.

To optimize the recreation and tourism potential for both residents and visitors, the LARP establishes nine new provincial recreation areas and five new public land areas for recreation and tourism. These areas will help provide diverse, enjoyable outdoor recreation opportunities that contribute to healthy lifestyles.

The provincial recreation areas will be managed to minimize industrial land disturbance and ensure quality recreational experiences. Petroleum and natural gas tenure and recreational leases will be honoured, consistent with current policy. Any new petroleum and natural gas or oil sands tenure sold in



a provincial recreation area will include a restriction that prohibits surface access. Access to water resources and associated allocation and disposal infrastructure will be permitted in the new provincial recreation areas in the Lower Athabasca Region. To ensure other natural resources on public land remain accessible to disposition holders, the government will consider new surface access through these provincial recreation areas in the context of the existing legislation and regulatory system. In such cases, and when possible, existing access routes would be used or amended as necessary. Future proposals for hydropower generation would be considered by government in the context of the regional outcomes and objectives defined in the plan. Upon the approval and designation of the Fort McMurray Urban Development Sub-region (UDSR), the boundaries and or uses within the Athabasca River and Clearwater River public lands areas for recreation and tourism (PLART) will be amended as required to align with the UDSR to facilitate effective land-use planning, efficient infrastructure construction, timely land release and land developments.

The new PLARTs are intended to provide additional recreation opportunities and attract tourism investment. Industrial development activities will continue while impacts on identified recreation and tourism features will be minimized. If approvals are granted in the future for a mining development in the new Richardson PLART, the boundaries for this area will be re-examined, if deemed necessary and acceptable as a result of the regulatory review for the mining development.

The LARP includes a commitment to plan and develop Lakeland Country as an iconic tourism destination. With the province's highest density of high quality recreational lakes, a unique blend of cultural heritage and many attractive recreation features, Lakeland Country offers tremendous tourism potential—including encouraging regional visitors to vacation close to home. The Government of Alberta will work closely with aboriginal peoples, municipal governments, the private sector, interested private landowners and other stakeholders to develop new—or enhance existing—tourism attractions, amenities, accommodations and access. Given the significant oil and gas, oil sands and forestry resources in this area, industrial development activities will continue to be permitted and new industrial tenure will continue to be sold. Private landowners will continue to make decisions about how to use and manage their land consistent with existing provincial and municipal legislation. Lakeland Country will make Alberta even more attractive to tourism investors and help diversify the region's economy.

The Government of Alberta is also committed to taking steps to enhance tourism development in the province through other strategies such as the Tourism Development Strategy and the Recreation and Tourism Management Strategy for Public Land, both currently being developed.

Consistent with the Plan for Parks, new conservation and recreation areas will be considered in the future through a provincial process for nominating new provincial parks. Areas of high conservation value, high recreation value and places that demonstrate strong support from public and local stakeholders may be evaluated.

Inclusion of Aboriginal Peoples in Land-use Planning

Aboriginal culture, with its connection to the land and environment, provides a unique opportunity for engagement in land planning, conservation, recreation and tourism initiatives.

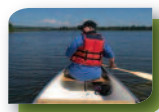
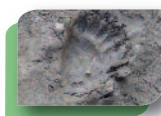
Within a framework of respecting heritage and natural spaces and ensuring sustainable efforts will benefit future generations, engagement of Alberta's aboriginal communities presents opportunities to achieve lasting partnerships while providing opportunities for employment, careers and increased economic activities.

As such, the Alberta government will look for opportunities to engage these communities and invite them to share their traditional ecological knowledge to inform land and natural resource planning in this region. For example, the regional parks plan for the Lower Athabasca Region will explore and present potential new approaches to draw on the rich cultural, ecological and historical knowledge and stewardship practices of these communities into planning for new and existing parks within the provincial parks system.

The Alberta government will invite First Nations who have expressed an interest in the Richardson Backcountry to be involved in a sub-regional initiative called the First Nations – Richardson Backcountry Stewardship Initiative (or Richardson Initiative).

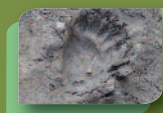
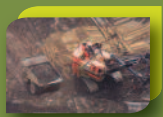
The Alberta government will also work with aboriginal people to identify tourism and cultural experiences which could provide economic opportunities to aboriginal communities.

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.





Implementation Plan



Strategies and Outcomes

The LARP is designed to help achieve the three desired province-wide outcomes of the Land-use Framework. The regional vision describes the desired future state of the Lower Athabasca Region, and is consistent with the outcomes and principles of the Land-use Framework.

To support achievement of the three province-wide outcomes and the regional vision, the LARP identifies regional outcomes. These qualitatively describe what we wish to achieve at the regional level.

A number of objectives are identified for each regional outcome and describe what must be done to achieve the outcome. Strategies describe regulatory and non-regulatory approaches that will be used to achieve each objective.

As a means of assessing whether regional outcomes and objectives are being achieved, a series of economic, environmental and social indicators will be regularly monitored, evaluated and reported.

Various governments, ministries and agencies will work together in an integrated manner as they 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.



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.

Vision For The Lower Athabasca Region

The Lower Athabasca Region is a vibrant and dynamic region in Alberta. People, industry and government partner to support development of the region and its oil sands reserves. Economic opportunities abound in forestry, minerals, agriculture, infrastructure development, the service industry and tourism. The region's air, water, land and biodiversity support healthy ecosystems and world-class conservation areas. Growing communities are supported by infrastructure and people can enjoy a wide array of recreation and cultural opportunities.

Regional Outcomes

1. The economic potential of the oil sands resource is optimized;
2. The region's economy is diversified;
3. Landscapes are managed to maintain ecosystem function and biodiversity;
4. Air and water are managed to support human and ecosystem needs;
5. Infrastructure development supports economic and population growth;
6. The quality of life of residents is enhanced through increased opportunities for recreation and active living; and
7. Inclusion of aboriginal peoples in land-use planning.

Outcome 1:

The economic potential of the oil sands resource is optimized

Strategies:

- a) Continue implementation of the **Alberta Provincial Energy Strategy** and **Responsible Actions: A Plan for Alberta's Oil Sands**, which together provide a long-term action plan for Alberta to achieve clean energy production, wise energy use and sustained economic prosperity. Alberta will remain a global energy leader, recognized as a responsible world-class energy supplier, an energy technology champion, a sophisticated energy consumer and a solid global environmental citizen.
- b) Continued implementation of **improved regulatory processes** to enhance competitiveness of oil sands and other key industries. More co-ordinated policy development and integration of regulatory delivery will ensure that Alberta's oil and gas regulatory system is modern, efficient, performance-based and competitive, while maintaining high environmental standards.

- Development of a sub-regional plan using a strategic environmental assessment approach for the south Athabasca oil sands area. Undertaking this assessment at a sub-regional scale will contribute to the management of cumulative effects and support efficiencies in the regulatory review process for in-situ oil sands operations.
- c) Continued implementation of the **Building and Educating Tomorrow's Workforce** strategy to develop the knowledge and skills of Albertans, attract and retain workers in Alberta's labour market and to improve workplace productivity; and facilitation of implementation of the **Workforce Strategy for Alberta's Energy Sector**, an initiative led by industry stakeholders.
- d) Implementation of key recommendations in **Connecting the Dots: Aboriginal Workforce and Economic Development in Alberta** to increase labour force participation and economic development opportunities for aboriginal people in Alberta.

Alberta's regulatory framework will ensure industry maintains its competitiveness, and regulatory oversight will ensure social and environmental objectives in the LARP are achieved.

Provincial legislation governing the oil sands industry includes the *Mines and Minerals Act*, the *Oil Sands Conservation Act*, the *Energy Resources Conservation Act*, the *Freehold Minerals Tax Act*, the *Pipeline Act*, the *Alberta Corporate Tax Act*, the *Environmental Protection and Enhancement Act*, the *Water Act*, the *Public Lands Act* and the *Alberta Land Stewardship Act*. Various other regulatory and non-regulatory requirements including policies, strategies and frameworks apply as well.

Supporting indicators for outcome:

- Labour force by sector;
- Provincial royalties;
- Personal income;
- Oil sands production rate;
- Total oil sands investment; and
- Cost of production.

**Outcome 2:
The region's economy is diversified**

Forestry

Objective:

- Maintain and diversify the region's forest industry.

Strategies:

- a) **Prevent future shortfalls in timber supply** through:
 - Using an **integrated land management** approach, including



practices such as planning common major access corridors (shared roads) and infrastructure (camps, remote air strips), progressive reclamation of disturbed land no longer needed for oil sands development and timely removal of linear disturbances, to minimize loss of productive forest land. This approach will be implemented when the landscape management plan referenced in Outcome 3 (c) is implemented.

- The forest industry identifying opportunities **to enhance the management of forest stands and regeneration** on public land for the purpose of improving growth rates.
- b) Minimize loss of productive forest timber volume by government and industry supporting **wildfire management planning** initiatives including the development of landscape wildfire risk assessments, natural disturbance approaches and landscape FireSmart strategies (e.g. identification of landscape fire breaks, prescribed fire application).
- c) 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.

The forest industry is primarily governed by the *Forests Act*, the *Public Lands Act* and associated standards (Forest Management Planning Standard, Timber Harvest Ground Rules, Enhanced Approval Process standards).

Indicators:

- Area of public land actively managed for enhanced forestry; and
- Area of land disturbance on productive land base on public land in the region.

Agriculture

Objective:

- Maintain and diversify the region's agricultural industry.

Strategies:

- a) Municipalities are encouraged to **identify areas** where agricultural activities, including extensive and intensive agricultural and associated activities, should be the primary land use in the region.
- b) Municipalities are encouraged to **limit the fragmentation** of agricultural lands and their premature conversion to other non-agricultural uses, especially within areas where agricultural has been identified as a primary land use in the region.
- c) Where possible, municipalities are encouraged 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.

- d) Municipalities are encouraged to **minimize conflicts between intensive agricultural operations and incompatible land uses** by using appropriate planning tools, setback distances and other mitigative measures.

Provincial legislation governing the agriculture industry includes the *Municipal Government Act*, the *Agricultural Operation Practices Act* and the *Public Lands Act* with respect to grazing leases. In addition, the Natural Resources Conservation Board is involved with regulating confined feeding operations.

Indicator:

- Fragmentation and conversion of agricultural land to non-agricultural land uses.

Tourism

Objective:

- Tourism potential of the region is optimized.

Strategies:

- a) Develop and implement the **Lakeland Country Destination Development Strategy and Tourism Opportunity Plan** in collaboration with aboriginal peoples, municipalities and local stakeholders. (See Schedule A – LARP Digital Map and Schedule G for details).
- b) Work collaboratively with local aboriginal communities, the private sector and local governments to **enhance and expand the supply** of tourism products and infrastructure—including attractions, activities, amenities and accommodations.
- c) Identify, designate and market **tourism development nodes** in consultation with aboriginal peoples, municipalities and stakeholders.
- d) Complete **tourism opportunity assessments** beginning with Quarry of the Ancestors, Bitumount and Fort Chipewyan. The assessments will help identify a range of potential aboriginal tourism opportunities, including guided tours, education programs, attractions, exhibits or interpretive sites.
- e) Work with municipal governments and other partners to establish and promote a **scenic byways network** in and around areas with high quality attractions including routes, trails and waterways to create distinctive travel experiences and showcase the region's unique scenic resources.



There is great potential for increased tourism and recreational development in the region, particularly in Lakeland Country. The region is home to diverse cultures, a rich heritage and tremendous recreation and tourism features—including superior lakes, sandy beaches, world-class whitewater paddling, remote backcountry experiences and a variety of fish and wildlife. Additional opportunities would reduce the amount of tourism and recreational investment lost to other jurisdictions and support economic

diversification in the region. A competitive tourism industry and the availability of quality outdoor recreation opportunities depend on a sufficient supply of land where the integrity of attractive features, settings and scenery are maintained and long-term access is provided.

Indicators:

- Tourism visitation;
- Tourism visitor expenditures; and
- Tourism occupancy.

Energy, Minerals and Coal

Objective:

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

Strategies:

- a) Rules regarding **physical access to energy, mineral and coal resources** are clear to ensure economic development opportunities and environmental concerns are appropriately considered against other land uses.
- b) Policies are developed that **promote new investments** in energy, mineral and coal resource development.

Growth of all energy sub-sectors is crucial for the regional and provincial economy. While oil sands is the dominant energy industry in the region, continued hydroelectrical and other electrical, natural gas development and mineral resource exploration, development and extraction will support regional, provincial and international sources of supply. Maintaining a positive investment climate is critical to the success of these industries and alignment of policy direction across regions will facilitate optimum access to these and other non-renewable resources.

Provincial legislation governing the energy, mineral and coal sectors include the *Mines and Minerals Act*, the *Gas Resources Preservation Act*, the *Gas Utilities Act*, the *Freehold Minerals Right Tax Act*, the *Energy Resources Conservation Act*, the *Oil and Gas Conservation Act*, the *Coal Conservation Act*, the *Coal Sales Act*, the *Environmental Protection and Enhancement Act*, the *Water Act*, the *Electric Utilities Act*, the *Hydro and Electric Energy Act*, the *Public Lands Act* and the *Alberta Land Stewardship Act*. Various other regulatory and non-regulatory requirements including policies, strategies and frameworks apply as well.

Surface Materials (sand, gravel, clay, marl, silt and peat)

Objective:

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

Strategies:

- a) Allocate surface materials appropriately and monitor extraction operations to provide opportunities for sustainable development of the land.

Surface materials are an essential component for development and maintenance of infrastructure throughout the region and province. Maintaining opportunities for surface materials resource extraction supports the increasing need for surface materials products to keep pace with the region and 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 material extraction on public lands is the *Public Lands Act*. The regulation grants approvals for surface material 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.

Supporting indicators for outcome:

- Sectoral gross domestic product (GDP); and
- Sectoral employment.

Outcome 3:

Landscapes are managed to maintain ecosystem function and biodiversity

Objectives:

- Enhance the regional network of conservation areas to support biodiversity and ecosystem function.
- Regional biodiversity objectives are developed for various indicators of terrestrial and aquatic biodiversity in the region.
- Land disturbance impacts to biodiversity should be avoided or mitigated.
- Increase the rate of reclamation and enhance the reduction of tailing ponds.

Strategies:

- a) Create new **conservation areas** on provincial Crown land. (See Schedule G - LARP Digital Map and Schedule F – LARP Land Uses.)
- b) Manage **existing conserved lands** to achieve long-term conservation of biological diversity and ecosystem processes.

Land-use activities in the existing provincial parks system will be managed in accordance with relevant legislation.



Regulatory Details Plan

Part 2 Conservation Areas

Definitions

13 In this Part, “conservation area” means the lands identified as conservation areas and labelled “1” through “6” on the LARP Digital Map.

Designated Minister in respect of five conservation areas

14 For the purposes of this Part in respect of conservation areas 1, 2, 3, 4 and 5 as shown on the LARP Digital Map, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Provincial Parks Act* is the Designated Minister.

Designated Minister in respect of one conservation area

15 For the purposes of this Part in respect of conservation area 6 as shown on the LARP Digital Map, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Public Lands Act* is the Designated Minister.

Conservation objectives

16(1) The Designated Minister may take whatever steps that in the opinion of the Designated Minister are desirable for achieving the conservation objectives of the LARP Strategic Plan and LARP Implementation Plan and for implementing Schedule “F” to the LARP Implementation Plan in respect of conservation areas.

(2) Subject to any other law, a statutory consent may be renewed in a conservation area if the statutory consent is, at the effective date of renewal, in good standing under the provisions of the enactment or enactments applicable to the statutory consent, and

- (a) if the statutory consent is consistent with this regional plan; or
- (b) if the statutory consent is inconsistent with or non-compliant with this regional plan, within the meaning of section 11(2), but
 - (i) is an agreement under the *Mines and Minerals Act* or a disposition under the *Public Lands Act* that is valid and subsisting at the time this regional plan comes into force, or
 - (ii) if it is not an agreement or disposition referred to in subclause (i), but is, within the meaning of section 11(4), incidental to an agreement or disposition referred to in subclause (i).

Programs to manage objectives

17 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 relevant conservation objectives in the LARP Implementation Plan.

Regulatory Details Plan

Part 3 Conserved Land

Designated Minister

18 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

19 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; and
 - (iii) range improvements within the meaning of regulations and rules under the *Public Lands Act*.
- (b) “conserved land” means
 - (i) parks designated under the *Provincial Parks Act*,
 - (ii) wilderness areas, ecological reserves, and natural areas designated under the *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act*, and
 - (iii) public land use zones managed for one or more conservation purposes and declared under the *Public Lands Act*.

Conserved land

20 The Designated Minister shall establish and maintain programs

- (a) monitoring the total combined area of conserved land in the planning region, and
- (b) evaluating the ratio of conserved land referred to in clause (a) to the total area of land comprising the planning region.



- c) Develop a **biodiversity management framework** for public land in the Green Area and provincial parks in the region by the end of 2013. The framework will be developed in association with aboriginal communities, municipalities, industry stakeholders and the public to include:
- Indicators - for regional and watershed-level biodiversity to track plan performance and overall ecosystem health based on biodiversity quality and abundance;
 - Measurement - targets/thresholds required to maintain native vegetation, fish and wildlife. Targets will be specific numerical objectives framed within the context of assuring ecosystem function and landscape/watershed connectivity. Measures of biodiversity will follow International Union of Conservation of Nature (IUCN) conventions for legally designated species. For non-designated species, a risk-based approach informed by IUCN protocols will be used.
- d) Develop an integrated, watershed-based **landscape management plan** for public land in the Green Area in the region by the end of 2013 (working initially in conjunction with the development of a sub-regional plan using a strategic environmental assessment approach for the south Athabasca oil sands area). The plan will be developed in association with aboriginal communities, municipalities, industry stakeholders and the public to include:
- Landscape assessment encompassing current, cumulative and detailed information on land-use impact types and trends, as well as ecosystem service values within the LARP area. Total landscape values will also include known economic reserves of surface and sub-surface resources.
 - Scenario modeling considering current land use as the baseline case. Future development scenarios will be generated based on:
 - Current development trajectories and emerging technologies;
 - The LARP Vision and desired Regional Outcomes; and
 - Application of a range of possible policy instrument and management tools.
 - Landscape planning to achieve the most desirable scenario and required biodiversity targets. Plan implementation will guide future decision-making based on application of the most effective policy instruments, including zoning, standards and consideration of the potential role of conservation offsets.
 - These efforts will build on the success of voluntary integrated land management (ILM) approaches by industrial and commercial operators as a means of reducing the extent and duration of land disturbance and development footprint. This means that best available ILM practices will be utilized. Key ILM practices include:
 - Co-ordinated industry planning of major access corridors and associated development infrastructure on public land (camps, remote airstrips);
 - Progressive and timely reclamation of land not required for further in situ oil sands development; and
 - Timely restoration of linear disturbances.

- Locations and strategies for management of public motorized access, in consideration of access planning initiatives such as Moose Lake and Richardson Backcountry and the Lower Athabasca Regional Trail System Plan. (See Outcome 6 and Schedule E – Lower Athabasca Regional Trail System Plan for details.)
 - Strategies to minimize land disturbance in the **Athabasca River Corridor** north of Fort McMurray.
- e) Complete a **tailings management framework** to support effective management of tailings. This strategy will complement the existing Energy Resources Conservation Board Directive 074 to reduce the volume of fluid fine tailings present on oil sands facility sites.
- f) Implement the **progressive reclamation strategy** enhancing the suite of policies, strategies and reporting mechanisms used to drive progressive on-going reclamation of mining operations. The strategy includes an enhanced reclamation certification process, a transparent public reporting system for reclamation progress and a new progressive reclamation financial security program. This strategy will provide mechanisms to define, measure and report on the return of equivalent capability—the objective for reclamation—including the return of a suite of acceptable land uses, such as commercial forestry, wetlands, wildlife and biodiversity, traditional use, and recreation.

Indicators:

- Status of Alberta species, including species at risk;
- Area of land disturbance on public land;
- Status of biodiversity indicators;
- Area of land retained in native vegetation;
- Area of oil sands reclamation; and
- Volume of fluid fine tailings.

Outcome 4

Air and water are managed to support human and ecosystem needs

Air Quality

Objective:

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

Strategy:

- a) Implement the **Air Quality Management Framework for the Lower Athabasca Region**.

The ambient air quality limits and triggers in the framework are based on accepted Alberta ambient air quality objectives. 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 actions that may be required, such as the preparation of management plans (individual or collective), further modeling and/or monitoring, development and application of new performance standards and the use of best management practices. Taking action to manage air quality in the region will involve the provincial government and a number of parties, including industry, municipalities and others. 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.

The relevant legislation includes the *Environmental Protection and Enhancement Act*.

Indicators:

- Nitrogen dioxide (NO₂); and
- Sulphur dioxide (SO₂).

Limits:

- Based on existing Alberta Ambient Air Quality Objectives. (See Schedule A for details.)
- Apply at continuous air monitoring stations in the Lower Athabasca Region as reported through the Clean Air Strategic Alliance Data Warehouse.

Triggers:

- Calculated in relation to existing Alberta Ambient Air Quality Objectives. (See Schedule A for details.)
- Apply at continuous air monitoring stations in the Lower Athabasca Region as reported through the Clean Air Strategic Alliance Data Warehouse.

Regulatory Details Plan

Part 4 Air Quality

Designated Minister

21 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

22 In this Part,

- (a) “framework” means the document referred to in this regional plan as the Air Quality Management Framework for the Lower Athabasca Region as amended or replaced from time to time;
- (b) “limit” means the applicable limit specified in Table A-1 of the LARP Implementation Plan;
- (c) “person responsible” has the same meaning as defined in the *Environmental Protection and Enhancement Act*;
- (d) “trigger” means the applicable trigger specified in Tables A-1 and A-2 of the LARP Implementation Plan.

Designated Minister’s decision final and binding

23(1) The Designated Minister in the exercise of the Designated Minister’s powers and duties under this Part may determine

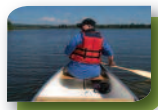
- (a) the measurements of substances of concern at monitoring stations established and maintained under a program referred to in section 24,
- (b) whether a trigger or limit has been exceeded for the purposes of this Part,
- (c) whether a trigger or limit exceeded in respect of one or more specific areas in the planning region is of concern in other areas of the planning region or the whole planning region, and
- (d) the duration of an exceedance of a trigger or limit determined by the Designated Minister.

(2) The Designated Minister’s determination is final and binding on the Crown, decision-makers, local government bodies, and, subject to section 15.1 of the Act, all other persons.

Programs to manage effects

24 In respect of the framework, the Designated Minister shall establish and maintain programs

- (a) managing ambient air quality limits and triggers for substances that in the opinion of the Designated Minister are indicators of the air quality effects of concern for the planning region,



Regulatory Details Plan

Part 4 Air Quality - cont'd

- (b) monitoring and evaluating the ambient air quality in the planning region, and
- (c) evaluating the effectiveness of the framework in meeting the air quality objective stated in the LARP Implementation Plan.

Notice respecting limits

25(1) In respect of one or more limits that, in the opinion of the Designated Minister, has been exceeded, the Designated Minister shall issue a notice specifying:

- (a) an 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 a direct or indirect effect on the limit or limits;
 - (b) the applicable limit or limits in respect of the activity or activities referred to in clause (a) that, in the opinion of the Designated Minister, has been exceeded;
 - (c) the relevant area of the planning region affected by 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-maker, decision-makers, local government body or local government bodies;
 - (g) action to be taken by affected decision-makers and affected local government bodies in response to the exceedance of the limit; and
 - (h) that no statutory consent in respect of a proposed activity referred to in clause (1)(a) shall be issued.
- (2)** All affected decision-makers and affected local government bodies referred to in clauses (1)(d) and (e) shall be served with the notice by personal service, registered mail, or fax.
- (3)** Upon receiving a notice referred to in subsection (1) a decision-maker or local government body is bound by the notice.
- (4)** A notice referred to in subsection (1) shall be publicly available.

Management response

26(1) If the Designated Minister determines that a trigger or limit has been exceeded, an appropriate official or officials in the Designated Minister's government department must initiate a management response consistent with the framework.

- (2)** A person responsible shall comply with the lawful directions of an official in respect of a management response referred to in subsection (1).
- (3)** 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.
- (4)** A report referred to in subsection (3) shall be publicly available in its entirety in electronic and hard copy upon request by a person and posted on the secretariat's website.

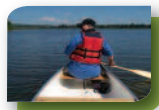
Regulatory Details Plan

Part 4 Air Quality - cont'd

Designated Minister's considerations

27 For greater clarification, in reaching an opinion under sections 25 and 26, the Designated Minister may consider such information as in the Designated Minister's opinion is material to

- (a) a particular activity or activities or type or class of activity or types or classes of activities,
- (b) the relevant area or relevant part of the area in which the activity is to occur,
- (c) the relevant area or relevant part of the area 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 24.



Surface Water Quality

Objective:

- Water quality in the Lower Athabasca River is managed so current and future water uses are protected.

Strategy:

- a) Implement the **Surface Water Quality Management Framework for the Lower Athabasca River**.

The surface water quality limits in the framework are based on provincially-used water quality guidelines. They were chosen to protect existing and future water uses (e.g., industrial, agricultural, recreational and esthetics, drinking water or protection of aquatic life).

If monitoring indicates a trigger or limit has been exceeded, there will be a regional management response. The framework describes the kinds of management actions that may be required, such as the preparation of management plans (individual or collective), further modeling or monitoring and the use of best management practices. Taking action to manage surface water quality in the region will involve the provincial government and a number of parties, including industry, municipalities and others. Finally, the framework establishes a commitment to ongoing monitoring, evaluation and reporting of surface water quality conditions and verification if triggers or limits are exceeded. This is described in more detail in the management framework.

Relevant legislation includes the *Environmental Protection and Enhancement Act* and the *Water Act*.

Indicators:

- Quality: Suite of indicators including 11 general and 28 metals. (See Schedule B for details.)

Limits:

- Quality: Established from existing provincially accepted water quality guidelines where applicable, further risk based limits to be developed. (See Schedule B for details.)
- Apply at Old Fort Long Term Monitoring Station.

Triggers:

- Quality: Based on statistical deviation from historical ambient concentrations. (See Schedule B for details.)
- Apply at Old Fort Long Term Monitoring Station.

Regulatory Details Plan

Part 5 Surface Water Quality

Designated Minister

28 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

29 In this Part,

- (a) “framework” means the document referred to in this regional plan as the Surface Water Quality Management Framework for the Lower Athabasca River as amended or replaced from time to time;
- (b) “limit” means the applicable limit specified in Tables B-1 and B-2 of the LARP Implementation Plan;
- (c) “Lower Athabasca River” means that portion of the Athabasca River commencing at the easternmost boundary of the Grand Rapids Wildland Provincial Park to the confluence of the Athabasca River with the Athabasca Delta;
- (d) “person responsible” has the same meaning as defined in the *Environmental Protection and Enhancement Act*;
- (e) “trigger” means the applicable trigger specified in Tables B-1 and B-2 of the LARP Implementation Plan;
- (f) “water” has the same meaning as defined in the *Water Act*.

Designated Minister’s decision final and binding

30(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 31,
- (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 Lower Athabasca River is of concern in other areas of the Athabasca River, or its tributaries or distributaries, or other areas of the planning region or the whole planning region, and
- (d) the duration of an exceedance of a trigger or limit determined by the Designated Minister.

(2) The Designated Minister’s determination is final and binding on the Crown, decision-makers, local government bodies, and, subject to section 15.1 of the Act, all other persons.



Regulatory Details Plan

Part 5 Surface Water Quality - cont'd

Programs to manage effects

31 In respect of the framework, the Designated Minister shall establish and maintain programs

- (a) managing water quality limits and triggers for substances that in the opinion of the Designated Minister are indicators of the surface water quality effects of concern for the Lower Athabasca River,
- (b) monitoring and evaluating the water quality in the Lower Athabasca River, and
- (c) evaluating the effectiveness of the framework in meeting the water quality objective for the Lower Athabasca River stated in the LARP Implementation Plan.

Notice respecting limits

32(1) In respect of one or more limits that, in the opinion of the Designated Minister, has been exceeded the Designated Minister shall issue a notice specifying:

- (a) an 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 a direct or indirect effect on the limit or limits;
- (b) the applicable limit or limits in respect of the activity or activities referred to in clause (a) that, in the opinion of the Designated Minister, has been exceeded;
- (c) the relevant area of the planning region affected by 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-maker, decision-makers, local government body, or local government bodies;
- (g) action to be taken by affected decision-makers and affected local government bodies in response to the exceedance of the limit; and
- (h) that no statutory consent in respect of a proposed activity referred to in clause (1)(a) shall be issued.

(2) All affected decision-makers and affected local government bodies referred to in clauses (1)(d) and (e) shall be served with the notice by personal service, registered mail, or fax.

(3) Upon receiving a notice referred to in subsection (1) a decision-maker or local government body is bound by the notice.

(4) A notice referred to in subsection (1) shall be publicly available.

Management response

33(1) If the Designated Minister determines that a trigger or limit has been exceeded, an appropriate official or officials in the Designated Minister's government department must initiate a management response consistent with the framework.

(2) A person responsible shall comply with the lawful directions of an official in respect of a management response referred to in subsection (1).

Regulatory Details Plan

Part 5 Surface Water Quality - cont'd

(3) 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.

(4) A report referred to in subsection (3) shall be publicly available in its entirety in electronic and hard copy upon request by a person and posted on the secretariat's website.

Designated Minister's considerations

34 For greater clarification, in reaching an opinion under sections 32 and 33, the Designated Minister may consider such information as in the Designated Minister's opinion is material to

- (a) a particular activity or activities or type or class of activity or types or classes of activities,
- (b) the relevant area or relevant part of the area in which the activity is to occur,
- (c) the relevant area or relevant part of the area 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 31.



Groundwater Quality and Quantity

Objectives:

- Groundwater quality is protected from contamination by maintaining conditions within the range of natural variability and not exceeding established limits.
- Groundwater resources continue to support human and ecosystem needs, and the integrity of the regional flow system is maintained.

Strategy:

- a) Complete and implement the **Groundwater Management Framework for the Lower Athabasca Region**.

The Groundwater Management Framework for the Lower Athabasca Region encompasses three areas: the north Athabasca oil sands, the south Athabasca oil sands and the Cold Lake-Beaver River areas.

A set of indicators has been chosen based on the nature of the aquifers and potential impacts of both mining and in situ operations. The framework includes interim triggers and provides for the future establishment of final triggers and limits. The information required to finalize triggers and limits will be collected through the establishment of a regional groundwater monitoring network and development of regional groundwater models.

While interim regional triggers have been developed, a management response will not be a mandatory requirement of the regional plan until there is better understanding of the current state of groundwater in the region and final triggers and limits have been established. Once these numbers are final however if monitoring indicates a trigger or limit has been exceeded, there will be a regional management response. The framework describes the kinds of management actions that may be required, such as the preparation of mitigation plans (individual or collective), further modeling or monitoring and the use of best management practices. Taking action to manage groundwater in the region will involve the provincial government and a number of parties, including industry, municipalities and others. Finally, the framework establishes a commitment to ongoing monitoring, evaluation and reporting of regional groundwater conditions, and verification if triggers or limits are exceeded. This is described in more detail in the management framework.

The framework also requires preparation of facility groundwater management plans by industrial operators to describe how site-specific management will contribute to the achievement of regional groundwater outcomes.

Relevant legislation includes the *Environmental Protection and Enhancement Act* and the *Water Act*.

Indicators:

- Quality: Suite of primary and secondary indicators for mining and in situ. (See Schedule C for details); and
- Quantity: Change in groundwater surface elevation (not yet established).

Interim Groundwater Quality Triggers:

- Based on statistical deviation from baseline concentrations, regional knowledge and professional judgment or provincially accepted groundwater quality guidelines where applicable. (See Schedule C for details.)



Regulatory Details Plan

Part 6 Groundwater

Designated Minister

35(1) 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* and the *Water Act* is the Designated Minister.

(2) If the Minister responsible for the *Environmental Protection and Enhancement Act* and the Minister responsible for the *Water Act* is not the same Minister, then those Ministers shall be jointly the Designated Minister, and a reference in this Part to the Designated Minister shall be deemed to be a reference to both of them.

Definitions

36 In this Part,

- (a) “framework” means the document referred to in this regional plan as the Groundwater Management Framework as amended or replaced from time to time;
- (b) “groundwater” has the same meaning as defined in the *Water Act*.

Programs to manage effects

37 In respect of the framework, the Designated Minister shall establish and maintain programs monitoring and evaluating the groundwater quantity and quality in the planning region.

Groundwater management plans

38(1) Subject to subsection (2), the Director for the purposes of section 70 of the *Environmental Protection and Enhancement Act* and the Director for the purposes of sections 42 and 54 of the *Water Act* may require the holder of an approval, preliminary certificate or licence in respect of groundwater under the *Water Act* or the *Environmental Protection and Enhancement Act* to establish groundwater management plans within the meaning of the framework.

(2) Subsection (1) does not apply to users of groundwater for household purposes or traditional agricultural users within the meaning of sections 20 and 23, respectively, of the *Water Act*.

Surface Water Quantity

Strategy:

- a) Complete an updated **surface water quantity management framework** for the Lower Athabasca River.

The Government of Alberta is committed to completing an update of the phase I Water Management Framework for the Lower Athabasca River. The current framework provides guidance for management of water withdrawals by the oil sands mining industry. This phase I management framework was approved by Alberta Environment and Water and the federal department of Fisheries and Oceans in 2007. Work is continuing to update this surface water quantity management framework.

Outcome 5:

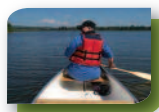
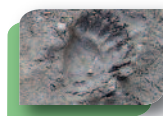
Infrastructure development supports economic and population growth

Objective:

- The region's infrastructure and land base available for development are planned to facilitate population and economic growth and efficient use.

Strategies:

- a) Use the **Comprehensive Regional Infrastructure Sustainability Plan (CRISP)** process to augment and facilitate the planning in the region where oil sands development will create rapid growth and significant development pressures.
 - Plan for a **Fort McMurray Urban Development Sub-region** to facilitate effective land-use planning, efficient infrastructure construction and timely land release and land developments as Fort McMurray continues to grow.
- b) 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 regions and jurisdictions.
- c) Utilize the minimum amount of land required for developments (new residential, commercial and industrial).
- d) Plan, design and locate future development in a manner that utilizes existing infrastructure and minimizes the need for new or expanded infrastructure.
- e) Identify critical economic linkages to markets including:
 - the Mackenzie Delta to connect with the Asia-Pacific markets;
 - North-south linking the Industrial Heartland and the Fort McMurray area;
 - North-south linking Fort McMurray and the Northwest Territories;



- North-south linking Fort McMurray and Lac La Biche; and
- East-west linking Fort McMurray to La Loche, Saskatchewan (east) and Red Earth Creek (west).

The rapid rate of growth in the Lower Athabasca Region is expected to continue. A proactive approach to planning for infrastructure and urban growth is needed to ensure the region is an attractive place to live and do business. Investment and the work on oil sands projects begin years in advance of production. This planning process should focus on anticipated investment and population growth.

The Athabasca CRISP, released in May 2011, projects what infrastructure may be needed based on incremental population growth and oil sands production levels to a maximum of six million barrels per day (the estimated amount that potentially could be reached by the year 2045).

Maintaining future opportunities for development of provincial and cross-border infrastructure will help make the region's economy innovative and competitive. Infrastructure, including pipeline corridors to connect the oil sands with new markets nationally and internationally, transportation and utility corridors and electricity transmission systems will ensure long-term optimization of the region's oil sands and sustain a diversity of existing and future economic activities in the Lower Athabasca Region and Alberta. A multi-use corridor system would be a competitive advantage and position Alberta as a trade gateway to grow new markets for Alberta goods and services.

It is recognized that additional work needs to be undertaken to determine transportation corridor and utility corridor plans linking the Athabasca and Cold Lake oil sands regions and Alberta's Industrial Heartland to minimize the environmental impact of individual lines and routes. By siting infrastructure needed to support development in an orderly, timely and environmentally sustainable manner, transportation corridors and utility corridors will help facilitate economic and community development.

Indicators:

- Oil sands projects: current, approved and pending;
- Regional population;
- Traffic counts;
- Cost of construction;
- Cost of living; and
- Rental affordability.

A multi-use corridor is a dedicated land area identified by the Government of Alberta for co-location of linear infrastructure that supports critical economic linkages to markets. These corridors may include:

- Public highways;
- Electric transmission;
- High speed rail and rail;
- Pipelines (i.e., oil, gas, bitumen, carbon dioxide);
- Water management;
- Telecommunications towers and underground fibre-optic cables; and
- Recreation trails.

Outcome 6:

The quality of life of residents is enhanced through increased opportunities for recreation and active living

Objective:

- Provide a wide range of recreation and tourism opportunities that meet the preferences of regional residents and visitors.

Strategies:

- a) Designate new **provincial recreation areas** to address growing demand for recreational opportunities in the region and provide a secure land base to support tourism development (e.g., serviced and un-serviced campgrounds, day-use areas, boat launches, motorized staging areas, designated motorized and non-motorized trails, private sector lodges and developments). (See Schedule G – LARP Digital Map and Schedule F – LARP Land Uses.)
- b) Create new **public land areas for recreation and tourism** in the region that contain unique features, scenery or settings to address the growing demand for recreational opportunities and provide an attractive land base for tourism investment. (See Schedule G – LARP Digital Map and Schedule F – LARP Land Uses.)

Land-use activities in the existing provincial parks system will be managed in accordance with relevant legislation.



Regulatory Details Plan

Part 7 Recreation and Tourism

Definitions

39 In this Part,

- (a) “provincial recreation area” means lands identified as a provincial recreation area and labelled “A” through “I” on the LARP Digital Map;
- (b) “public land area for recreation and tourism” means lands identified as a public land area for recreation and tourism and labelled “1” through “5” on the LARP Digital Map;
- (c) “water” means water as defined in the *Water Act*.

Designated Minister for public land areas for recreation and tourism

40 For the purposes of this Part in respect of public land areas for recreation and tourism, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Public Lands Act* is the Designated Minister.

Designated Minister in respect of provincial recreation areas

41 For the purposes of this Part in respect of 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.

Recreation and tourism objectives

42 In respect of public land areas for recreation and tourism and provincial recreation areas, the Designated Minister may take whatever steps that in the opinion of the Designated Minister are desirable for achieving the recreation and tourism objectives of the LARP Strategic Plan and implementing Schedule “F” to the LARP Implementation Plan.

Renewal of certain statutory consents in provincial recreation areas

43 Subject to any other law, a statutory consent may be renewed in a provincial recreation area if the statutory consent is, at the effective date of renewal, in good standing under the provisions of the enactment or enactments applicable to the statutory consent, and

- (a) if the statutory consent is consistent with this regional plan; or
- (b) if the statutory consent is inconsistent with or non-compliant with this regional plan, within the meaning of section 11(2), but
 - (i) is an agreement under the *Mines and Minerals Act* or a disposition under the *Public Lands Act* that is valid and subsisting at the time this regional plan comes into force, or
 - (ii) if it is not an agreement or disposition referred to in subclause (i), but is, within the meaning of section 11(4), incidental to an agreement or disposition referred to in subclause (i).

Regulatory Details Plan

Part 7 Recreation and Tourism - cont'd

Access to water

44 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 recreation area identified as a provincial recreation area and labelled “A” through “I” on the LARP Digital Map, the Designated Minister shall permit access to the water through the provincial recreation area to the extent necessary for the holder to comply with the statutory consent.

Programs to manage objectives

45 In respect of the land use in public land areas for recreation and tourism and provincial recreation areas, the Designated Minister shall establish and maintain programs evaluating the effectiveness of the public land area for recreation and tourism or provincial recreation area in meeting the recreation and tourism objectives in the LARP Strategic Plan and LARP Implementation Plan.



- c) Develop the **regional parks plan for the Lower Athabasca Region** to direct the planning and management of new and existing parks within the provincial parks system.
- d) In collaboration with aboriginal and other communities, stakeholders and partners, co-ordinate the development of the **Lower Athabasca Regional Trail System Plan** to designate trails, routes and areas which link communities, destinations and other jurisdictions with the region's parks, recreation features and open spaces. (See Schedule E for plan details.)
- e) **Collect regional data** in the form of a recreation and tourism resource inventory that includes the completion of a scenic resource assessment inventory and a regional recreational demand and satisfaction survey. Data collected will inform recreation and tourism planning and prioritize product, service and infrastructure development.

A growing, prosperous and mobile population is changing the type of experiences people are looking for and putting more pressure on the land. More people are seeking outdoor recreational opportunities such as camping, picnic and day-use areas or trail-based recreation. In addition to identifying Lakeland Country as an iconic tourism destination, there is a significant need for diverse recreation opportunities close to urban centres such as Fort McMurray, Cold Lake, Bonnyville and Lac La Biche. Ongoing monitoring of regional recreation needs (i.e., regional recreation demand and satisfaction survey) is required to ensure all partners can better respond to local needs.

Indicators:

- Satisfaction with recreational opportunities within the region;
- Area per capita of parks or designated open space for recreation (provincial and municipal); and
- Recreation infrastructure, such as number of campsites and kilometers of designated trails.

Outcome 7: 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:

- a) 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.

- b) Engage aboriginal communities in the development of the **Lower Athabasca Regional Trail System Plan** (See Schedule E for details.)
- c) Engage aboriginal communities in the development of a **surface water quantity management framework for the Lower Athabasca River**. (See Outcome 4 for details.)
- d) Engage aboriginal communities on initiatives to support **tourism development** including:
 - Tourism opportunity assessments for the Quarry of the Ancestors, Bitumount and Fort Chipewyan. (See Outcome 1 for details);
 - 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 authentic products while promoting and protecting natural and cultural resources and heritage lifestyles;
 - Opportunities to balance tourism product expansion with the needs of communities through business opportunities (e.g., potential opportunity to focus on revenue generation by promoting small and medium sized businesses, and developing careers and education thereby increasing employment opportunities); and
 - The development of partnerships based on the sensitive provision of authentic traditional tourism products, experiences, stories and imaginative product diversification.
- e) Invite First Nations expressing an interest in the Richardson Backcountry to be involved in a sub-regional initiative called the **First Nations-Richardson Backcountry Stewardship Initiative** (Richardson Initiative). Within the Richardson area, this initiative will consider:
 - Impact to treaty rights to hunt, fish and trap for food;
 - Fish and wildlife management, access management and economic/business opportunities; and
 - Management of new wildland provincial parks and public land areas for recreation and tourism.
- f) In developing a **biodiversity management framework and a landscape management plan**, the Government of Alberta will work with First Nations to consider:
 - How First Nations' exercise of constitutionally protected rights to hunt, fish and trap for food can continue to occur within reasonable proximity of First Nations' main population centres; and
 - How to minimize land disturbance in the Athabasca River corridor north of Fort McMurray.



Indicators:

- Participation rate of First Nations in the Richardson Initiative; and
- 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 consultations continues to be reviewed prior to the decision.

Monitoring, Evaluation and Reporting

Monitoring, evaluation and reporting are key activities for the success of the Lower Athabasca 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 (i.e., to determine if land-use strategies and actions will fulfill the regional plans' objectives and outcomes).

Monitoring

On an ongoing basis, government will systematically collect and store data for indicators about the progress of achievement of the Lower Athabasca Regional Plan 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 the data trends showing changes occurring in the region.

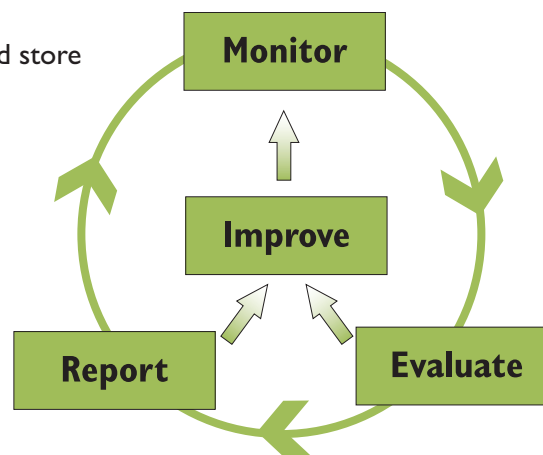
Evaluation

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 assure 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

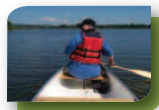
Government will use various mechanisms to formally communicate on regional plan progress to the public, including the release of reports on an annual basis that speak directly to the plan, as well as ministry communications that address more specific aspects of the plan. Government websites like the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



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 balance desired between economic, environmental and social outcomes in Lower Athabasca.



Regulatory Details Plan

Part 8 Monitoring and Reporting

Definitions

46 In this Part,

- (a) “lead ministry” means the government department identified in the columns labelled “Lead Ministry” in Tables 1 and 2 of the LARP 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 LARP Implementation Plan;
- (c) “regional outcome” means the outcome identified in the columns labelled “Provincial and Regional Outcomes” in Tables 1 and 2 of the LARP Implementation Plan;
- (d) “supporting indicator” means the supporting indicator identified in the columns labelled “Supporting Indicators” in Table 1 of the LARP Implementation Plan.

Designated Minister

47(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 LARP 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 a 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 Tables 1 and 2 of the LARP Implementation Plan.

Programs to manage objectives

48 In respect of each supporting indicator and strategy for which the Designated Minister is responsible, as identified in Tables 1 and 2 of the LARP Implementation Plan, the Designated Minister shall establish and maintain programs monitoring and evaluating

- (a) the status of each supporting indicator, and
- (b) the effectiveness of each strategy,

in achieving the regional outcome identified in the corresponding row in those Tables.

Table 1
Regional Outcomes and Supporting Indicators

Provincial and Regional Outcomes	Supporting Indicators	Lead Ministry
Healthy economy supported by our land and natural resources		
1. The economic potential of the oil sands resource is optimized	Labour force by sector Human Services Provincial royalties Energy Personal income Treasury Board & Finance Oil sands production rate Energy Total oil sands investment Treasury Board and Finance/ Enterprise & Advanced Education Cost of production Energy	
2. The region's economy is diversified	Sectoral GDP Treasury Board & Finance Sectoral employment..... Treasury Board & Finance Area of public land actively managed for Environment and Sustainable enhanced forestry Resource Development Area of land disturbance on productive land..... Environment and Sustainable base on public land in the region Resource Development Fragmentation and conversion of agricultural Agriculture and Rural Development land to non-agricultural land-uses Tourism visitation Tourism, Parks and Recreation Tourism visitor expenditures..... Tourism, Parks and Recreation Tourism occupancy Tourism, Parks and Recreation	
Healthy ecosystems and environment		
3. Landscapes are managed to maintain ecosystem function and biodiversity	Status of Alberta species, including species Environment and Sustainable at risk Resource Development Area of land disturbance on public land..... Environment and Sustainable Resource Development Status of biodiversity indicators..... Environment and Sustainable Resource Development Area of land retained in native vegetation..... Environment and Sustainable Resource Development Area of oil sands reclamation Environment and Sustainable Resource Development Volume of fluid fine tailings Environment and Sustainable Resource Development	
4. Air and water are managed to support human and ecosystem needs	See Schedules C-E.....	Environment and Sustainable Resource Development



Provincial and Regional Outcomes	Supporting Indicators	Lead Ministry
People-friendly communities with ample recreational and cultural opportunities		
5. Infrastructure development supports economic and population growth	Oil sands projects: current/approved/pending Regional population Traffic counts Cost of construction Cost of living Rental affordability	Energy Treasury Board & Finance Transportation Infrastructure Treasury Board & Finance Municipal Affairs
6. The quality of life of residents is enhanced through increased opportunities for recreation and active living	Satisfaction with recreational opportunities Area per capita of parks or designated open space for recreation (provincial and municipal) Recreation infrastructure such as number of campsites, kilometres of designated trails	Tourism, Parks and Recreation Tourism, Parks and Recreation Tourism, Parks and Recreation
7. Inclusion of aboriginal peoples in land-use planning	Participation rate of First Nations in the Richardson Initiative 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 consultations continues to be reviewed prior to the decision	Environment and Sustainable Resource Development/Energy/Tourism, Parks and Recreation/Aboriginal Relations Environment and Sustainable Resource Development/Energy/Tourism, Parks and Recreation/Aboriginal Relations

Table 2
Regional Outcomes and Strategies

Provincial and Regional Outcomes	Strategies	Lead Ministry	Timeline (year end)
Healthy economy supported by our land and natural resources			
1. The economic potential of the oil sands resource is optimized	Alberta Provincial Energy Strategy.....	Energy	Ongoing
	Responsible Actions: A Plan for..... Alberta's Oil Sands	Energy	Ongoing
	Improved regulatory process.....	Energy/Environment Sustainable Resource Development	Ongoing
	Sub-regional plan using a strategic..... environmental assessment approach for the south Athabasca oil sands area	Environment Sustainable Resource Development	2013
	Connecting the Dots: Aboriginal Workforce and Economic Development in Alberta	Human Services	Ongoing
	2. The region's economy is diversified	Prevent future shortfalls in timber	Environment and Sustainable Resource Development
Wildfire management planning..... initiatives		Environment and Sustainable Resource Development	Ongoing
The Alberta Forest Products		Environment and Sustainable Resource Development	Ongoing
Roadmap to 2020		Tourism, Parks and Recreation	2015
Lakeland Country Destination		Tourism, Parks and Recreation	2015
Development Strategy and Tourism Opportunity Plan		Tourism, Parks and Recreation	Ongoing
Enhance and expand the supply		Tourism, Parks and Recreation	Ongoing
of tourism products and infrastructure Tourism development nodes		Tourism, Parks and Recreation	2015
Tourism opportunity assessments..... for Quarry of the Ancestors, Bitumount and Fort Chipewyan		Tourism, Parks and Recreation/Culture	2014
Scenic Byways Network		Tourism, Parks and Recreation	2015
Clarity in rules for physical access..... to energy, mineral and coal resources	Environment and Sustainable Resource Development/ Energy	Ongoing	
Promote new investment in energy, mineral and coal resource development	Energy	Ongoing	



Provincial and Regional Outcomes	Strategies	Lead Ministry	Timeline (year end)
Healthy ecosystems and environment			
3. Landscapes are managed to maintain ecosystem function and biodiversity	Create new conservation areas on provincial Crown land	Environment and Sustainable Resource Development/ Tourism, Parks and Recreation	As soon as practicable
	Manage existing conserved lands.....	Environment and Sustainable Resource Development/ Tourism, Parks and Recreation	Ongoing
	Develop a biodiversity management framework	Environment and Sustainable Resource Development	2013
	Develop a landscape management..... plan for public lands in the Green Area	Environment and Sustainable Resource Development	2013
	Complete a tailings management..... framework	Environment and Sustainable Resource Development	Ongoing
	Implement the progressive..... reclamation strategy	Environment and Sustainable Resource Development	Ongoing
	4. Air and water are managed to support human and ecosystem needs	Implement the Air Quality..... Management Framework for the Lower Athabasca Region	Environment and Sustainable Resource Development
Implement the Surface Water Quality Management Framework for the Lower Athabasca River		Environment and Sustainable Resource Development	Ongoing
Complete and implement the..... Groundwater Management Framework for the Lower Athabasca Region		Environment and Sustainable Resource Development	2014
Complete an updated surface water quantity management framework for the Lower Athabasca River		Environment and Sustainable Resource Development	2012
People-friendly communities with ample recreational and cultural opportunities			
5. Infrastructure development supports economic and population growth	Use CRISP to augment and facilitate planning where oil sands development causes growth pressures	Energy	Ongoing
	Ensure opportunities for future routes and siting for pipeline gateways, transmission corridors utility and electrical transmission corridors are maintained	Energy/Transportation	Ongoing
	Critical economic linkages to markets	Transportation/Enterprise & Advanced Education	Ongoing

Provincial and Regional Outcomes	Strategies	Lead Ministry	Timeline (year end)
People-friendly communities with ample recreational and cultural opportunities - cont'd			
6. The quality of life of residents is enhanced through increased opportunities for recreation and active living	Designate new provincial..... recreation areas to address growing demand for recreational opportunities	Tourism, Parks and Recreation	As soon as practicable
	Create public land areas for..... recreation and tourism that contain unique features or settings	Tourism, Parks and Recreation/Environment and Sustainable Resource Development	As soon as practicable
	Develop the regional parks plan for..... the Lower Athabasca	Tourism, Parks and Recreation	2013
	Develop the Lower Athabasca..... Regional Trail System Plan	Tourism, Parks and Recreation/Environment and Sustainable Resource Development	Ongoing
	Collect regional data including..... completion of recreation and tourism inventory, a scenic resource assessment inventory and a regional recreational demand and satisfaction survey.	Tourism, Parks and Recreation	Ongoing
7. Inclusion of aboriginal peoples in land-use planning	Continue to consult with aboriginal peoples in a meaningful way when government decisions may adversely affect the continued exercise of their constitutionally protected rights.	Environment and Sustainable Resource Development/ Energy/ Tourism, Parks and Recreation/Aboriginal Relations	Ongoing
	Invite First Nations expressing an interest in the Richardson Backcountry to be involved in a sub-regional initiative called the First Nations-Richardson Backcountry Stewardship Initiative (Richardson Initiative)	Environment and Sustainable Resource Development/ Energy/Tourism, Parks and Recreation/Aboriginal Relations	Ongoing



Schedule A: Air Quality Management Framework Limits and Triggers

Table A-1. Annual Ambient Air Quality Triggers and Limits for NO₂ and SO₂

Description	NO ₂	SO ₂
Limit ¹	45 µg/m ³ (24 ppb) ¹	20 µg/m ³ (8 ppb) ¹
Trigger for Level 3	30 µg/m ³ (16 ppb)	13 µg/m ³ (5 ppb)
Trigger for Level 2	15 µg/m ³ (8 ppb)	8 µg/m ³ (3 ppb)

Triggers and limits apply at continuous air monitoring stations as reported through the Clean Air Strategic Alliance Data Warehouse.

¹ Annual air quality limits are based upon Alberta Ambient Air Quality Objectives.

Table A-2. Ambient Air Quality Triggers Based on 99th Percentile of the Hourly Data Over a Year

Trigger	NO ₂	SO ₂
Trigger for Level 4	176 µg/m ³ (92 ppb)	94 µg/m ³ (36 ppb)
Trigger for Level 3	118 µg/m ³ (62 ppb)	63 µg/m ³ (24 ppb)
Trigger for Level 2	57 µg/m ³ (30 ppb)	31 µg/m ³ (12 ppb)

Triggers apply at continuous air monitoring stations as reported through the Clean Air Strategic Alliance Data Warehouse.

Schedule B: Surface Water Quality Management Framework Limits and Triggers

Table B-1. Ambient Surface Water Quality Triggers and Limits for the Athabasca River at Old Fort - General Indicators

All values are in mg/L.

General Indicator	Surface Water Quality Triggers Mean	Surface Water Quality Triggers Peak	Surface Water Quality Limit
Calcium (Ca ²⁺)	34.7	48.9	1,000 ^b
Chloride (Cl ⁻)	20.2	45.0	100 ^b
Magnesium (Mg ⁺)	9.5	13.7	-
Potassium (K ⁺)	1.4	2.1	-
Sodium (Na ⁺)	21.5	43.7	200 ^c
Sulphate (SO ₄ ⁻)	26.7	41.4	500 ^c
Total Dissolved Phosphorus (TDP)	0.016	0.032	-
Total Phosphorus (TP)	0.074	0.261	-
Nitrate (NO ₃ -N)	0.092	0.264	2.935 ^a
Total Ammonia (NH ₃ +4-N)	0.05	0.12	Varies with pH and temperature ^{d,1}
Total Nitrogen (TN)	0.597	1.041	-

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses

c The Guidelines for Canadian Drinking Water Quality

d U.S. EPA Aquatic Life Criteria

1 Fish early life stages present:

chronic criterion = $((0.0577/(1 + 10^{7.688-pH})) + (2.487/(1 + 10^{pH-7.688})))$
 $\times \text{MIN}(2.85, 1.45 \cdot 10^{0.028 \cdot (25-T)})$. See Table A3 in the framework for computed temperature and pH-dependent total ammonia values and Table A4 for temperature and pH values from the Old Fort monitoring station.



Table B-2. Ambient Surface Water Quality Triggers and Limits for the Athabasca River at Old Fort - Metal Indicators

All values are in µg/L; D=dissolved, T=total.

Metal Indicator	Surface Water Quality Triggers		Surface Water Quality Limit
	Mean	Peak	
Aluminum D	16	49	-
Aluminum T	1533	6454	-
Antimony D	0.107	0.202	-
Antimony T	0.148	0.388	6 ^{c,1,2}
Arsenic D	0.5	0.7	-
Arsenic T	1.1	2.5	5 ^a
Barium D	52.6	73.7	-
Barium T	79.3	147.6	1,000 ^c
Beryllium T	0.077	0.269	100 ^{b,3}
Bismuth T	0.0172	0.0564	-
Boron D	26	40	-
Boron T	48	69	500 ^b
Cadmium D	0.0997	0.5150	-
Cadmium T	0.3	1.2	-
Chromium D	0.41	0.65	-
Chromium T	3	8	50 ^c
Cobalt D	0.07	0.11	-
Cobalt T	0.8	2.2	50 ^b
Copper D	1.6	3.6	-
Copper T	3.1	7.2	-
Iron D	185	372	-
Iron T	1899	5821	-
Lead D	0.56	0.56	-
Lead T	3.3	7.0	-
Lithium D	6	9	-
Lithium T	9	12	2,500 ^b
Manganese D	12	36	-
Manganese T	65	141	-
Mercury T	0.0051	0.0159	-
Molybdenum D	0.7	1.2	-
Molybdenum T	0.9	1.6	10 ^b

Metal Indicator	Surface Water Quality Triggers Mean	Surface Water Quality Triggers Peak	Surface Water Quality Limit
Nickel D	1.6	4.7	-
Nickel T	3.4	8.2	Varies with hardness ^{d,4}
Selenium D	0.229	0.409	-
Selenium T	0.333	0.581	1 ^a
Silver T	0.0243	0.0677	0.1 ^a
Strontium D	215	361	-
Strontium T	225	361	-
Thallium D	0.0238	0.1137	-
Thallium T	0.0546	0.1751	0.8 ^a
Thorium D	0.0284	0.0942	-
Thorium T	0.35	1.44	-
Titanium D	2	7	-
Titanium T	30	104	-
Uranium D	0.313	0.381	-
Uranium T	0.4	0.7	10 ^{b,5}
Vanadium D	0.450	0.698	-
Vanadium T	4	16	100 ^b
Zinc D	4.5	12.4	-
Zinc T	12.3	25.6	-

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses

c The Guidelines for Canadian Drinking Water Quality

d U.S. EPA Aquatic Life Criteria

1 Developed as an interim maximum acceptable concentration

2 Faucets should be thoroughly flushed before water is taken for consumption or analysis

3 Livestock watering guideline is interim

4 Total nickel CCC = $e^{0.846(\ln \text{ hardness})+0.0584}$ µg/L, where hardness is measured in mg/L CaCO₃. See Table A4 in the framework for alkalinity (CaCO₃) values from the Old Fort Monitoring Station.

5 Interim guideline



Schedule C: Groundwater Management Framework Interim Quality Triggers

Table C-1. Interim Regional Groundwater Quality Triggers for the North Athabasca Oil Sands Area

Interval	TDS ^{1,3}	Na ^{1,4}	Cl ^{1,4}	SO ₄ ¹	TAN ^{1,3}	As ¹	Si ³	NA _s ^{1,3}
Surficial deposits	600 ¹	50 ¹	20 ¹	50	1 ¹	0.003	10	2 ¹
Buried channels	1,000 ¹	150 ¹	50 ¹	250	1 ³	0.003	10	3 ³
Basal McMurray AMU1	1,000 ³	200 ⁴	250 ⁴	400	2 ³	0.003	10	5 ¹
Basal McMurray AMU2	3,700 ³	1,000 ¹	1,100 ¹	400	2 ³	0.003	10	20 ¹

Table C-2. Interim Regional Groundwater Quality Triggers for the South Athabasca Oil Sands Area

Interval	Temperature Change ³	TDS ³	Cl ³	NO ₃ ³	As ¹	Si ³	B ³	BTEX ³	Phenols ³
Surficial deposits	5°C	600	50	0.05	0.003	10	0.2	<10% DF	0.005
Buried channels	2°C	1,000	100	0.01	0.003	10	0.4	<10% DF	0.005
Grand Rapids Formation	2°C	2,000	1,000	0.01	0.003	10	1.0	<10% DF	0.010
Clearwater Formation	2°C	3,500	1,000	0.01	0.003	10	1.5	<10% DF	0.010
McMurray Formation	2°C	3,500	1,500	0.01	0.003	10	2.0	<10% DF	0.010

Note: the Grand Rapids, Clearwater and McMurray Aquifers are saline in some of the south Athabasca oil sands area.

Table C-3. Interim Regional Groundwater Quality Triggers for the Cold Lake-Beaver River Area

Interval	Temperature Change ³	TDS ⁴	Cl ²	NO ₃ as N ²	TAN ³	As ⁴	Phenols ^{2,3}	PHC FI ^{2,3}
Sand River Formation	2°C	500	25	2.0	1	0.010	0.009 ²	0.2 ²
Ethel Lake Formation	2°C	500	25	0.5	1	0.010	0.009 ³	0.2 ³
Bonnyville Formation Sand I	2°C	500	125	0.2	1	0.010	0.009 ²	0.4 ²
Muriel Lake Formation	2°C	500	125	0.2	1	0.010	0.009 ²	0.4 ²
Empress Formation Unit 3	2°C	500	200	0.1	1	0.010	0.006 ²	0.4 ²
Empress Formation Unit 1	2°C	500	100	0.1	1	0.010	0.004 ²	0.4 ²

The following information applies to tables C-1, C-2 and C-3. Values are interim in nature and subject to refinement based on results generated by regional groundwater monitoring.

Concentrations are shown in mg/L.

1 Value represents the 75th percentile of data from the existing database for each identified interval.

2 Value represents the 95th percentile of data from the existing database for each identified interval.

3 Values selected based on regional knowledge and professional judgment.

4 Value is from the Guidelines for Canadian Drinking Water Quality (Health Canada 2010).

AMU = aquifer management unit

TDS = total dissolved solids

Na = sodium

Cl = chloride

SO₄ = sulphate

NO₃ = nitrate

N = nitrogen

TAN = total ammonia nitrogen

As = arsenic

Si = silica

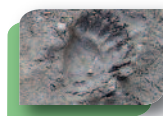
B = boron

NAs = naphthenic acids

BTEX = benzene, toluene, ethylbenzene and total xylenes

PHC FI = petroleum hydrocarbons (fraction I)

DF = detection frequency



Schedule D: Lakeland Country Destination Development Strategy and Tourism Opportunity Plan

Lakeland Country will be developed as a provincial iconic tourism destination to:

- Diversify the regional and local economy;
- Increase tourism visitation, length of stay, visitor expenditures and enhance recreational opportunities;
- Offer a full range of recreation and tourism settings and activities with a particular focus on the water-based features that are unique in Alberta, and the rich cultural and heritage resources;
- Provide an attractive tourism destination for local, provincial, national and international visitors;
- Support hunting, fishing and trapping (including by aboriginal peoples). Hunting includes commercial guiding and outfitting operations where wildlife species management plans provide an allocation for that use;
- Protect and maintain private property rights;
- Honour existing direction regarding statutory consents and tenures on public lands; and
- Provide for the continued issuance of new statutory consents and tenures on public lands.

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

The purpose of a tourism destination development strategy is to focus regional development resources on enhancing tourism products and services in iconic experience areas and implement strategies that develop Lakeland Country's destinations in collaboration with partners. Specific goals are to:

- Identify and provide direction to enhance and sustain a quality land base to support tourism development;
- Identify significant recreation and tourism features, settings and scenery on public lands and ensure impacts to these features, settings and scenery are minimized;
- Identify and prioritize significant attractions and experiences;
- Identify the need for new investment in infrastructure that supports the ongoing development of tourism;
- Identify tourism product development opportunities for the public, private and not-for-profit sectors;
- Research and identify new trends in recreation and tourism activities; and

- Identify strategies to ensure tourism development is sustainable and meets any regional or area-specific environmental thresholds.

The purpose of a tourism opportunity plan is to provide direction for the sustainable development of tourism products and services in Lakeland Country over the next ten years to 2022, and in consideration of other economic and social interests and values in the area. It will:

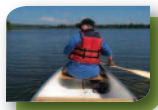
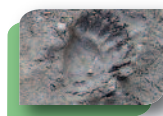
- Identify tourism product development priorities for the public, private and not-for-profit sectors;
- Identify new and enhance existing tourism products that meet future visitor expectations and demands;
- Support and enhance historic and current recreation and tourism activities while identifying new activities appropriate to the region;
- Identify new investment opportunities to infrastructure that supports the ongoing development of tourism;
- Provide relevant research based information on tourism supply and demand;
- Provide an agreed focus and mechanisms for engagement with the tourism industry, infrastructure providers and private investors;
- Identify a destination brand and establish a marketing plan for the destination; and
- Provide a detailed implementation action plan, funding priorities and funding strategies.

Both the strategy and the plan will be developed as an *Alberta Land Stewardship Act* issue-specific plan (ALSA sec 10) and will be led by Tourism, Parks and Recreation, with significant consultation and engagement with other ministries, aboriginal peoples, local governments, stakeholders and the public.

Schedule E: Lower Athabasca Regional Trail System Plan

Tourism, Parks and Recreation and Sustainable Resource Development will collaborate with and engage aboriginal peoples, municipal governments, stakeholders and the public to 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, open spaces and recreation and tourism management areas;
- Identify and designate 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 Alberta Recreation Corridor and Trails Classification 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 trails, user-created travel routes and areas;
- The gathering and analysis of environmental, resource, land use, aboriginal and other social data and land-use commitments;
- The development, assessment and consultation on 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 LARP, their consistency with other provisions in the LARP and existing land-use commitments;
- In accordance with the Alberta Recreation Corridor and Trails Classification 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 the regional trail system and where reclamation requirements may be deferred and/or amended to reflect their contribution to the regional trail system.

When assessing trail system design scenarios, the following criteria shall be considered in decisions to designate the regional trail system:

- Quality of the recreational experience;
- Sensitivity of—and risks of—unacceptable disturbance to soil, vegetation, watershed, wildlife, wildlife habitat and other forest resources;
- Historic resources;
- Existing recreational uses;
- Conflicts between motorized and non-motorized recreational activities;
- Conflicts and compatibility between recreation, industrial and other land-use activities including resource development;
- Public safety;
- Net benefit to the community;
- Identification of a trail operator;
- Linkages to a larger provincial trail network and other nearby routes;

- Public support for specific trails;
- Land tenure of trail routing; and
- Development timelines.



Schedule F: LARP Land Uses

Existing Conservation Areas

Area Name	Area Size (ha)	Per Cent of the Region (9,321,247 ha)	Legal Designation	Permitted-Activities (√ = permitted, X = not permitted)							
				Petroleum and Natural Gas (Note 1)	Oil Sands, Metallic and Industrial Minerals and Coal (Note 2)	Surface Materials (Note 3)	Forestry	Grazing (Note 5)	Motorized Recreation on Designated Routes Only	Hunting, Fishing, Trapping (including by aboriginal peoples) (Note 6)	Multi-use Corridors (Note 7)
La Butte Creek	18,147	0.19	Wildland Provincial Park	X	X	X	X	X	√	√	X
Colin-Cornall Lakes	70,428	0.76	Wildland Provincial Park	X	X	X	X	X	√	√	X
Fidler-Greywillow	6,521	0.07	Wildland Provincial Park	X	X	X	X	X	√	√	X
Maybelle River	15,308	0.16	Wildland Provincial Park	X	X	X	X	X	√	√	X
Richardson Dunes	32,033	0.34	Wildland Provincial Park	X	X	X	X	X	√	√	X
Birch Mountains	144,505	1.55	Wildland Provincial Park	X	X	X	X	X	Snow vehicle on designated trails	√	X
Marguerite River	196,302	2.11	Wildland Provincial Park	X	X	X	X	X	√	√	X
Whitemud Falls	3,848	0.04	Wildland Provincial Park	X	X	X	X	X	√	√	X
Gipsy Lake	35,766	0.38	Wildland Provincial Park	X	X	X	X	X	√	√	X
Stony Mountain	13,326	0.14	Wildland Provincial Park	X	X	X	X	X	√	√	X
Grand Rapids	26,332	0.28	Wildland Provincial Park	X	X	X	X	X	√	√	X
Athabasca Dunes	3,770	0.04	Ecological Reserve	X	X	X	X	X	X	X	X
Crow Lake	938	0.01	Ecological Reserve	X	X	X	X	X	X	X	X
Egg Island	0.36	0.00	Ecological Reserve	X	X	X	X	X	X	X	X
Whitemud Falls	865	0.01	Ecological Reserve	X	X	X	X	X	X	X	X
Total	568,089	6.09									

New Conservation Areas (Note 8)

Area	Area Name	Area Size (ha)	Per Cent of the Region (9,321,247 ha)	Legal Designation	Permitted-Activities							
					Petroleum and Natural Gas (Note 1)	Oil Sands, Metallic and Industrial Minerals and Coal (Note 2)	Surface Materials (Note 3)	Forestry	Grazing (Note 5)	Motorized Recreation on Designated Routes Only	Hunting, Fishing, Trapping (including by aboriginal peoples) (Note 6)	Multi-use Corridors (Note 7)
1	Kazan Wildland Park	570,955	6.13	Wildland Provincial Park	X	X	X	Wildfire/insect and disease management only	✓	✓	✓	✓
2	Richardson Wildland Park	265,825	2.85	Wildland Provincial Park	X	X	X	Wildfire/insect and disease management only	✓	✓	✓	✓
3	Gipsy-Gordon Wildland Park	158,542	1.70	Wildland Provincial Park	X	X	X	Wildfire/insect and disease management only	✓	✓	✓	✓
4.	Birch Mountains Wildland Park (expansion)	2,704	0.03	Wildland Provincial Park	X	X	X	Wildfire/insect and disease management only	✓	✓	✓	✓
5	Dillon River Conservation Area	191,544	2.05	Wildland Provincial Park	X	X	X	Wildfire/insect and disease management only	✓	✓	✓	✓
6	Birch River Conservation Area	331,832	3.56	Public Land Use Zone	X	X	X	Ecosystem forestry (Note 4)	✓	✓	✓	✓
Total		1,521,402	16.32									

Existing Provincial Parks for Recreation (Provincial Parks)

Area Name	Area Size (ha)	Per Cent of the Region (9,321,247 ha)	Legal Designation	Permitted Activities							
				Petroleum and Natural Gas (Note 1)	Oil Sands, Metallic and Industrial Minerals and Coal (Note 2)	Surface Materials (Note 3)	Forestry	Grazing (Note 5)	Motorized Recreation	Hunting, Fishing, Trapping (including by aboriginal peoples) (Note 6)	Multi-use Corridors (Note 7)
Lakeland	59,030	0.63	Provincial Park and Provincial Recreation Area	X	X	X	X	√	On designated trails only	√ (in provincial recreation area on designated trails)	X
Sir Winston Churchill	662	0.01	Provincial Park	X	X	X	X	√	X	X	X
Cold Lake	5,849	0.06	Provincial Park	X	X	X	X	√	X	X	X
Moose Lake	734	0.01	Provincial Park	X	X	X	X	√	X	X	X
Gregoire Lake	735	0.01	Provincial Park	X	X	X	X	√	X	X	X
Crow Lake	696	0.01	Provincial Park	X	X	X	X	√	X	X	X
Garner Orchid Fen	166	0.002	Natural Area	X	X	X	X	√	√	√	√
La Saline	292	0.003	Natural Area	X	X	X	X	√	√	√	√
Total	68,164	0.73									

New Provincial Recreation Areas

Area	Area Name	Area Size (ha)	Per Cent of the Region (9,321,247 ha)	Legal Designation	Permitted-Activities							
					Petroleum and Natural Gas (Note 1)	Oil Sands, Metallic and Industrial Minerals and Coal (Note 2)	Surface Materials (Note 3)	Forestry	Grazing (Note 5)	Motorized Recreation on Designated Routes Only	Hunting, Fishing, Trapping (including by aboriginal peoples) (Note 6)	Multi-use Corridors (Note 7)
A	Slave River Rapids	8,532	0.09	Provincial Recreation Area	X	X	X	X	✓	✓	✓	✓
B	Andrew Lake	10,610	0.11	Provincial Recreation Area	X	X	X	X	✓	✓	✓	✓
Gardiner Lakes												
To be incorporated into the Birch Mountain Wildland Park												
C	Gregoire Lake	4,396	0.05	Provincial Recreation Area	X	X	X	X	✓	✓	✓	✓
D	Christina Crossing	555	0.01	Provincial Recreation Area	X	X	X	X	✓	✓	✓	✓
E	Cowper Lake	4,561	0.05	Provincial Recreation Area	X	X	X	X	✓	✓	✓	✓
F	Crow Lake	1,176	0.01	Provincial Recreation Area	X	X	X	X	✓	✓	✓	✓
G	Goodwin Lake	410	0.004	Provincial Recreation Area	X	X	X	X	✓	✓	✓	✓
H	Clyde Lake	11,665	0.13	Provincial Recreation Area	X	X	X	X	✓	✓	✓	✓
I	Winefred Lake	9,197	0.10	Provincial Recreation Area	X	X	X	X	✓	✓	✓	✓
Total		51,102	0.55									

New – Public Land Areas for Recreation and Tourism

Area	Area Name	Area Size (ha)	Per Cent of the Region (9,321,247 ha)	Legal Designation	Permitted-Activities									
					Petroleum and Natural Gas	Oil Sands, Metallic and Industrial Minerals and Coal (Note 2)	Surface Materials (Note 3)	Forestry	Grazing (Note 5)	Motorized Recreation on Designated Routes Only	Hunting, Fishing, Trapping (including by aboriginal peoples) (Note 6)	Multi-use Corridors (Note 7)		
	Slave Lake South													
1	Lake Athabasca	6,961	0.07	Public Land Use Zone	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	Richardson	68,570	0.74	Public Land Use Zone	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	Athabasca River	6,118	0.07	Public Land Use Zone	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	Clearwater River	1,128	0.01	Public Land Use Zone	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5	House River	1,966	0.02	Public Land Use Zone	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Total	84,743	0.91											

To be included in the Kazan Wildland Provincial Park

Green Area – Mixed-use

Permitted Activities Public Lands										
Area Size (ha)	Per Cent of the Region (9,321,247 ha)	Petroleum and Natural Gas	Oil Sands, Metallic and Industrial Minerals and Coal (Note 2)	Surface Materials	Forestry	Grazing (Note 5)	Tourism and Recreation	Motorized Access	Hunting, Fishing, Trapping (including by aboriginal peoples) (Note 6)	Multi-use Corridors (Note 7)
5,415,345	58.10	√	√	√	√	√	√ For grazing leases permission of lease holder is required for recreational access	√	√	√

White Area – Settled

Permitted Activities Public Lands										
Area Size (ha)	Per Cent of the Region (9,321,247 ha)	Petroleum and Natural Gas	Oil Sands, Metallic and Industrial Minerals and Coal (Note 2)	Surface Materials	Forestry	Grazing (Note 5)	Tourism and Recreation	Motorized Access	Hunting, Fishing, Trapping (including by aboriginal peoples) (Note 6)	Multi-use Corridors (Note 7)
672,220	7.21	√	√	√	√	√	√ For grazing leases permission of lease holder is required for recreational access	√	√	√

Private Lands - Private landowners make decisions about how to use and manage their land consistent with existing provincial and municipal legislation - the Lower Athabasca Regional Plan does not change this or alter private property rights.

Approximately 10 per cent of the region includes the Cold Lake Air Weapons Range, First Nations Reserves, Métis Settlements and Lake Athabasca.

Note 1:**Petroleum and Natural Gas Exploration and Development in New and Existing Conservation Areas, New Provincial Recreation Areas and Existing Provincial Parks for Recreation**

Existing petroleum and natural gas tenure will be honoured in **new and existing** conservation areas, **new** provincial recreation areas and **existing** provincial parks for recreation, 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.

Note 2:**Oil Sands, Metallic and Industrial Minerals and Coal**

Oil sands means mineable and in situ oil sands.

Note 3:**Surface Materials (sand, gravel, clay, marl, silt and peat)**

Existing surface materials leases will be honoured in **new and existing** conservation areas, **new** provincial recreation areas and **existing** provincial parks for recreation, in accordance with existing policy.

Note 4:**Ecosystem Forestry**

Low impact forest practices with the primary goal being protection of natural ecosystem and using forest resources sustainably, when conservation and sustainable use can be mutually beneficial. The intent is to meet the International

Union for Conservation of Nature criteria for a Category VI protected area: protected area with sustainable use of natural resources. The primary objective is maintenance of biological diversity, and sustainable use of resources is a secondary objective. Practices include winter-only operations, leaving behind significant areas of forest undisturbed and timber harvest patterns that follow historical wildfire patterns. To meet Category VI criteria, the Canadian guidelines outline that the protected area should be at least two-thirds in a natural condition, and not subject to sustainable forestry.

**Note 5:
Grazing**

Approvals for new grazing dispositions are subject to grazing suitability assessment.

**Note 6:
Hunting, Fishing and Trapping (including by aboriginal peoples)**

With the exception of new 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.

**Note 7:
Multi-use Corridors**

A multi-use corridor is a dedicated land area identified by the Government of Alberta for co-location of linear infrastructure that supports critical economic linkages to markets. (See Outcome 5, Strategy E.) These may include:

- Public highways;
- Electric transmission;
- High speed rail and rail;
- Pipelines (i.e., oil, gas, bitumen, carbon dioxide);
- Water management;
- Telecommunication towers and underground fibre-optic cables; and
- Recreation trails.

**Note 8:
New Conservation Areas (access to water)**

There are a number of known corridors and key routes that are used for access to water resources and associated infrastructure. This access to surface water and groundwater is related to various activities.






At the time when the new conservation areas are established, these known corridors and key access routes will be identified. They will be addressed either by excluding them through minor boundary adjustments, or by using other provisions in existing legislation. Following the establishment of the conservation areas, any further access for water would have to be compatible with the management intent of the conservation areas. Activities such as monitoring may be considered compatible, while permanent infrastructure for private purposes would not.













Conservation Areas

-  Wildland Provincial Parks
- 1 Kazan Wildland Park
- 2 Richardson Wildland Park
- 3 Gipsy-Gordon Wildland Park
- 4 Birch Mountains Provincial Wildland Park (Expansion)
- 5 Dillon River Wildland Park
-  Public Land-use Zones
- 6 Birch River Conservation Area

Recreation/Tourism Areas

-  Provincial Recreation Areas
- A Slave River Rapids
- B Andrew Lake
- C Gregoire Lake
- D Christina Crossing
- E Cowper Lake
- F Crow Lake
- G Goodwin Lake
- H Clyde Lake
- I Winefred Lake
-  Public Land Areas for Recreation/Tourism
- 1 Lake Athabasca
- 2 Richardson
- 3 Athabasca River
- 4 Clearwater River
- 5 House River
-  Lakeland Country Iconic Tourism Destination

Base Data

-  Land-use Framework Regional Boundary
-  Green Area
-  White Area
-  Provincial Park and Protected Area
-  National Park
-  City, Town, Urban Service Area
-  First Nations Reserve
-  Métis Settlement
-  Military Reserve
-  Hydrography
-  Provincial Highway
-  Other Population Centres



Base Map Data Provided by Spatial Data Warehouse Ltd.
 Lower Athabasca New Conservation and Recreation/Tourism Areas, Government of Alberta
 Spatial Data Outside of Alberta: Natural Resources Canada (Coordinates)
 Saskatchewan Parks & Provincial Parks, Information Services Corporation (Saskatchewan)

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