



Land-use Framework Regional Plans

PROGRESS REPORT

a review of our progress in 2015



Alberta
Government

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Progress Report

2015

Introduction

The Land-use Framework (LUF) introduced in 2008 provides a blueprint for land-use management and decision-making to address mounting pressures on Alberta's land and resources. It also establishes a vision of Albertans working together to respect and care for the land as a foundation for our environmental, economic and social well-being.

Since that time, many advances have been made including the establishment of the *Alberta Land Stewardship Act* (2011) and the adoption of an integrated and coordinated approach to resource management. This approach encourages cumulative effects management of natural assets taking into account the growing impacts of development on the land over several years. It relies on legislation, regulations and on LUF regional plans developed for each of seven regions within the province, to provide direction. To date, two regional plans – the Lower Athabasca Regional Plan (2012) for northeastern Alberta and the South Saskatchewan Regional Plan (2014) for southern Alberta – have become regulations.

Regional plans are developed with input and feedback from Albertans. They establish a long-term vision for the region, set the desired economic, environmental and social outcomes and objectives for the region using a cumulative effects management approach, and align provincial policy at the regional level to balance Alberta's outcomes. Further, regional plans specifically describe the strategies, actions, approaches and tools required to achieve these desired ends and they contain regulatory provisions to enable achievement of these strategies and actions for the region over the next few years. They are enforceable by law and binding on everyone as identified in the *Alberta Land Stewardship Act*. This provides guidance and clarity for land users and land-use decision-makers.

This Progress Report meets the legislative requirements described in the *Alberta Land Stewardship Act* and the regulatory requirements embedded in the plans. It also fulfills a public commitment to regularly monitor and answer the question "was progress made toward achieving desired regional objectives expressed within the approved regional plans?"

Progress Report 2015 is the third in a series of reports, focusing for the first time on both the Lower Athabasca and South Saskatchewan Regional Plans. This report is dedicated to offering information regarding the work accomplished or the barriers encountered as both of the plans were implemented in 2015. Progress reports generated over the course of several years will be used to inform five year evaluations and 10 year reviews of regional plans. Copies of this and earlier reports are available on-line at landuse.alberta.ca or through the Land Use Secretariat (LUF@gov.ab.ca or 780.644.7972).

Summary of Progress in 2015

Lower Athabasca Regional Plan

The Lower Athabasca Regional Plan (LARP) came into effect in September 2012. It is the first of seven land-use regional plans laid before the Legislative Assembly and made by the Lieutenant Governor in Council. It presents the desired economic, social and environmental outcomes for northeastern Alberta and a detailed plan to achieve these results. For example, LARP sets regional environmental management triggers and limits for air and surface water quality, and provides for six new conservation areas with the aim of conserving two million hectares or 22 per cent of the region.

The plan encourages economic diversification, addresses infrastructure challenges around Fort McMurray, commits to continued consultation with indigenous peoples, offers greater certainty to industry, and provides for nine new provincial recreation areas to address growing demand for recreational and tourism opportunities. Also, LARP commits government to the development of a biodiversity management framework, a tailings management framework and a surface water quantity management framework to guide the actions and decisions of land and natural resource managers.

Implementation of the regional plan continued in 2015. During the early part of the year the Stewardship Minister issued a Ministerial Order allowing Enbridge Pipelines Inc. to build the Norlite Diluent Pipeline through the Gipsy-Gordon Conservation Area within an existing pipeline corridor. Midway through the year, a panel submitted their recommendations to the Stewardship Minister on whether six First Nations and one Métis community were directly or adversely affected by provisions in LARP. More information regarding the Ministerial Order and review panel recommendations is publicly available at landuse.alberta.ca.

2015 was a busy year for the Government of Alberta under new leadership. The government met its 2015 obligations by successfully completing the Scenic Byways Network and the Tailings Management Framework and updating the Surface Water Quantity Management Framework for the Lower Athabasca River. Of 35 strategies to which commitments were made in LARP for 2015 and all other years, 27 were **completed, remained on track, or are on-going**. Work on the following eight strategies was **deferred**:

1. Sub-regional plan using a strategic environmental assessment approach for the south Athabasca Oil Sands area,
2. Lakeland Country Destination Development Plan,
3. Tourism Development Nodes,
4. Tourism opportunity assessment for the Quarry of the Ancestors, Bitumount and Fort Chipewyan,
5. Develop a biodiversity management framework,
6. Develop a landscape management plan for public lands in the Green Area,
7. Complete and implement a Groundwater Management Framework for the Lower Athabasca Region,
8. Develop the regional parks plan for the Lower Athabasca.

This is an increase from the five strategies reported as delayed in 2013 and the six strategies reported as delayed in 2014.

Following are summary tables outlining the 2015 status of all the strategies and supporting indicators identified in Table 1 and Table 2 of LARP. This is followed by a closer look at each strategy and indicator.

Lower Athabasca Regional Plan Progress in 2015

Strategies and Outcomes	Lead Ministry	Status
Provincial Outcome: Healthy economy supported by our land and natural resources		
LARP Outcome 1: 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 and Parks	Ongoing
Sub-regional plan using a strategic environmental assessment approach for the south Athabasca oil sands area	Environment and Parks	Due 2013; deferred to 2016
Connecting the Dots: Aboriginal Workforce and Economic Development in Alberta	Indigenous Relations	Ongoing
LARP Outcome 2: The region's economy is diversified		
Prevent future shortfalls in timber supply	Agriculture and Forestry	Ongoing
Wildfire management planning initiatives	Agriculture and Forestry	Ongoing
Alberta Forest Products Roadmap to 2020	Agriculture and Forestry	Ongoing
Lakeland Country Destination Development Plan	Culture and Tourism	Due 2015; deferred to 2017
Enhance and expand supply of tourism products and infrastructure	Culture and Tourism	Ongoing
Tourism development nodes	Culture and Tourism	Due 2015; deferred to 2017
Tourism opportunity assessments for Quarry of the Ancestors, Bitumont and Fort Chipewyan	Culture and Tourism	Due 2014; deferred to 2016
Scenic Byways Network	Culture and Tourism	Completed
Clarity in rules for physical access to energy, mineral and coal resources	Environment and Parks, Energy	Ongoing
Promote new investment in energy, mineral and coal resource development	Energy	Ongoing
Provincial Outcome: Healthy ecosystems and environment		
LARP Outcome 3: Landscapes are managed to maintain ecosystem function and biodiversity		
Create new conservation area on provincial Crown land	Environment and Parks	As soon as practicable
Manage existing conserved lands	Environment and Parks	Ongoing
Develop a biodiversity management framework	Environment and Parks	Due 2013; deferred to 2016
Develop a landscape management plan for public lands in the Green Area	Environment and Parks	Due 2013; deferred to 2016
Complete a tailings management framework for the mineable Athabasca Oil Sands	Environment and Parks	Ongoing
Implement the progressive reclamation strategy	Environment and Parks	Ongoing

LARP Outcome 4: Air and water are managed to support human and ecosystem needs		
Implement Air Quality Management Framework for the Lower Athabasca Region	Environment and Parks	Ongoing
Implement Surface Water Quality Management Framework for the Lower Athabasca River	Environment and Parks	Ongoing
Complete and implement Groundwater Management Framework for the Lower Athabasca Region	Environment and Parks	Due 2014; deferred to 2018
Complete an updated Surface Water Quantity Management Framework for the Lower Athabasca River	Environment and Parks	Completed
Provincial Outcome: People-friendly communities with ample recreational and cultural opportunities		
LARP Outcome 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 linkage to markets	Transportation, Economic Development and Trade	Ongoing
LARP Outcome 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	Environment and Parks	As soon as practicable
Create public land areas for recreation and tourism that contain unique features or settings	Culture and Tourism, Environment and Parks	As soon as practicable
Develop the regional parks plan for the Lower Athabasca	Environment and Parks	Due 2013; deferred to 2016
Develop the Lower Athabasca Regional Trail System Plan	Environment and Parks	Ongoing
Collect regional data including completion of recreation and tourism inventory, a scenic resource assessment inventory and a regional recreational demand and satisfaction survey	Culture and Tourism	Ongoing
LARP Outcome 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 Parks, Agriculture and Forestry, Energy, Culture and Tourism, Indigenous Relations	Ongoing
Invite First Nations expressing an interest in Richardson Backcountry to be involved in a sub-regional initiative called the First Nations-Richardson Backcountry Stewardship Initiative (Richardson Initiative)	Environment and Parks, Agriculture and Forestry, Energy, Culture and Tourism, Indigenous Relations	Ongoing

Indicators and Outcomes	Lead Ministry	Results
Provincial Outcome: Healthy Economy Supported by our Land and Natural Resources		
LARP Outcome 1: Economic potential of the oil sands resource is optimized		
Labour Force	Labour	72.6% employment rate 7.9% unemployment rate
Provincial Royalties	Energy	\$1.462B
Income (Personal)	Treasury Board and Finance	\$83,558 per person
Oil Sands Production Rate	Energy	2.3M barrels per day
Oil Sands Investment (Total)	Treasury Board and Finance	\$22.5B
Production (Cost of)	Energy	\$18.61B
LARP Outcome 2: The region's economy is diversified		
Gross Domestic Product (Sectoral)	Treasury Board and Finance	\$24.7B
Employment (Sectoral)	Treasury Board and Finance	120,038 people
Public Land Actively Managed for Enhanced Forestry (Area)	Agriculture and Forestry	2,148 hectares
Land Disturbance on Productive Land Base on Public Land (Area)	Environment and Parks	134,978 hectares 5.03% disturbance
Agricultural Land Fragmentation	Agriculture and Forestry	2,958 parcels (10-80 acres in size)
Agricultural Land Conversion	Agriculture and Forestry	-1,550 hectares
Tourism Visitation	Culture and Tourism	1.81M person visits
Tourism Visitor Expenditures	Culture and Tourism	\$502M
Tourism Occupancy	Culture and Tourism	59%
Provincial Outcome: Healthy Ecosystems and Environment		
LARP Outcome 3: Landscapes are managed to maintain ecosystem function and biodiversity		
Species (Status in Alberta), including Species at Risk	Environment and Parks	9 of 33 species at risk
Land Disturbance on Public Land (Area)	Environment and Parks	5.3%
Biodiversity (Status of Indicators)	Environment and Parks	In development
Land Retained in Native Vegetation (Area)	Environment and Parks	94.7%
Oil Sands Reclamation (Area)	Environment and Parks	6,164 hectares in Alberta
Fluid Fine Tailings (Volume)	Environment and Parks	1,134 million cubic metres
LARP Outcome 4: Air and water are managed to support human and ecosystem needs		
Air Quality	Environment and Parks	0 limits exceeded 7 triggers crossed
Water Quality	Environment and Parks	0 limits exceeded 3 triggers crossed
Groundwater	Environment and Parks	In development

Provincial Outcome: People-friendly Communities with Ample Recreational and Cultural Opportunities

LARP Outcome 5: Infrastructure development supports economic and population growth

Oil Sands Projects: Current/ Approved/ Pending	Energy	139 operating projects 10 projects under construction 18 approved projects 24 applications for projects
Population (Regional)	Treasury Board and Finance	130,380 people
Traffic (Counts)	Transportation	224,518 vehicles
Construction (Cost of)	Economic Development and Trade	\$1.8B
Cost of Living	Treasury Board and Finance	+ 1.1%
Rental Affordability	Municipal Affairs	Lower rental rates Higher vacancy rates

LARP Outcome 6: The quality of life of residents is enhanced through increased opportunities for recreation and active living

Recreational Opportunities within the Region (Satisfaction with)	Culture and Tourism	28.4% park visitation 88.8% park satisfaction 71.6% park re-visits 93.8% appreciate historical resources 96.4% value historical resources
Parks per Capita (Area per Capita of Parks or Designated Open Space for Recreation)	Environment and Parks	638,035 hectares parks 69,158 hectares recreation areas 4.89 hectares parks/ person
Recreational Infrastructure (such as number of campsites, kilometres of designated trails)	Environment and Parks	1,303 campsites 1,910 km of trails

LARP Outcome 7: Inclusion of aboriginal peoples in land-use planning

First Nations (Participation Rate) in the Richardson Initiative	Environment and Parks, Agriculture and Forestry, Energy, Indigenous Relations, Culture and Tourism	Participating in 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 Parks, Agriculture and Forestry, Energy, Indigenous Relations, Culture and Tourism	Continue to be consulted

South Saskatchewan Regional Plan

The South Saskatchewan Regional Plan (SSRP), named after the watershed encompassing the southern portion of the province and home to 44 per cent of Alberta's population, came into effect on September 1, 2014.

The plan provides for eight new or expanded conservation areas and eight new or expanded recreation areas including 12 new areas for "no service" camping and trail access. Further, SSRP sets environmental management triggers and limits for surface water and air quality, and commits to developing a biodiversity management framework, a comprehensive approach to groundwater management, and a regional parks plan and trail system. Finally, the plan continues to protect headwaters in the eastern slopes, promote efficient use of land to reduce human footprint on the landscape, reduce native grassland conversion, and commits to ongoing work on climate variability issues within the region including flood risk and drought management.

The report takes a look at the changes in these strategies and in associated indicators one full year after the plan was implemented. 2015 was a productive year as government successfully completed the Review of Integrated Resource Plans for the region, Majorville Guidelines for Land and Resource Management, development and evaluation of the Southeast Alberta Conservation Offset Pilot, the South Saskatchewan Region Surface Water Quality Management Framework, and a water storage opportunities study for the South Saskatchewan River Basin.

While these and most of the other 27 strategies within the regional plan remained **on track or ongoing**, the following seven were **deferred**:

1. Complete the South Saskatchewan Region Biodiversity Management Framework,
2. Develop a linear footprint management plan for Green Area and White Area public lands with priority planning for the Porcupine Hills and Livingstone areas,
3. Complete a linear footprint management plan for Green Area and White Area public lands for remaining areas
4. Establish a Pekisko Special Management Area and complete a management plan,
5. Complete recreation management planning for the Porcupine Hills,
6. Complete recreation management planning for Livingstone, Willow Creek, Allison/ Chinook, McLean Creek and Sibbald areas, and
7. Develop a regional parks plan for the South Saskatchewan Region.

Delays were caused, in part, to the significant resources committed to drafting and consulting on proposed amendments to SSRP in order to enhance protection of the Castle Special Management Area on the eastern slopes of the Rocky Mountains in southern Alberta. In September 2015, Government of Alberta announced its intention to protect the Castle area by expanding the existing Castle Wildland Provincial Parks and creating a new provincial park. Enhanced protection of the Castle helps to: conserve the area for important wildlife populations such as Grizzly bears; support headwaters protection in the Oldman Watershed; support continued practice of treaty rights and traditional land uses; and enhance recreational and tourism opportunities to diversify the local economy.

Following are summary tables outlining the general status in 2015 of all the strategies and supporting indicators identified in Table 1 and 2 of SSRP. The majority of the report is dedicated to offering detailed information regarding the work accomplished or barriers encountered as both LARP and SSRP were implemented in 2015.

South Saskatchewan Regional Plan Progress in 2015

Strategies and Outcomes	Lead Ministry	Status
Provincial Outcome: Healthy economy supported by our land and natural resources		
SSRP Outcome 1: The region's economy is growing and diversified		
Tourism destination areas: Develop and implement destination management strategies and destination management plans	Culture and Tourism	As soon as practicable
Provincial Outcome: Healthy ecosystems and environment		
SSRP Outcome 2: Air quality is managed to support healthy ecosystems and human needs through shared stewardship		
Implement the South Saskatchewan Region Air Quality Management Framework	Environment and Parks	Completed
SSRP Outcome 3: Biodiversity and ecosystem function are sustained through shared stewardship		
Complete the South Saskatchewan Region Biodiversity Management Framework	Environment and Parks	Due 2015; deferred to 2017
Develop a linear footprint management plan for Green Area and White Area public lands with priority planning for the Porcupine Hills and Livingstone areas	Environment and Parks	Due 2015; deferred to 2017
Complete a linear footprint management plan for Green Area and White Area public lands for remaining areas	Environment and Parks	Due 2017; deferred to 2018
Review Integrated Resource Plans in the region for their relevance and incorporate under this regional plan	Environment and Parks	Completed
Complete the Majorville Guidelines for Land and Resource Management	Environment and Parks	Completed
Establish new or expand existing conservation areas on provincial Crown land	Environment and Parks	As soon as practicable
Establish the Pekisko Special Management Area and complete management plan	Environment and Parks	Due 2015; deferred to 2017
Complete the development and evaluation of the Southeast Alberta Conservation Offset Pilot	Agriculture and Forestry	Completed
SSRP Outcome 4: Watersheds are managed to support healthy ecosystems and human needs through shared stewardship		
Implement the South Saskatchewan Region Surface Water Quality Management Framework	Environment and Parks	Completed
Develop a comprehensive approach for groundwater management	Environment and Parks	Due 2017
Develop a water storage opportunities study for the South Saskatchewan River Basin	Agriculture and Forestry	Completed
SSRP Outcome 5: Land is used efficiently to reduce the amount of area that is taken up by permanent or long-term developments associated with the built environment		
Strategies are ongoing	Municipal Affairs	Ongoing

Provincial Outcome: People-friendly communities with ample recreation and culture opportunities		
SSRP Outcome 6: The quality of life of residents is enhanced through increased opportunities for outdoor recreation and the preservation and promotion of the region's unique cultural and natural heritage		
Develop the South Saskatchewan Regional Trail System Plan	Environment and Parks	As soon as practicable
Address flood (2013) damaged recreation areas	Environment and Parks	As soon as practicable
Complete recreation management planning for the Porcupine Hills	Environment and Parks	Due 2015; deferred to 2017
Complete recreation management planning for Livingstone, Willow Creek, Allison/ Chinook, McLean Creek and Sibbald areas	Environment and Parks	Due 2016; deferred to 2018
Complete recreation management planning and/or update existing plans for other areas (including Castle, Ghost-Waiparous)	Environment and Parks	As soon as practicable
Create Public Lands Recreation Areas in the eastern slopes areas	Environment and Parks	As soon as practicable
Invest in existing parks facilities and designate new Provincial Parks and Provincial Recreation Areas	Environment and Parks	As soon as practicable
Develop a regional parks plan for the South Saskatchewan Region	Environment and Parks	Due 2016; deferred to 2018
SSRP Outcome 7: Aboriginal peoples are included in land-use planning		
Establish a South Saskatchewan Region Land Sub-table with interested First Nations in the region	Environment and Parks	Ongoing
Continue First Nation involvement in watershed management planning initiatives	Environment and Parks	Ongoing
Engage aboriginal peoples on initiatives to support tourism development	Culture and Tourism	Ongoing
Encourage and facilitate information sharing and education opportunities between First Nations with an interest in the region and the Government of Alberta	Culture and Tourism, Environment and Parks	Ongoing
SSRP Outcome 8: Community development needs are anticipated and accommodated		
Build awareness and work with municipalities to implement land-use strategies	Municipal Affairs	Ongoing

Indicators and Outcomes	Lead Ministry	Result
Provincial Outcome: Healthy Economy Supported by our Land and Natural Resources		
SSRP Outcome 1: The region's economy is growing and diversified		
Gross Domestic Product	Treasury Board and Finance	\$131.3B
Business Establishments	Economic Development and Trade	75,549 businesses
Major Projects (Inventory of)	Economic Development and Trade	\$25.2B
Building Permits	Economic Development and Trade	28,554 permits \$8,300M
Employment	Treasury Board and Finance	68.4% employment rate 6.1% unemployment rate 970,629 employed people
Income (Average total)	Treasury Board and Finance	\$61,598 per person
Agricultural Land Fragmentation	Agriculture and Forestry	28,915 parcels (10-80 acres in size)
Agricultural Land Conversion	Agriculture and Forestry	-4,070 hectares
Provincial Outcome: Healthy Ecosystems and Environment		
SSRP Outcome 2: Air quality is managed to support healthy ecosystems and human needs through shared stewardship		
Air Quality	Environment and Parks	0 limits exceeded 2 triggers crossed
SSRP Outcome 3: Biodiversity and ecosystem function are sustained through shared stewardship		
Biodiversity	Environment and Parks	In development
Area of Conserved Land	Environment and Parks	428,194 hectares
SSRP Outcome 4: Watersheds are managed to support healthy ecosystems and human needs through shared stewardship		
Water Quality	Environment and Parks	0 limits exceeded 3 triggers crossed
Water Quantity	Environment and Parks	In development
SSRP Outcome 5: Land is used efficiently to reduce the amount of area that is taken up by permanent or long-term developments associated with the built environment		
Efficient Use of Land (Indicators in Development)	Municipal Affairs	In development

Provincial Outcome: People-friendly Communities with Ample Recreational and Cultural Opportunities		
SSRP Outcome 6: The quality of life of residents is enhanced through increased opportunities for outdoor recreation and the preservation and promotion of the region's unique cultural and natural heritage		
Parks per Capita	Environment and Parks	426,619 hectares parks 0.23 hectares parks/ person
Recreational Infrastructure	Environment and Parks	6,424 campsites
Historic Resources	Culture and Tourism	86 permits issued 200 sites discovered 2 sites designated
SSRP Outcome 7: Aboriginal peoples are included in land-use planning		
Aboriginal peoples continue to be consulted when Government of Alberta decisions may adversely affect their continued exercise of their constitutionally protected rights, and the input from such consultations continues to be reviewed prior to the decision	Environment and Parks, Agriculture and Forestry, Energy, Indigenous Relations, Culture and Tourism	Continue to be consulted
SSRP Outcome 8: Community development needs are anticipated and accommodated		
Population	Treasury Board and Finance	1,870,735 people



LARP Strategies

Provincial Outcome: Healthy economy supported by our land and natural resources

LARP Outcome 1: Economic potential of the oil sands resource is optimized

1. Continue work through the Alberta Provincial Energy Strategy

Alberta Energy – implementation is ongoing

Alberta's Provincial Energy Strategy (2008) charted the course of Alberta's energy future. Responsible development of Alberta's energy resources remains a priority for the government today. In July 2015, Alberta along with all of Canada's provincial and territorial governments agreed to the Canadian Energy Strategy – a framework for collaboration on shared priorities such as infrastructure development, technology and responsible development. The strategy builds on provincial and territorial commitments to allow the movement of energy products through the country, creating jobs and positioning Alberta as a global supplier of secure, environmentally sustainable energy.

2. Continue work on Responsible Actions: A Plan for Alberta's Oil Sands

Alberta Energy – implementation is ongoing

Responsible Actions: A Plan for Alberta's Oil Sands (2009) was a 20 year strategy developed to address current and future growth in the oil sands. It was intended to achieve optimized economic growth, reduced environmental footprint and increased quality of life for Albertans today and into the future. In 2015, reliance on Responsible Actions as the guiding plan for oil sands development decreased as other related national and provincial strategies were developed or renewed. In 2015, Alberta strengthened environmental protections in the oil sands with the development of a tailings management framework. Today, many energy initiatives including Alberta's Climate Leadership Plan are in various stages of development, demonstrating the government's ongoing commitment to developing the oil sands in a responsible manner.

3. Continue work on an improved regulatory process

Alberta Energy and Alberta Environment and Parks – implementation is ongoing

Business processes were streamlined in 2015 to ensure the Alberta Energy Regulator has timely access to government-approved policy, regulation and legislation through the Alberta Responsible Energy Policy System. In February 2015, 34 amendments were made to the Specified Enactments (Jurisdiction) Regulation, in part, to clarify roles and responsibilities. In June, a Regulatory Enhancement Project Task Team was formed with representatives from Alberta Environment and Parks, Energy and the Alberta Energy Regulator. The team, which is responsible for managing and resolving regulatory and policy issues, identified 14 issues. Over half of these have now been resolved. The team will continue this and related policy work in 2016 in order to provide certainty for stakeholders, regulators and Albertans in the oil and gas and oil sands sectors..

4. Sub-regional plan using a strategic environmental assessment approach for the South Athabasca Oil Sands area

Alberta Environment and Parks - due 2013, deferred to 2016

Development of a sub-regional plan using a strategic environmental assessment approach for the South Athabasca Oil Sands area will contribute to the management of cumulative effects and support efficiencies in the regulatory review process for in-situ oil sands operations. The South Athabasca Oil Sands Regional Strategic Assessment examines the potential cumulative effects of three energy development scenarios in an area between Fort McMurray and Lac La Biche that will likely see significant development of bitumen resources over several decades. A final draft of the South Athabasca Oil Sands Regional Strategic Assessment was completed in 2015 and is targeted for release in 2016. This assessment and companion sub-regional plan will be integrated with the Landscape Management Plan for the region.

5. Continue work on Connecting the Dots: Aboriginal Workforce and Economic Development in Alberta

Alberta Indigenous Relations – implementation is ongoing

Leveraging progress made through Connecting the Dots: Aboriginal Workforce and Economic Development in Alberta and other key initiatives lead by Alberta Indigenous Relations, in 2015 groundwork was laid for an Aboriginal Economic Partnership Program which helps aboriginal communities, businesses and organizations to increase their participation in economic development and contribute to improved socio-economic outcomes for peoples. The ministry also provided funding to Aboriginal Financial Institutions to work directly with indigenous entrepreneurs. These programs along with the Aboriginal Business Investment Fund and Employment Partnership Program encourage participation of First Nations, Métis and Inuit communities in the economy and labour market. During the year, the ministry also continued to support community, social and economic development in First Nations communities through the First Nations Development Fund as well as the First Nations and Métis Women's Economic Security Councils that identify barriers to economic participation and improve socio-economic outcomes for indigenous women in Alberta.

LARP Outcome 2: The region's economy is diversified

6. Continue to prevent future shortfalls in timber supply

Alberta Agriculture and Forestry – implementation is ongoing

The Alberta forest sector faces a number of growing challenges caused by natural factors such as insects, disease, wildfire, and climate change and non-natural factors such as international trade agreements and diminishing productive forested public lands as a result of competing development projects and use. In 2015, Alberta Agriculture and Forestry updated the Forest Genetic Resource Management and Conservation Standards Manual to address adaptive management in artificial reforestation of trees/shrubs and to meet conservation and sustainable use management responsibilities. Also, the department continued to implement the Mountain Pine Beetle Management Program.

7. Continue work on wildfire management planning initiatives

Alberta Agriculture and Forestry – implementation is ongoing

The amount of wildfire risk in Alberta is increasing due to population growth pressures, rapid development in the wildland/urban interface, and industrial activity on the landscape. In 2013 the Government of Alberta developed the Wildfire Management Planning Standard as a guideline for wildfire risk management in Alberta. These plans are intended to guide wildfire prevention, mitigation, preparedness, response and recovery within a Forest Area for a five year period. Wildfire management strategies are developed in alignment with regional outcomes. In 2015, the Wildfire Management Plan for Fort McMurray was under development and management strategies outlined in the Lac La Biche Wildfire Management plan were implemented. The Fort McMurray Wildfire Management Plan is expected to be completed in 2016.

8. Continue work on the Alberta Forest Products Roadmap to 2020

Alberta Agriculture and Forestry – implementation is ongoing

Collaboration between Government of Alberta and the forest industry sector is focused on an approach to make Alberta's forest sector the most successful in North America, based on economic competitiveness and environmental performance. Strategies are aimed at achieving growth, progress and long-term viability in Alberta's forest products industry, enhanced contributions to rural communities and the province at large, and towards green solutions to environmental and economic challenges. In 2015, this collaboration continued to explore opportunities to diversify the sector through new markets and products.

9. Lakeland Country Destination Development Plan

Alberta Culture and Tourism – due 2015; deferred to 2017

Lakeland Country will be developed as an iconic provincial tourism destination in order to: diversify the regional and local economy; increase tourism and recreational opportunities; provide an attractive destination for local, national and international visitors; support hunting, fishing and trapping; protect and maintain private property rights; honor existing statutory consents and tenure on public lands and provide for continued issuance of new ones.

10. Continue to enhance and expand the supply of tourism products and infrastructure

Alberta Culture and Tourism – implementation is ongoing

The tourism industry has great potential to diversify Alberta's economy. It is a multi-billion dollar industry that supports over 19,000 tourism businesses and employs more than 139,000 people, either directly or indirectly. Tourism revenue is a key economic driver for the province and contributes to the well-being of all Albertans. Work is on-going to identify and develop new tourism opportunities in the region, and Fort McMurray Tourism continues to be an important, collaborative partner in this initiative.

11. Tourism Development Nodes

Alberta Culture and Tourism – due 2015, deferred to 2017

Tourism development nodes identify areas on public, municipal or private land that comprise a cluster of natural and built features, scenery and settings that can provide unique opportunities for recreation and tourism development. An established node is a commitment by provincial and municipal agencies to ensure that tourism development is the predominant use and focus for the area. In 2015, Alberta Culture and Tourism began reviewing its node policy, reassessing their effectiveness in tourism development. Potential tourism nodes will be considered during the preparation of the Lakeland Country Destination Development Plan.

12. Tourism opportunity assessments for Quarry of the Ancestors, Bitumount and Fort Chipewyan

Alberta Culture and Tourism – due 2014, deferred to 2016

Tourism opportunity assessments identify potential aboriginal tourism development and investment opportunities, including guided tours, educational programs, attractions, exhibits or interpretive sites. This creates a distinctive travel experience and showcases the region's unique scenic resources. Tourism opportunity assessments for Quarry of the Ancestors and Bitumount were completed in 2015. Assessments considered background reviews, destination analysis, market research, lifecycle assessments, community engagement, and situational reports. Based on these assessments, there are no plans to further develop either site for tourism purposes. A Tourism Opportunity Assessment for Fort Chipewyan will be completed in 2016.

13. Scenic Byways Network

Alberta Culture and Tourism – due in 2015; completed in 2015

Alberta Culture and Tourism will continue to work with municipal governments and other partners to identify, establish and promote scenic byways which include routes, trails and waterways in and around areas with high quality attractions, for recreation and tourism purposes. Creation of distinctive travel experiences will showcase the region's unique scenic resources and cultural landscapes. In 2014, routes, trails and waterways of the Lower Athabasca Region were identified. A "Live the Athabasca" recreation and tourism concept plan for the Lower Athabasca River was also completed. Over the next 10 years, work will continue with local communities to address tourism development around scenic byways of the Lower Athabasca Region. Identification of scenic byways may also be considered in the Lakeland Country Destination Development Plan.

14. Continue to clarify rules for physical access to energy, mineral and coal resources

Alberta Environment and Parks and Alberta Energy – implementation is ongoing

Alberta Energy and Alberta Environment and Parks continued to provide environmental stewardship direction and regulate access (during exploration, development and extraction), allocation and use of natural resources through planning, policy and policy assurance programs. With support from these and other integrated resource management system ministries and stakeholders, the Alberta Energy Regulator continued to clarify rules for accessing resources and laid the groundwork in 2015 for an Integrated Compliance Assurance Framework. The Framework establishes regulatory requirements then assures compliance in a way that considers, balances and respects social, economic and environmental expectations while operating under the *Responsible Energy Development Act*.

15. Continue to promote new investment in energy, mineral and coal resource development

Alberta Energy – implementation is ongoing

Alberta Energy continued to improve strategic, integrated systems and approaches to ensure responsible resource development and diversification in order to strengthen the overall environmental, economic and social outcomes for the benefit of Albertans. Alberta Energy's priority initiatives in 2015 included supporting pipeline infrastructure efforts to expand market access and exploring opportunities to diversify Alberta's energy industry, particularly for value-added products. Adding value through upgrading and refining energy resources will help to ensure economic prosperity. Having the necessary infrastructure to move energy products to tidewater will allow the best value possible from Alberta's energy resources.



Provincial Outcome: Healthy ecosystems and environment

LARP Outcome 3: Landscapes are managed to maintain ecosystem function and biodiversity

16. Create new conservation areas on provincial Crown land

Alberta Environment and Parks – as soon as practicable

LARP established an additional 16 per cent of the region as new conservation areas, bringing the total area of conserved lands from approximately 6 per cent to 22 per cent, or about two million hectares. In order to establish new conservation areas in the Lower Athabasca Region, Crown oil sands and metallic and industrial minerals (MIM) agreements that fell within, or partially within, new conservation areas established under LARP were subject to cancellation in accordance with section 8 (1) (c) of the *Mines and Minerals Act*.

The remaining Crown oil sands and metallic and industrial minerals agreements falling within or partially within the new conservation areas designated in LARP will be cancelled and receive compensation in early 2016. The following conservation areas are expected to be designated under the *Provincial Parks Act* and the *Public Lands Act* in 2016: Birch Mountains Wildland Provincial Park expansion, Dillon River Wildland Provincial Park, Richardson Wildland Provincial Park, Kazaan Wildland Provincial Park and Birch River Conservation Area.

17. Continue to manage existing conserved lands

Alberta Environment and Parks – implementation is ongoing

Conservation areas are clearly defined areas that have special rules to protect ecosystems and biological diversity. Wilderness Areas, Ecological Reserves, Wildland Provincial Parks, Natural Areas, Heritage Rangelands, and Conservation Area Public Land Use Zones are examples of the different types of conservation areas. Each of these has different ecological objectives and different land use rules associated with it. These rules dictate what kinds of activities – including recreation, development and industry – are prohibited in the area and which ones are permitted. LARP Schedule F identified permitted activities for existing and new conservation areas in the region. Since LARP came into effect, these areas have been managed and will continue to be managed with that intent until they are designated under the appropriate legislation through Order in Council. The Lower Athabasca Regional Parks Plan will continue to guide management direction and objectives for the region's parks.

18. Develop a biodiversity management framework

Alberta Environment and Parks – due 2013, deferred to 2016

Biodiversity management frameworks seek to maintain terrestrial and aquatic biodiversity while also supporting social and economic objectives for the region. Frameworks represent a systematic approach to biodiversity management. A draft Lower Athabasca Region Biodiversity Management Framework was completed and released for review in November 2014. The framework proposes a suite of terrestrial and aquatic biodiversity indicators. The indicators will be monitored, evaluated and reported against trigger values to help assess whether biodiversity objectives are achieved. The framework supports new and existing biodiversity policy as it underpins other Government of Alberta initiatives including the Landscape Management Plan. Completion of the framework is expected to occur in 2016. As part of implementation, there is a commitment to continuing engagement with First Nation and Métis groups to enhance incorporation of Traditional Knowledge and to develop and refine cultural and social indicators.

19. Develop a landscape management plan for public lands in the Green Area

Alberta Environment and Parks – due 2013, deferred to 2016

The Landscape Management Plan will incorporate strategies and management actions to reduce the extent and duration of human footprint. It will also serve to maintain opportunities for traditional uses and address indigenous peoples concerns and priorities identified in LARP with significant input from First Nations, Métis and other stakeholders. The Landscape Management Plan, focused on supporting biodiversity, will include modules focusing specifically on Moose Lake Access Management and South Athabasca Oil Sands. With respect to Moose Lake Access Management, the Government of Alberta will partner with Fort McKay First Nation to develop a 10 kilometer special management zone adjacent to their Moose Lake reserves identified as culturally significant, then develop a broader plan to manage the pace and scale of development in the Moose Lake module in a way that supports the Biodiversity Management Framework and traditional land use.

With respect to the South Athabasca Oil Sands area, the Government of Alberta will use regional strategic assessment to inform management of cumulative effects in the area and support efficiencies in the regulatory review process for in-situ oil sands operations. Alberta Environment and Parks will work with stakeholders and indigenous peoples to develop a plan that allows for the sustainable extraction of resources, while balancing the social and environmental components. This will include the creation of management zones that focus on minimizing land disturbance, support recreation and traditional land use activities and aid in achieving biodiversity objectives.

20. Continue to complete a tailings management framework

Alberta Environment and Parks – implementation is ongoing

The Tailings Management Framework for the Mineable Athabasca Oil Sands provides direction to manage fluid tailings volumes during and after mine operations in order to manage liability and decrease environmental risk resulting from the accumulation of fluid tailings on the landscape. With support from Alberta Environment and Parks, the Alberta Energy Regulator continues to lead the operationalization of the fluid tailings management intent of the Tailings Management Framework with the development of a new tailings management directive. Draft *Directive 085: Fluid Tailings Management for Oil Sands Mining Projects* will set requirements for managing fluid tailings volumes for oil sands mining projects, including application process and information requirements, fluid tailings management reporting requirements, and the surveillance and compliance process. Alberta Environment and Parks, with support from Alberta Energy and the Alberta Energy Regulator, is currently filling policy gaps related to reclamation of fluid tailings, water management on oil sands mine sites, pit lakes, and management tools (e.g., Mine Financial Security Program, compliance levy).

21. Continue to implement the progressive reclamation strategy

Alberta Environment and Parks – implementation is ongoing

To increase the pace of reclamation of oil sands mines, the LARP adopted a progressive reclamation strategy. This strategy includes a suite of initiatives and tools to improve financial security and environmental performance within the oil sands mining sector. It has three key components: updated reclamation security policy, enhanced reclamation reporting, and clarification of the reclamation certification program. The Mine Financial Security Program was released in 2011 as the new financial security program for oil sands and coal mines (component 1 of the strategy). The Oil Sands Information Portal was launched in 2012 to be a source of publicly accessible spatial and non-spatial information/ data on oil sands mining disturbance and reclamation (component 2 of the strategy). Implementation of the strategy continued in 2015 with expansion of the Oil Sands Information Portal to include reclamation and disturbance information for oil sands in-situ operations, and completing the review of the Cumulative Environmental Management Association's Criteria and Indicators Framework for Oil Sands Mine Reclamation Certification (in support of component 3 of the strategy). In 2016, the following initiatives to improve the Mine Financial Security Program will be underway or be completed: Mine Financial Security Program Three-Year Review, Revision of the Mine Financial Security Program to implementation the intent of the Tailings Management Framework for the Minable Athabasca Oil Sands, and Implementation Plan to Address Office of the Auditor General Review and Recommendations on the Mine Financial Security Program.

LARP Outcome 4: Air and water are managed to support human and ecosystem needs

22. Continue to implement the Air Quality Management Framework for the Lower Athabasca Region

Alberta Environment and Parks – implementation is ongoing

The Air Quality Management Framework for the Lower Athabasca Region supports the management of cumulative effects of emissions with triggers and limits for nitrogen dioxide (NO₂) and sulfur dioxide (SO₂). Annual reports provide information on the status of ambient environmental conditions and the progress of management responses that have been initiated. Reporting is ongoing and can be found on the Alberta Environment and Parks website at: aep.alberta.ca/lands-forests/cumulative-effects/regional-planning/lower-athabasca.aspx.

23. Continue to implement the Surface Water Quality Management Framework for the Lower Athabasca River

Alberta Environment and Parks – implementation is ongoing

The Surface Water Quality Management Framework for the Lower Athabasca River supports the monitoring and management of long-term, cumulative changes in ambient surface water quality within the lower Athabasca River. Annual reports provide information on the status of ambient environmental conditions and the progress of management responses that have been initiated. Reporting is ongoing and can be found on the Alberta Environment and Parks website at: aep.alberta.ca/lands-forests/cumulative-effects/regional-planning/lower-athabasca.aspx.

24. Complete and implement the Groundwater Management Framework for the Lower Athabasca Region

Alberta Environment and Parks – due 2014, deferred to 2018

The Groundwater Management Framework for the Lower Athabasca Region helps protect groundwater resources from contamination and over-use in three management areas: North Athabasca Oil Sands; South Athabasca Oil Sands; and Cold Lake – Beaver River areas. The framework is now in place with interim triggers, while work continues on finalizing triggers. Framework implementation requires ongoing monitoring of the current network and the completion of regional monitoring networks for the North Athabasca Oil Sands, South Athabasca Oil Sands, and Cold-Lake-Beaver River areas. Monitoring activities have been deferred due to the scale and complexity of groundwater systems and the resources required to understand and represent these systems. Efforts in 2015 were focused on reviewing and optimizing the groundwater monitoring network.

25. Complete an updated surface water quantity management framework for the Lower Athabasca River

Alberta Environment and Parks – due 2012, completed in 2015

The framework focuses on managing water use by the mineable oil sands sector and seeks to establish an appropriate balance between water needed for environmental protection, community and industry needs. The framework is built upon a foundation of continuous improvement, employing a series of adaptive management indicators and triggers that enable ongoing testing of assumptions around climate change, upstream water use, and industrial development in the basin. In fall 2015, while working collaboratively with the Alberta Energy Regulator and mineable oil sands operators, Alberta Environment and Parks implemented the framework. This work culminated in the delivery of a water management agreement which specifies the individual water allocation of specific operators during different seasons and under different stream flow conditions. In 2016, Alberta Environment and Parks will continue to work with indigenous peoples in the development of a navigation hazard application that will support the incorporation of Traditional Knowledge into future updates of the framework.



Provincial Outcome: People-friendly communities with ample recreational and cultural opportunities

LARP Outcome 5: Infrastructure development supports economic and population growth

26. Continue to use CRISP to augment and facilitate planning where oil sands development causes growth pressures

Alberta Energy – implementation is ongoing

The Comprehensive Regional Infrastructure Sustainability Plan (CRISP) is a long-term flexible and integrated approach to planning for growth in the province's three oil sands areas. In 2015, work continued on implementing the Athabasca and Cold Lake CRISPs. While Cold Lake CRISP stakeholder meetings focused on transportation and aviation challenges, Athabasca CRISP stakeholder meetings identified road and aviation transportation priorities and provided support to several key stakeholder groups involved in development of transportation infrastructure and planning for continued community growth. Because of decreased oil sands production in the Peace River Oil Sands Area, the decision was made not to finalize the CRISP for this region in 2015.

27. Continue to ensure opportunities for future routes and siting for pipeline gateways, transmission corridors, utility and electrical transmission corridors are maintained

Alberta Energy and Alberta Transportation – implementation is ongoing

In 2015, Alberta Energy continued to work with Alberta Transportation, other ministries and stakeholders to support energy-related infrastructure development, placing a safe, reliable, efficient, affordable and environmentally responsible electricity system for Albertans high on the list of priorities. Significant investments in transmission expansion, generation by electricity companies, use of alternative energy sources such as wind, solar and industrial co-generation, and phasing out the use of coal-fired electricity generation are expected to improve the environment and health of Albertans. Alberta's Climate Change Strategy, Alberta's Energy Sustainability Strategy and Alberta Transportation's development of a reliable multi-modal transportation network, all underway in 2015, are expected to contribute to a diversified, value-added economy that supports a growing population, high quality of life, and a healthy environment.

28. Continue work on critical economic linkages to markets

Alberta Transportation and Alberta Economic Development and Trade – implementation is ongoing

Critical economic linkages to markets include: connecting the Mackenzie Delta with Asia-Pacific markets; north-south routes linking the Industrial Heartland area to Fort McMurray, Fort McMurray to the Northwest Territories, and Fort McMurray to Lac La Biche; and east-west routes linking Fort McMurray to La Loche, Saskatchewan (east from Highway 881); and the west route, future Highway 686 linking Fort McMurray to Red Earth Creek. In 2015, the Government of Alberta completed twinning of Highway 63 between Atmore and Fort McMurray to improve safety and accommodate economic activity.

LARP Outcome 6: Quality of life of residents is enhanced through increased opportunities for recreation and active living

29. Designate new provincial recreation areas to address the growing demand for recreational opportunities

Alberta Environment and Parks – as soon as practicable

To optimize the recreation and tourism potential for both residents and visitors, LARP provides for nine new provincial recreation areas. It is expected that the following areas will be designated under the *Provincial Parks Act* in 2016: Andrew Lake Provincial Recreation Area, Christina Crossing Provincial Recreation Area, Clyde Lake Provincial Recreation Area, Cowper Lake Provincial Recreation Area, Gregoire Lake Provincial Recreation Area, Slave River Provincial Recreation Area, Crow Lake Provincial Recreation Area, Goodwin Lake Provincial Recreation Area, and Winefred Lake Provincial Recreation Area.

30. Create public land areas for recreation and tourism that contain unique features or settings

Alberta Culture and Tourism and Alberta Environment and Parks – as soon as practicable

New public land areas for recreation and tourism in the region contain unique features, scenery or settings to address the growing demand for recreational opportunities and provide an attractive land base for tourism investment. To optimize the recreation and tourism potential for both residents and visitors, LARP provides for five new public land areas for recreation and tourism development. These new areas are: Lake Athabasca, Richardson, Athabasca River, Clearwater River, and House River. Establishment of these areas is anticipated to continue in 2016.

31. Develop the regional parks plan for the Lower Athabasca

Alberta Environment and Parks – due 2013, deferred to 2016

The Regional Parks Plan provides management direction to achieve the integrated recreation and conservation mandate of the Alberta Provincial Parks program. The Regional Parks Plan summarizes current recreation and conservation values on a site-by-site basis, provides broad, future-focused management direction of those values, and with help from Albertans, identifies where further planning is required. It also provides Albertans with better information about the values of each park as well as the challenges faced in managing these values for current and future generations. In 2015, the Regional Parks Plan for the Lower Athabasca Region was completed. It is expected to be released as early as 2016 with the designation of the Wildland Provincial Parks and Provincial Recreation Areas.

32. Continue to develop the Lower Athabasca Regional Trail System Plan

Alberta Environment and Parks – implementation is ongoing

In collaboration with indigenous groups, stakeholders and Albertans, the Government of Alberta is coordinating development of the Lower Athabasca Regional Trail System Plan. The plan will designate trails, routes and areas which will link communities, destinations and other jurisdictions with the region's parks, recreation features and public lands. The Moose Lake Access Management Plan and regional Landscape Management Plan will inform this work.

33. Continue to collect regional data including completion of recreation and tourism inventory, a scenic resource assessment inventory, and a regional recreational demand and satisfaction survey

Alberta Culture and Tourism – implementation is ongoing

Data are foundational to informing recreation and tourism planning and this strategy ensures the ongoing collection and analysis of relevant data to inform the planning process. In 2015, the Resource Data System of Inventories was completed and used to inform the Fort Chipewyan Tourism Opportunity Assessment and the Regional Strategic Assessment for the South Athabasca Oil Sands area. In 2016, the Resource Data System of Inventories will be used to inform development of Landscape Management Plans and related regional planning projects.

LARP Outcome 7: Inclusion of aboriginal peoples in land-use planning

34. Continue to consult with aboriginal peoples in a meaningful way when government decisions may adversely affect the continued exercise of their constitutionally protected rights

Alberta Environment and Parks, Agriculture and Forestry, Energy, Culture and Tourism, Indigenous Relations – implementation is ongoing

LARP reaffirms Alberta's commitment to honour the constitutionally protected rights of aboriginal peoples and seeks opportunities to engage with indigenous communities by inviting them to share traditional knowledge to inform land and natural resource planning. In 2015, Alberta continued to implement the objectives and principles of the United Nations Declaration on the Rights of Indigenous Peoples so that First Nations, Inuit and Métis peoples are able to participate as equals in all aspects of Alberta's society while maintaining their cultures and unique identities.

Alberta Environment and Parks also continued to work with First Nations on implementation of the plan including the development of a Biodiversity Management Framework, a Landscape Management Plan, and the Moose Lake Access Management Plan. With respect to the LARP, in June 2015 an independent review panel appointed by the Stewardship Minister submitted their recommendations in response to applications from six First Nations and one Métis community who believed they were directly and adversely affected by a specific provision or provisions in the LARP. The panel's recommendations as well as the requests for review of LARP and supporting materials are publicly available at: landuse.alberta.ca/RegionalPlans/LowerAthabascaRegion/LARPRequestReview.

35. Continue to 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)

Alberta Environment and Parks, Agriculture and Forestry, Energy, Culture and Tourism, Indigenous Relations – implementation is ongoing

Athabasca Chipewyan First Nation, Mikisew Cree First Nation and Fort McKay First Nation identified the Richardson Backcountry as an area where they exercise traditional activities and have raised a variety of related land use and management concerns. The Government of Alberta invited First Nations who 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) which considers potential impact to treaty rights, fish and wildlife management, access management, economic opportunities, and management of new provincial parks and public land areas for recreation and tourism.

The Richardson Initiative offered an opportunity to address these and other issues raised separately by First Nations including issues related to scale and pace of resource development and loss of ability to continue to safely and meaningfully exercise treaty rights due to cumulative effects of development. Since March 2015, initial meetings were held with the Richardson Backcountry Stewardship Initiative Technical Team and interested First Nations.



SSRP Strategies

Provincial Outcome: Healthy economy supported by our land and natural resources

SSRP Outcome 1: The region's economy is growing and diversified

1. Work on tourism destination areas: develop and implement destination management strategies and destination management plans

Alberta Culture and Tourism – as soon as practicable

Alberta Culture and Tourism is enhancing tourism destination areas within the South Saskatchewan Region by engaging with indigenous communities, municipalities, industries and local stakeholders. Destination management strategies will enhance tourism in Canadian Badlands, Southwest Alberta and Kananaskis. In 2015, the destination management strategy for Canadian Badlands was completed. A grant was provided to Canadian Badlands Ltd. to carry out this 2015-2016 action plan. Also in 2015, Alberta Culture and Tourism began developing a Castle Region Tourism Strategy to contribute to a vision and road map for developing tourism in the region. For the purposes of the strategy, the Castle Region includes the Municipal Districts of Pincher Creek and Crowsnest Pass as well as the Town of Pincher Creek, the Village of Cowley, and Piikani Nation. The Castle Region Tourism Strategy is expected to be completed in 2017 and will be used instead of a formal destination management plan for Southwest Alberta. Requirements for a Kananaskis area strategy will be reviewed by 2019.



Provincial Outcome: Healthy ecosystems and environment

SSRP Outcome 2: Air quality is managed to support healthy ecosystems and human needs through shared stewardship

2. Implement the South Saskatchewan Region Air Quality Management Framework

Alberta Environment and Parks – due 2014; completed in 2014

The Air Quality Management Framework for the South Saskatchewan Region supports the management of cumulative effects of emissions with triggers and limits for nitrogen dioxide (NO₂), fine particulate matter (PM_{2.5}) and ozone (O₃). Implementation of the management framework was initiated with the approval of SSRP in September 2014. Using triggers and limits, the framework defines ambient air quality levels that help to guide long-term decision-making and air quality management. The first annual reports for the South Saskatchewan Region Air Quality Management Framework have been finalized. These reports provide information on ambient conditions as well as an update on progress of the management response after the Minister's Determination confirmed that some air quality triggers (not limits) were crossed at two monitoring stations for NO₂ in 2014.

SSRP Outcome 3: Biodiversity and ecosystem function are sustained through shared stewardship

3. Complete the South Saskatchewan Region Biodiversity Management Framework

Alberta Environment and Parks – due 2015; deferred to 2017

Biodiversity management frameworks seek to maintain terrestrial and aquatic biodiversity while also supporting social and economic objectives for the region. Frameworks represent a systematic approach to biodiversity management.

A draft South Saskatchewan Biodiversity Management Framework was completed in November 2015. The draft framework identifies regional objectives as well as a suite of terrestrial and aquatic biodiversity indicators. The indicators will be monitored, evaluated and reported against trigger values to help assess whether biodiversity objectives are achieved. Also, the framework establishes monitoring and reporting practices, proactive management actions to be taken now, and a management response process to be used as needed in the future.

An engagement process in November and December 2015 solicited feedback on the draft framework. This followed the engagement held earlier in the year. Based on input received, the framework will be revised and anticipated to be finalized for government approval and implementation in 2017.

4. Develop a linear footprint management plan for Green Area and White Area public lands with priority planning for the Porcupine Hills and Livingstone areas

Alberta Environment and Parks - due 2015; deferred to 2017

Linear footprint management plans direct decision-making and management of linear features, such as roadways, transmission lines, pipelines, industrial sites or cut-blocks, on public lands in the South Saskatchewan Region. In 2015, Alberta Environment and Parks began working with communities, industry, other stakeholders and indigenous peoples to develop comprehensive and integrated Linear Footprint and Recreation Management Plans for Porcupine Hills and Livingstone areas. Delivery of the Livingstone and Porcupine Hills Linear Footprint Management Plan is anticipated for 2017. These plans will bridge the policy intent of the SSRP and other provincial legislation and policy with operational requirements to enable “on the ground” decision-making.

5. Complete a linear footprint management plan for Green Area and White Area public lands for remaining areas

Alberta Environment and Parks – due 2017; deferred to 2018

Linear footprint management plans outline a system that minimizes the duration, extent and rate of linear footprint development in order to meet SSRP and biodiversity management framework objectives. For Green Area public lands along the Rocky Mountains, linear footprint management plans consider recreation management and species recovery; while plans for the White Area public lands covering the balance of non-private land within the region consider voluntary conservation offsets and similar tools. Planning for other Green Area public lands and White Area public lands in southeast Alberta is deferred.

6. Review Integrated Resource Plans in the region for their relevance and incorporate under this regional plan

Alberta Environment and Parks – due 2015; completed in 2015

Alberta Environment and Parks completed the review of the following sub-regional Integrated Resource Plans to determine the relevance of each plan and assess the opportunity to incorporate it within the SSRP: Kananaskis, Ghost River, Livingstone-Porcupine Hills, Castle River, Poll Haven Local, Bow Corridor Local, Eden Valley Local, and Crowsnest Corridor Local. Also, the Eastern Irrigation District Integrated Resource Management Strategy was reviewed. Recommendations were made to align, discard or redirect provisions within each of the plans and appropriate action was undertaken. Results will be assessed in 2016 by sub-regional and issue-specific planning teams to ensure the recommendations are fully addressed and plans are fully incorporated.

7. Complete the Majorville Guidelines for Land and Resource Management

Alberta Environment and Parks – due 2015; completed in 2015

Majorville Guidelines for Land and Resource Management is an operational plan that recognizes the area for its heritage values, First Nations traditional use and unique native prairie biodiversity within existing agricultural and industrial developments. Guidelines encourage resource development to reduce its footprint and avoid or minimize impacts to sensitive environmental and cultural areas; including those on lands important to indigenous peoples. The Majorville Guidelines were completed and approved in

2015. They are expected to become effective in 2016 and implemented in a regulatory process involving Alberta Environment and Parks and Alberta Energy Regulator. To support this implementation, an Access Management Plan will be developed for the area in 2017.

8. Establish new or expand existing conservation areas on provincial Crown land

Alberta Environment and Parks – as soon as practicable

Work is underway to complete the designation of new and expanded conservation areas on provincial Crown land, to manage conserved lands in order to achieve long-term conservation of biological diversity and ecosystem processes, and to explore further opportunities for collaborative conservation management approaches in the grasslands areas. Last year, collaborative work began on the Twin River Heritage Rangeland Natural Area and the OneFour Heritage Rangeland Natural Area. Exploration of other conservation approaches and tools to conserve grasslands was also initiated in the fall of 2015.

Also in 2015, public consultation was completed to formally designate a Wildland Provincial Park and Provincial Park in the Castle Region. In 2016, management planning for these parks and formal designation of other conservation areas will continue. In some cases, designation remains dependent upon completing the cancellation and compensation process for surface and subsurface agreements while in other cases, surface dispositions unrelated to energy must be reviewed to ensure compatibility with the intent of a conservation area. Once these factors are addressed, the new and expanded conservation areas of Don Getty, Bow Valley, Bluerock, High Rock, Bob Creek and Livingstone Range Wildland Provincial Parks will be designated under the *Provincial Parks Act*. Pekisko Heritage Rangeland will be designated under the *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangeland Act*.

9. Establish the Pekisko Special Management Area and complete a management plan

Alberta Environment and Parks – due 2015; deferred to 2017

A working group was established in fall 2015 to develop a draft management plan for the Pekisko Heritage Rangeland and Special Management Area. The draft management plan, expected to be completed in the summer of 2016, will identify management objectives and strategies for a variety of applicable land and resource objectives. Public, stakeholder and First Nations consultation is anticipated to occur in fall 2016 with completion of the final plan targeted for 2017.

10. Complete the development and evaluation of the Southeast Alberta Conservation Offset Pilot

Alberta Agriculture and Forestry – due 2015; completed in 2015

In 2015, Alberta Agriculture and Forestry completed the Southeast Alberta Conservation Offset Pilot project and evaluation. The pilot was developed to test voluntary conservation offsets of new industrial impacts on native prairie. The pilot included the development of a workable approach to quantify new industrial site offset requirements and to target offset habitat project development on privately owned agricultural lands with the greatest benefit for biodiversity and species at risk. The pilot also endeavored to determine agricultural landowner costs and barriers to participation. The approach also describes the role of a third party to facilitate habitat development and associated conservation offset obligations. The final report is complete and available at: [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/luf16135](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/luf16135).

SSRP Outcome 4: Watersheds are managed to support healthy ecosystems and human needs through shared stewardship

11. Implement the South Saskatchewan Region Surface Water Quality Management Framework

Alberta Environment and Parks – due 2014; completed in 2014

The Surface Water Quality Management Framework monitors and manages long-term cumulative changes in water quality within the main stem rivers of the region. It was developed as part of the SSRP to complement, but not replace, existing provincial environmental policy, legislation and regulation, and to help achieve desired regional objectives. Also, it complements, but does not replace existing management systems such as those involving spill reporting or drinking water surveillance. The first annual reports under the South Saskatchewan Region Surface Water Quality Management Framework were finalized. The reports provide information on ambient conditions in 2014-2015 as well as an update on the management response after the Minister's Determination confirmed that some water quality triggers (not limits) were crossed at three monitoring stations. More information is available within the Water Quality indicator found near the end of this report.

12. Develop a comprehensive approach for groundwater management

Alberta Environment and Parks – due 2017; on track for completion in 2017

In November 2015, through a public Request for Proposals process, Alberta Environment and Parks identified an external team to work with an internal advisory team established earlier in the year, to develop a Groundwater Management Framework template. The template provides direction necessary to advance a groundwater approach in the South Saskatchewan Region. Together these two teams now form the Hydrogeology Expert Committee which will focus on developing and refining the template in 2017. A comprehensive groundwater management approach will be developed by 2017.

13. Develop a water storage opportunities study for the South Saskatchewan River Basin

Alberta Agriculture and Forestry – due 2015; completed in 2015

In 2015, Alberta Agriculture and Forestry contracted a consultant to lead a water storage opportunities study for the South Saskatchewan River Basin. The study assessed previously identified potential storage sites and concluded that there was limited opportunity for additional storage to improve future water security in southern Alberta. The study analysis and results will inform future planning and decision-making regarding possible development of additional water storage sites as well as the assessment of both on-stream and off-stream storage sites. Water storage is critical to water management in the South Saskatchewan River Basin and optimizing water management will continue to be a priority in this region. The final report is available here: [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/luf16137](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/luf16137).

SSRP Outcome 5: Land is used efficiently to reduce the amount of area that is taken up by permanent or long-term developments associated with the built environment

14. Strategies are ongoing (and includes building awareness and understanding of efficient use of land principles)

Alberta Municipal Affairs – implementation is ongoing

In 2014, the Government of Alberta completed a review of tools and best practices by municipalities in Alberta and other jurisdictions. Results of this review were compiled in the *Efficient Use of the Land Implementation Tools Compendium* to serve as a resource for land-use planners, land users and decision-makers involved in land management planning and decision-making on public and private land. In 2015, Alberta municipalities continued to implement efficient use of land strategies and explore tools such as Transfer of Development Credits to help reduce the footprint of Alberta's built environment and promote orderly development. This approach is complemented by Alberta Environment and Parks' Integrated Land Management approach which focuses on more efficient use of land while developing resources on public lands.



Provincial Outcome: People-friendly communities with ample recreational and cultural opportunities

SSRP Outcome 6: The quality of life of residents is enhanced through increased opportunities for outdoor recreation and the preservation and promotion of the region's unique cultural and natural heritage

15. Develop the South Saskatchewan Regional Trail System Plan

Alberta Environment and Parks – as soon as practicable

Development of the South Saskatchewan Regional Trail System Plan continued in 2015. Developing a plan entails evaluation of recreational trail demands, existing trails inventory, trail system design options and scenarios, the class and desired experience and management objective for each trail, and existing legislative options as well as drafting, assessing, implementing and enforcing the entire plan with the help of trail groups and stewards. In 2015, linear data was collected along major access roads for proposed trail networks within the entire Porcupine Hills area and about one-quarter of the Livingstone area. Information for recreation features such as staging areas and random camping sites was also collected while policy and administrative processes related to approving dispositions for recreational trails was improved. This work directly contributes to development of the regional trails plan, provides better information about the current trail network, and helps trail groups, stewards and land managers by providing policy clarity and direction. Inventory work will continue in 2016- 2017 with a focus on the Livingstone area.

16. Address flood (2013) damaged recreation areas

Alberta Environment and Parks – as soon as practicable

Flooding in 2013 severely damaged park trails, campgrounds, day-use areas and facilities from the eastern slopes of the Rockies near Rocky Mountain House south to the Crowsnest Pass and east of Calgary along the Bow River. Provincial funds are now helping to rehabilitate these areas and facilities including the Kananaskis Golf Course and restoring infrastructure in provincial parks to pre-flood conditions. About 90 per cent of these costs are expected to be recovered through the Federal Disaster Recovery Program. In 2015, Alberta Environment and Parks completed 183 (or 67 per cent) of the 275 rehabilitation projects. 2016 work will focus on reconstructing trails and trail bridges, completing

restoration of Fish Creek Park in Calgary, and improving conditions in Sheep and Elbow Valleys. Kananaskis Golf Course reconstruction is scheduled to be completed by 2017 while all work identified in the 2013 Flood Recovery Project Plan is scheduled to be completed by 2018.

Alberta Environment and Parks is also leading flood recovery related initiatives such as the Backcountry Trails Flood Rehabilitation Program (BTFR) and Fisheries Habitat Enhancement and Sustainability (FISHES) Program. In 2014 and 2015, the BTFR program completed 78 projects which included installation of 71 bridges, restoration of 329 km of flood damaged trails, and the dedication of 2,639 volunteer hours to supporting the recovery. Over 100 additional projects are planned for 2016. The FISHES Program team completed their field assessments in 2015 and is expected to begin design and construction in 2016 with a focus on projects that will enhance or restore fish habitats impacted during the 2013 floods.

17. Complete recreation management planning for Porcupine Hills

Alberta Environment and Parks – due 2015; deferred to 2017

Since 2014 Alberta Environment and Parks has worked with communities, industry, and indigenous peoples to develop a comprehensive and integrated Recreation Management Plan for the Green Area (i.e., generally forested, public lands) within the region. Targeted stakeholder engagement and awareness sessions to support development of the recreational management plan for Porcupine Hills began in 2015. The first stage of work was completed in 2015. In 2016, additional trail and recreational information will be collected for Porcupine Hills and Livingstone areas and consultation sessions with municipalities and indigenous peoples will continue. Stage 2 engagement sessions are expected to be completed by mid-2016 and used as input to draft the plan. Stage 3 engagement sessions offering feedback on the draft plan are scheduled to occur in winter 2017 so the final plan may be in place by the end of that year. A new Public Land Use Zone is also expected to be established by the end of 2017.

18. Complete recreation management planning for Livingstone, Willow Creek, Allison/Chinook, McLean Creek and Sibbald areas

Alberta Environment and Parks – due 2016; deferred to 2018

Work has begun on developing a Recreational Management Plan for the Livingstone area which includes Livingstone, Willow Creek, and Allison/Chinook areas. Consultation and drafting of the Livingstone recreational management plan is scheduled for 2017 with delivery of the final plan anticipated in 2018. After this work is completed, the focus will shift to the McLean Creek and Sibbald areas.

19. Complete recreation management planning and/or update existing plans for other areas (including Castle, Ghost-Waiparous)

Alberta Environment and Parks – as soon as practicable

Alberta Environment and Parks will continue to complete Recreational Management Plans and update existing plans for key areas of the region such as the Ghost-Waiparous area, following completion of other Recreation Management Plans specifically identified within the regional plan. Timing will remain dependent upon development of the Recreation Management Plans for Porcupine Hills, Livingstone, McLean Creek, and Sibbald areas, as well as the Regional Trail System Plan and other related initiatives. In 2015, public consultation was completed to expand the existing Castle Wildland Provincial Park and create a new Provincial Park to support biodiversity and traditional land use as well as to enhance tourism and recreation opportunities. In 2016, management planning for the Castle area will continue.

20. Create Public Lands Recreation Areas in the eastern slopes areas

Alberta Environment and Parks – as soon as practicable

In 2015, Alberta Environment and Parks began identifying required sites and facilities along the eastern slopes of the Rocky Mountains and did so in conjunction with development of Recreation Management Plans described earlier in this report. This work includes conducting a detailed assessment of each site specifically identified within the regional plan. Through this work, resource requirements to establish the Public Land Recreation Areas will be identified. Also in 2015, Alberta Environment and Parks continued to lay the foundation that will allow enforcement officials to issue violation tickets under the Public Lands Administration Regulation in order to deter damage, defacement or destruction of any resource within a public land recreation area which is an issue along the eastern slopes. The Order in Council is expected to be established in 2016.

21. Invest in existing parks facilities and designate new Provincial Parks and Provincial Recreation Areas

Alberta Environment and Parks – as soon as practicable

To optimize the recreation and tourism potential for both residents and visitors, SSRP provides for three new Provincial Recreation Areas and five new Provincial Parks. Work on the formal designation of these recreation areas and provincial parks continued in 2015. In some cases, designation is dependent upon completion of the cancellation and compensation process for subsurface and surface agreements. In other cases, surface dispositions unrelated to energy need to be reviewed to ensure compatibility with the intent of a Provincial Park or Provincial Recreation Area. Once these factors are addressed, the new recreation areas of Elbow Valley, Sheep River, Chinook, Syncline and Cypress Hills Provincial Parks and the Sibbald Lake, Crowsnest Lake and Coleman Provincial Recreation Areas will be designated under the *Provincial Parks Act*. If designated, the Wildland Provincial Park and Provincial Park in the Castle region will be the main regional priority for management planning in 2016.

22. Develop a regional parks plan for the South Saskatchewan Region

Alberta Environment and Parks – due 2016; deferred to 2018

Regional parks plans provide broad management direction required to achieve the integrated recreation and conservation mandate of the Alberta Provincial Parks Program. They are roadmaps for planning and managing parks within specific Land-use Framework regions of Alberta. They provide a summary of recreation and conservation values on a site-by-site basis, an overview of existing recreational facilities, a detailed accounting of current commitments to pre-existing activities such as grazing and industrial activities, and specific instructions on how these will be managed. These plans also identify where further site-specific planning or management is needed as well as future opportunities for public engagement. As such, the plan is a starting point intended to provide Albertans with a clear picture and better understanding on the values of each park and the issues faced in retaining these values for present and future generations. Regional Parks Planning was initiated in 2014. The project was put on hold due to other emerging priorities such as the proposal to designate a Wildland Provincial Park and Provincial Park in the Castle region. The South Saskatchewan Regional Parks Plan is expected to be completed in 2018.

SSRP Outcome 7: Aboriginal peoples are included in land-use regional planning

23. Continue to establish a South Saskatchewan Region Land Sub-table with interested First Nations in the region

Alberta Environment and Parks – implementation is ongoing

In 2015, Alberta Environment and Parks and Alberta Indigenous Relations collaborated with a group of 13 First Nations, including elders and traditional knowledge holders, to exchange information and ideas, engage in discussion, and explore opportunities to deliver shared stewardship around the South Saskatchewan Region First Nations Sub-table. Terms of reference endorsed by First Nation chiefs and the Minister of Alberta Environment and Parks outlining joint priorities, strategic direction and opportunities for sharing traditional knowledge will help guide sub-table work in the future.

24. Continue First Nation involvement in watershed management planning initiatives

Alberta Environment and Parks – implementation is ongoing

Engagement of First Nations in water management planning activities will continue as part of ongoing delivery of the Water for Life Strategy and work of Alberta Environment and Parks. The Treaty 7 First Nations water table consists of First Nations (i.e., Blood Tribe, Piikani Nation, Siksika Nation, Stoney Bearspaw Band, Stoney Chiniki Band, and Stoney Wesley Band) peoples and provincial and federal government members. The purpose of this table is to better understand current and future water needs of Treaty 7 First Nations and work toward water agreements with interested First Nations. This forum provides an opportunity for all parties to discuss areas of alignment, best practices, water policy and implementation.

25. Continue to engage aboriginal peoples on initiatives to support tourism development

Alberta Culture and Tourism – implementation is ongoing

Alberta Culture and Tourism continues to manage Head-Smashed-In Buffalo Jump, a UNESCO World Heritage Site. Site personnel work closely with indigenous communities to offer cultural programs to engage visitors. In 2015, Alberta Culture and Tourism continued working with Alberta Indigenous Relations on the Castle Region Tourism Strategy to ensure appropriate engagement occurs with 13 First Nations in the South Saskatchewan Region.

26. Continue to encourage and facilitate information sharing and education opportunities between First Nations with an interest in the region and the Government of Alberta

Alberta Culture and Tourism and Alberta Environment and Parks – implementation is ongoing

In 2015, South Saskatchewan Region First Nations Sub-table participants including First Nations groups, Alberta Culture and Tourism, Alberta Environment and Parks, and Alberta Indigenous Relations began sharing maps, presentations, oral information and more to support discussions regarding allowable activities, including access to and hunting on Crown lands within the region. Information products help guide and inform communities of the opportunities to practice traditional uses, including the exercise of treaty rights, on lands within Alberta's provincial parks system.

SSRP Outcome 8: Community development needs are anticipated and accommodated

27. Continue to build awareness and work with municipalities to implement land-use strategies

Alberta Municipal Affairs – implementation is ongoing

The Land-use Policies under the *Municipal Government Act* were repealed when the SSRP was adopted by the Government of Alberta in 2014 and pre-existing land-use policy statements were updated and incorporated into the SSRP in order to guide future planning and decision-making by municipalities in the South Saskatchewan Region. Municipal planning efforts must continue to complement provincial policies and initiatives, especially as municipalities adjust to the changing planning structure and their new responsibilities with respect to the new planning legislation and regulation. In 2015, municipalities continued to implement these policies in the course of carrying out their planning responsibilities and began to assess potential amendments to their regulatory instruments in advance of the regulated 2019 due date to submit statutory compliance declarations.



Supporting Indicators

Detailed information about each supporting indicator identified in Table 1 of LARP and SSRP is presented here in alphabetical order.

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

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

Aboriginal peoples continue to be consulted when Alberta government 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.

LARP: In 2015, Land Use Secretariat, supporting the work of ministries responsible for implementation of LARP, held 12 meetings and workshops with aboriginal groups. Alberta Environment and Parks held an additional 14 meetings, workshops and engagements sessions with aboriginal groups to discuss the Biodiversity Management Frameworks and Landscape Management Plans. In 2015, work also continued with Fort McKay First Nation to explore a mutually beneficial management direction in preparation of the draft Moose Lake Access Management Plan.

SSRP: In 2015, Alberta Environment and Parks and Alberta Indigenous Relations met on three occasions with First Nations for two-day workshops during which nine implementation plans for Castle, Porcupine Hills and Livingstone areas, groundwater management, Milk River Watershed Management Plan, and watershed management as well as Pekisko, OneFour and Twin River Heritage Rangeland Natural Areas were discussed. Twelve of 13 First Nation groups attended these workshops and successfully developed a model for incorporating traditional ecological knowledge, traditional land use, indigenous stewardship practices, cultural community-based monitoring, treaty rights, and education. Additional meetings were held with First Nations to discuss development of the Biodiversity Management Framework.

Notes: Consultation is enabled through policies such as the Government of Alberta's Policy on Consultation with First Nations on Land and Natural Resource Management (2013).

Lead Ministries: Alberta Environment and Parks, Alberta Agriculture and Forestry, Alberta Energy, Alberta Culture and Tourism and Alberta Indigenous Relations

Source: Data about indigenous people are available from Alberta Indigenous Relations at indigenous.alberta.ca/InteractiveMap.cfm.

Agricultural Land Conversion

Definition: Total area in hectares of actual, observable land-use change from an agricultural use to a non-agricultural use. While some conversions can be temporary, such as upstream oil and gas development, only permanent loss of agricultural land, such as rural residential development, is being monitored in the agricultural regions of Alberta. The total agricultural land base includes public land managed for agriculture.

LARP: In 2015, the Lower Athabasca Region experienced a permanent net loss of 1,550 hectares of agricultural land during the year. This represents a decrease of 0.3 per cent from the total agricultural land base available in 2014.

SSRP: In 2015, the South Saskatchewan Region experienced a permanent net loss of 4,070 hectares of agricultural land. This represents a decrease of 0.06 percent from the total agricultural land base available in 2014.

Notes: This indicator reports on the total area, in hectares, of non-crown agricultural land for Alberta and each Land-use Framework region. Land excluded from the data includes First Nations Reserves, land owned or managed by the Department of National Defense, road allowances (according to the Alberta Township Survey), and permanent water. All source data are current as of December 2015. The data are also used to calculate agricultural land fragmentation. Although this indicator currently only applies to the Lower Athabasca and South Saskatchewan Regional Plan, data are reported for all regions in order to provide contextual information to Albertans.

Methodology: Using a Geographic Information System, Alberta Agriculture and Forestry assigned every parcel of land in Alberta to a discrete land-use class according to a defined rule set. The total area of each land class in each region was then calculated.

Lead Ministry: Alberta Agriculture and Forestry

Source: Data, methodology and information regarding sources of error are available from Alberta Agriculture and Forestry agric.gov.ab.ca/landuse.

LUF Region	Area of Agricultural Land (Hectares)									
	2011	2012	y/y change	2013	y/y change	2014	y/y change	2015	y/y change	Total Change 2011-2015
Lower Athabasca	545,850	545,260	-590	544,520	-740	543,930	-590	542,380	-1,550	-3,470
South Saskatchewan	6,147,680	6,128,200	-19,480	6,132,960	4,760	6,144,480	11,520	6,140,410	-4,070	-7,270
North Saskatchewan	5,153,380	5,151,580	-1,800	5,160,780	9,200	5,160,400	-380	5,158,570	-1,830	5,190
Lower Peace	789,510	816,430	26,920	817,260	830	818,140	880	807,340	-10,800	17,830
Upper Peace	2,185,110	2,183,800	-1,310	2,183,360	-440	2,181,400	-1,960	2,179,490	-1,910	-5,620
Upper Athabasca	1,844,470	1,844,390	-80	1,843,000	-1,390	1,840,390	-2,610	1,837,040	-3,350	-7,430
Red Deer	4,347,670	4,354,340	6,670	4,355,220	880	4,356,740	1,520	4,359,380	2,640	11,710
Alberta	21,013,670	21,024,000	10,330	21,037,100	13,100	21,045,480	8,380	21,024,610	-20,870	10,940

Agricultural Land Fragmentation

Definition: Tracks the increase in the number of agricultural land parcels that are between 10 and 80-acres in size. Fragmentation of agricultural land occurs when once contiguous agricultural areas become divided into separate fragments isolated from each other by other, non-agricultural land uses.

LARP: In 2015, the number of parcels 10 to 80 acres in size increased 0.89 percent to 2,958 parcels. This value reflects 14.5 percent of all parcels (approximately 20,414 parcels) located in the Lower Athabasca Region, and has grown slightly over the 2011 to 2015 period.

SSRP: In 2015, the number of parcels 10 to 80 acres in size increased 0.22 percent to 28,915 parcels. This value reflects 16.2 percent of all parcels (approximately 178,362 parcels) located in the South Saskatchewan Region, and has remained relatively stable at that value over the 2011 to 2015 period.

Notes: This indicator reports on the number of parcels within discrete size categories for all of Alberta and for each Land-use Framework region. Only land within the agricultural land-use class that was derived during conversion monitoring (i.e., titled parcels 10 to 240 acres in size) was used for parcel number calculations. All source data are current as of December 2015. Although this indicator only applies to LARP and SSRP, data are reported for all regions in order to provide contextual information to Albertans.

Methodology: Using a Geographic Information System, Alberta Agriculture and Forestry assigned all agricultural land-use class parcels in Alberta, as calculated by Agriculture and Forestry's conversion methodology, to discrete categories between 10 and 240 hectares in size.

Lead Ministry: Alberta Agriculture and Forestry

Source: Data, methodology and information regarding sources of error are available from Alberta Agriculture and Forestry agric.gov.ab.ca/landuse.

LUF Region	Number of Agricultural Land Parcels (10-80 Acres in Size)				
	2011	2012	2013	2014	2015
Lower Athabasca	2,805	2,952	2,888	2,932	2,958
South Saskatchewan	28,785	29,233	28,783	28,850	28,915
North Saskatchewan	28,983	29,693	29,873	30,211	30,573
Lower Peace	2,422	2,520	2,550	2,601	2,607
Upper Peace	6,529	6,803	6,818	6,928	7,082
Upper Athabasca	9,705	10,131	10,141	10,290	10,423
Red Deer	11,618	11,665	11,992	12,134	12,264
Alberta	90,847	92,997	93,045	93,946	94,822

Air Quality

Definition: Ambient air quality triggers and limits for substances of concern within the region are based on Alberta Ambient Air Quality Objectives. These are provincial objectives designed to protect human health and the environment. The limits represent levels beyond which ambient air quality concentrations are unacceptable. The triggers are signals in advance of the limits that allow for evaluation, adjustment and innovation on an ongoing basis.

LARP: In 2015, two air quality indicators, nitrogen dioxide (NO₂) and sulfur dioxide (SO₂) were continuously measured at air monitoring stations. Preliminary results for the indicators used to manage ambient air quality, that:

- No limits were exceeded for air quality indicators;
- Triggers were crossed at 7 air monitoring stations for NO₂ and/or SO₂.

SSRP: In 2014, three air quality indicators, nitrogen dioxide (NO₂), fine particulate matter (PM_{2.5}) and ozone (O₃) were continuously measured at air monitoring stations. The Minister of Environment and Parks determined, relative to the triggers and limits for the indicators used to manage ambient air quality indicate, that:

- No limits were exceeded for NO₂;
- Triggers were crossed at 2 air monitoring stations for NO₂.

The assessment of condition relative to triggers and limits for PM_{2.5} and O₃ in the South Saskatchewan Region for 2015 has not been completed yet because the analysis is still underway.

Notes: Triggers are established to allow for proactive management. The finding of trigger exceedances does not signal that environmental conditions have placed human health or the environment at risk. Where triggers were crossed, Alberta Environment and Parks is committed to undertaking proactive management responses that will ensure air quality is managed at acceptable levels. The SSRP air quality management framework did not exist before 2014.

Lead Ministry: Alberta Environment and Parks

Source: Air quality data are available from Alberta Environment and Parks. The management framework and reports are also at: aep.alberta.ca/lands-forests/cumulative-effects/regional-planning/default.aspx.

LUF Region	Number of Air Quality Monitoring Stations			
	2012	2013	2014	2015
Lower Athabasca				
Triggers crossed	10	11	10	7
Limits exceeded	0	0	0	0
South Saskatchewan				
Triggers crossed			2	N/A
Limits exceeded			0	N/A

Biodiversity

Definition: Biodiversity is the assortment of life on earth. The most commonly referenced types of biodiversity include: genetic diversity (i.e., the sum of genetic information contained in individuals and in populations); species diversity (i.e., the number of biological organisms and their relative abundance) and ecosystem diversity (i.e., the variety of habitats, biotic communities, landscapes and ecological processes).

Notes: This indicator is under development and will be available as a part of the final Biodiversity Management Frameworks for the regions. The Biodiversity Management Frameworks will use indicators of biodiversity to help determine whether overall biodiversity objectives are being met. The indicators monitored under the framework represent key terrestrial and aquatic species and habitats, and they help us understand the condition of terrestrial and aquatic ecosystems in the region. By assessing the performance of each indicator against trigger values, there is a quantitative basis for evaluating biodiversity condition.

Lead Ministry: Alberta Environment and Parks

Source: Reporting on Biodiversity Management Framework indicators will start following the completion of the frameworks; in the interim, biodiversity data are available from Alberta Biodiversity Monitoring Institute (abmi.ca) and Alberta Environment and Parks (aep.alberta.ca).

Building Permits

Definition: The value of construction intentions for buildings in the non-residential and residential sectors.

LARP: In the Lower Athabasca Region, there were 2,486 building permits issued with a total value of \$984 million in 2014, a value decrease of 22.7 per cent from 2013. The value of building permits in the Lower Athabasca Region accounted for 5.4 per cent of the provincial total.

SSRP: In the South Saskatchewan Region, there were 28,554 building permits issued with a total value of \$8,300 million in 2014, a value increase of 3.8 per cent from 2013. The value of building permits in the South Saskatchewan Region accounted for 45.8 per cent of the provincial total.

Notes: The data are obtained from a monthly survey of Canadian municipalities. Although this indicator only applies to the SSRP, data are reported for all regions in order to provide contextual information.

Lead Ministry: Economic Development and Trade

Source: Data are available from Alberta Economic Development and Trade's Regional Dashboard (regionaldashboard.alberta.ca/#/).

LUF Region	Number of Building Permits								
	2010	2011	y/y change	2012	y/y change	2013	y/y change	2014	y/y change
Lower Athabasca	3,030	2,651	-12.5%	3,000	13.2%	2,828	-5.7%	2,486	-12.1%
South Saskatchewan	25,294	23,505	-7.1%	26,298	11.9%	27,697	5.3%	28,554	3.1%
North Saskatchewan	17,823	17,782	-0.2%	20,532	15.5%	21,150	3.0%	24,423	15.5%
Lower Peace	387	310	-19.9%	355	14.5%	263	-25.9%	294	11.8%
Upper Peace	1,705	1,606	-5.8%	2,158	34.4%	1,968	-8.8%	2,334	18.6%
Upper Athabasca	928	930	0.2%	672	-27.7%	743	10.6%	814	9.6%
Red Deer	3,486	3,442	-1.3%	3,607	4.8%	4,064	12.7%	4,127	1.6%
Alberta	52,653	50,226	-4.6%	56,622	12.7%	58,713	3.7%	63,032	7.4%

LUF Region	Value of Building Permits (\$Millions)								
	2010	2011	y/y change	2012	y/y change	2013	y/y change	2014	y/y change
Lower Athabasca	\$1,542	\$1,232	-20.1%	\$1,663	34.9%	\$1,273	-23.5%	\$984	-22.7%
South Saskatchewan	\$4,300	\$5,900	37.2%	\$6,200	5.1%	\$8,000	29.0%	\$8,300	3.8%
North Saskatchewan	\$4,459	\$4,430	-0.7%	\$5,339	20.5%	\$6,158	15.3%	\$7,084	15.0%
Lower Peace	\$103	\$89	-13.6%	\$138	55.1%	\$98	-29.0%	\$92	-6.1%
Upper Peace	\$321	\$433	34.9%	\$541	24.9%	\$611	12.9%	\$614	0.5%
Upper Athabasca	\$197	\$190	-3.6%	\$119	-37.4%	\$214	79.8%	\$285	33.2%
Red Deer	\$453	\$485	7.1%	\$646	33.2%	\$668	3.4%	\$776	16.2%
Alberta	\$11,375	\$12,759	12.2%	\$14,646	14.8%	\$17,022	16.2%	\$18,135	6.5%

Business Establishments

Definition: The number of businesses with employees on record at a particular point in time.

LARP: In 2014, 4,211 establishments with employees were registered in the Lower Athabasca Region. This represents a 13 per cent increase from 3,730 in 2013.

SSRP: In 2014, 75,549 establishments with employees were registered in the South Saskatchewan Region. This represents a 5 per cent increase from 71,686 in 2013.

Notes: This indicator is based on data from Statistics Canada, Canadian Business Patterns. Although this indicator only applies to the SSRP, data are reported for all regions in order to provide contextual information to Albertans.

Lead Ministry: Economic Development and Trade

Source: Data are available from Alberta Economic Development and Trade's Regional Dashboard (regionaldashboard.alberta.ca/#/). Data are sourced from Statistics Canada's Business Register.

LUF Region	Number of Businesses								
	2010	2011	y/y Change	2012	y/y Change	2013	y/y Change	2014	y/y Change
Lower Athabasca	3,383	3,358	-1%	3,482	4%	3,730	7%	4,211	13%
South Saskatchewan	65,662	65,841	0%	67,406	2%	71,686	6%	75,549	5%
North Saskatchewan	54,683	54,319	-1%	55,988	3%	60,508	8%	62,997	4%
Lower Peace	1,320	1,313	-1%	1,322	1%	1,407	6%	1,460	4%
Upper Peace	7,294	7,277	0%	7,444	2%	8,038	8%	8,408	5%
Upper Athabasca	6,420	6,302	-2%	6,540	4%	7,041	8%	7,311	4%
Red Deer	11,901	11,946	0%	12,128	2%	12,346	2%	13,136	6%
Alberta	150,663	150,356	0%	154,310	3%	164,756	7%	173,072	5%

Conserved Land (Area)

Definition: Total combined area of conserved land on public lands and public land use tools that have conservation as the primary management intent under other provincial legislation.

LARP: The LARP provided for six new conservation areas in 2012, bringing the total conserved land in the region to 2,090,278 hectares, or 22 per cent of the 9,321,247 hectare region. The area of conserved land has not changed since the plan came into effect in 2012.

SSRP: The SSRP provided for eight new conservation areas in 2014, bringing the total conserved land in the region to 428,194 hectares, or 5 per cent of the 8,377,421 hectare region. The area of conserved land has not changed since the plan came into effect in 2014 but may in the future.

Notes: Conserved land on public lands refers to land designated for conservation under the *Provincial Parks Act*; the *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act*; and the *Wilmore Wilderness Park Act*. In addition, a number of tools are available for the management of lands for conservation purposes under other legislation, such as the *Public Lands Act*. Both are combined for this indicator.

Although this indicator has been reported for the Lower Athabasca Region, it currently only applies to the SSRP. It will continue to be reported for the Lower Athabasca Region in order to provide contextual information to Albertans.

Methodology: A new methodology is being used to calculate the number of hectares of conservation area in each Land-use Framework region. This has resulted in some slight changes to the numbers previously reported for the Lower Athabasca Region. As such, there are no changes to the conservation areas on the landscape, but the numbers being reported have altered due to the change in analysis methodology.

Lead Ministry: Alberta Environment and Parks

Source: Data are available from Alberta Environment and Parks (albertaparks.ca/albertaparksca/management-land-use.aspx).

Construction (Cost of)

Definition: Investment associated with major private and public sector infrastructure projects in Alberta valued at \$5 million or greater that are currently under construction or are proposed to start construction within two years.

LARP: In 2015, 55 of 101 projects that were proposed, planned, under construction or recently completed in the Lower Athabasca Region were related to infrastructure. The total cost for infrastructure projects in the Lower Athabasca Region was \$1.8 billion or about two per cent of all major construction projects (valued at \$90.1 billion) in the region. Twelve pipeline projects accounted for \$7.2 billion while oil sands construction projects accounted for \$81.1 billion. Lower Athabasca accounted for about 43 per cent of the total value of Alberta projects.

Notes: The method used to create this estimate has been updated, thus estimates reported previously are not comparable. Estimates from previous years have been back-casted using the current methodology for trending purposes. This indicator only applies to the LARP.

For related information, refer to Building Permits, Inventory of Major Projects, Oil Sands Investment and Cost of Living indicators for more information.

Lead Ministry: Further information is available through Alberta Infrastructure

Source: Data are available from the Government of Alberta's Major Projects Map at Major Projects Map (majorprojects.alberta.ca), Alberta Innovation and Advanced Education (albertacanada.com/business/statistics-and-publications.aspx) and the Economic Dashboard (economicdashboard.albertacanada.com).

Lower Athabasca Region	2012		2013		2014		2015	
	Number	Value (\$B)						
Total Major Projects	126	\$123.2	121	\$122.3	100	\$108.6	101	\$90.1
Infrastructure Projects	57	\$3.1	55	\$9.3	38	\$1.3	55	\$1.8
Oil Sands Projects	53	\$111.8	53	\$110.1	47	\$96.0	34	\$81.1
Pipeline Projects	15	\$8.3	13	\$10.3	15	\$11.2	12	\$7.2

Cost of Living

Definition: The Consumer Price Index (CPI) is indicator of the changes in consumer prices experienced by Albertans. It is obtained by comparing, through time, the cost of a fixed basket of commodities purchased by consumers in a particular year. Since the basket contains commodities of unchanging or equivalent quantity and quality, the index reflects only pure price changes. When prices rise, it means the purchasing power of money drops. When prices drop, it means the purchasing power of money increases.

Alberta: The all-items Consumer Price Index (CPI) for Alberta rose from 132.2 in 2014 to 133.7 in 2015, indicating that consumer prices increased 1.1 per cent in 2015, compared with 2.6 per cent inflation in 2014. Prices for food went up 3.7 per cent, but these price increases were partially offset by declines in energy prices (down 14.5 per cent); meanwhile, prices for shelter remained essentially flat (up 0.2 per cent).

Notes: Data for this indicator is not available at the regional level so data for Alberta as a whole is used as a proxy for the Lower Athabasca Region. The Government of Alberta last conducted a spatial price survey in 2010, through which several price indices were developed for various Alberta communities. Based on the 2010 survey results, the Lower Athabasca Region posted the highest relative consumer prices among the seven regions. This indicator only applies to the LARP. For related information, refer to the Income and Rental Affordability indicators.

Lead Ministry: Alberta Treasury Board and Finance

Source: Data are available from Statistics Canada (<http://www.statcan.gc.ca/pub/62-001-x/62-001-x2016010-eng.htm>) and the Economic Dashboard (economicdashboard.albertacanada.com).

Efficient Use of Land

Definition: Efficient use of land is a strategy that promotes reducing the footprint of human activities on Alberta's landscape. The objective is to minimize over time the amount of land that is required for development of the built environment.

It recognizes "land is a limited non-renewable resource and so should not be wasted. Land-use decisions should strive to reduce the human footprint on Alberta's landscape. When it comes to land, other things being equal, less is more – more choices for future generations. This principle should guide all areas of land-use decision-making: urban and rural residential development, transportation and utility corridors, new areas zoned for industrial development and agriculture" (Land-use Framework 2008).

In 2015, the Government of Alberta continued to endorse the following six guiding principles for the Efficient Use of Land Strategy:

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

And has made progress in promoting the efficient use of land through the Integrated Land Management Tools Compendium (2012) focused on reducing the physical footprint of development on public lands; and the Efficient Use of Land Implementation Tools Compendium (2014) which is a collection of voluntary tools and best practices that private landowners and municipalities can use to minimize growth of the human footprint on their lands.

Notes: This indicator is under development.

Lead Ministry: Alberta Municipal Affairs

Source: Efficient Use of Land Implementation Tools Compendium (2014) is available at landuse.alberta.ca/ConservationStewardship/EfficientUseOfLand.

Employment

Definition: Employment refers to the number of people who worked for pay or profit, performed unpaid domestic work, or had a job but were not able to work due to legitimate absence.

LARP: Between 2013 and 2014, the number of people employed in the Lower Athabasca Region rose from 118,175 to 120,038, an increase of 1.6 per cent.

SSRP: Between 2013 and 2014, the number of people employed in the South Saskatchewan Region rose from 947,998 to 970,629, an increase of 2.4 per cent.

Notes: Refer to the Labour Force indicator in this report for more information. Although this indicator only applies to the SSRP, data are reported for all regions in order to provide contextual information to Albertans.

Lead Ministry: Alberta Treasury Board and Finance

Source: Data are available from Alberta Labour (work.alberta.ca/documents/annual-alberta-regional-labour-market-review.pdf). Provincial figures are available from Government of Alberta's Economic Dashboard (economicdashboard.albertacanada.com and albertacanada.com/business/statistics-and-publications.aspx).

LUF Region	Number of People Employed								
	2010	2011	y/y Change	2012	y/y Change	2013	y/y Change	2014	y/y Change
Lower Athabasca	101,132	109,301	8.1%	116,811	6.9%	118,175	1.2%	120,038	1.6%
South Saskatchewan	869,233	896,753	3.2%	925,903	3.3%	947,998	2.4%	970,629	2.4%
North Saskatchewan	761,868	791,929	3.9%	820,833	3.6%	845,173	3.0%	863,981	2.2%
Lower Peace	15,205	15,739	3.5%	16,133	2.5%	16,095	-0.2%	16,147	0.3%
Upper Peace	70,634	73,307	3.8%	75,076	2.4%	75,451	0.5%	76,220	1.0%
Upper Athabasca	47,051	48,703	3.5%	49,393	1.4%	49,587	0.4%	49,726	0.3%
Red Deer	159,577	164,569	3.1%	168,751	2.5%	172,621	2.3%	176,859	2.5%
Alberta	2,024,700	2,100,300	3.7%	2,172,900	3.5%	2,225,100	2.4%	2,273,600	2.2%

First Nations (Participation Rate) in the Richardson Initiative

Definition: Involvement of First Nations in the Richardson Backcountry Stewardship Initiative considers 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.

LARP: In 2015, initial meetings were held with First Nations, Alberta Environment and Parks and Alberta Indigenous Relations to discuss cooperative management in the Richardson Wildland Provincial Park and Birch Mountain Wildland Provincial Park, an Aboriginal Guardian Program for both parks and a cooperative management approach for the Ronald Lake Bison Herd. Additionally, Alberta Indigenous Relations and Athabasca Chipewyan First Nation identified priority issues to explore through the initiative's working group. Draft Terms of Reference will be presented to the Richardson Backcountry Stewardship Initiative Steering Committee in 2016.

Notes: This indicator is not expressed as a rate. Government of Alberta invites all First Nations who have an interest in the Richardson Backcountry to be involved in this sub-regional initiative.

Lead Ministries: Alberta Environment and Parks, Alberta Agriculture and Forestry, Alberta Energy, Alberta Culture and Tourism and Alberta Indigenous Relations

Source: Data about indigenous peoples are available from Alberta Indigenous Relations (indigenous.alberta.ca/InteractiveMap.cfm).

Fluid Fine Tailings (Volume)

Definition: Fluid fine tailings refers to any fluid discard from bitumen extraction facilities containing more than 5 mass per cent suspended solids and having less than an un-drained shear strength of 5 kilopascals. The term ‘fluid tailings’ is used synonymously with ‘fluid fine tailings.’

LARP: In 2015, the volume of fluid tailings reported by industry was 1,134 million cubic meters. This is an increase of 57 million cubic meters from 2014, when the reported volume was 1,075 million cubic meters. In December 2013, there were approximately 976 million cubic metres of fluid tailings contained within tailings ponds in the Lower Athabasca Region, with a net cumulative footprint of about 220 square kilometres including dykes, berms, beaches and in-pit ponds.

The previous estimate of projected fluid tailings volume for 2014 had been 1,028 million cubic meters. This estimate was based on volume in industry reports for 2013 with total of 976 million cubic meters and previous annual growth of approximately 52 million cubic meters. Discrepancies are likely the result of the change in definition of fluid tailings affirmed by the new Tailings Management Framework for the Mineable Athabasca Oil Sands and previous interpretations by industry.

Notes: The Tailings Management Framework for the Mineable Athabasca oil sands area was approved and implemented by Government of Alberta in early 2015. A supporting guideline will be developed to guide the setting of fluid tailings volume profiles and management thresholds.

Lead Ministry: Alberta Environment and Parks

Source: Data are available from Alberta Environment and Parks (aep.alberta.ca). The management framework is available at: aep.alberta.ca/lands-forests/cumulative-effects/regional-planning/lower-athabasca.aspx.

Gross Domestic Product

Definition: The total unduplicated value of the goods and services produced in the economic territory of a country or region during a given period (estimated).

LARP: In 2014, Lower Athabasca Region's GDP was estimated at \$24,726 million, an increase of 5.6 per cent over the previous year's estimate of \$23,422 million.

SSRP: In 2014, South Saskatchewan Region's GDP was estimated at \$131,318 million, an increase of 4.7 per cent over the previous year's estimate of \$125,463 million.

Notes: GDP estimates are in constant 2010 dollars. The method used to create this estimate has been updated, thus estimates reported previously are not comparable. Estimates from previous years have been back-casted using the current methodology for trending purposes.

Methodology: Regional provincial gross domestic product (GDP) estimates were based on provincial-level GDP by Industry data, coupled with employment profiles according to the 2011 National Household Survey and Labour Force Survey data. Annual GDP estimates by region were then projected forward based on provincial-level GDP by Industry data and three-year moving average employment changes according to the Labour Force Survey.

Lead Ministry: Alberta Treasury Board and Finance

Source: Alberta Treasury Board and Statistics Canada (National Household Survey, Labour Force Survey). Data are also available from Government of Alberta's Economic Dashboard (economicdashboard.albertacanada.com).

LUF Region	GDP (\$Millions)								
	2010	2011	y/y Change	2012	y/y Change	2013	y/y Change	2014	y/y Change
Lower Athabasca	\$20,802	\$22,786	9.5%	\$22,508	-1.2%	\$23,422	4.1%	\$24,726	5.6%
South Saskatchewan	\$109,273	\$115,484	5.7%	\$120,631	4.5%	\$125,463	4.0%	\$131,318	4.7%
North Saskatchewan	\$84,381	\$90,344	7.1%	\$94,948	5.1%	\$100,772	6.1%	\$105,269	4.5%
Lower Peace	\$2,068	\$2,223	7.5%	\$2,261	1.7%	\$2,331	3.1%	\$2,436	4.5%
Upper Peace	\$10,379	\$11,229	8.2%	\$11,422	1.7%	\$11,789	3.2%	\$12,380	5.0%
Upper Athabasca	\$6,066	\$6,530	7.7%	\$6,618	1.3%	\$6,823	3.1%	\$7,103	4.1%
Red Deer	\$19,891	\$21,274	7.0%	\$22,126	4.0%	\$23,229	5.0%	\$24,034	3.5%
Alberta	\$252,860	\$269,870	6.7%	\$280,514	3.9%	\$293,830	4.7%	\$307,265	4.6%

Groundwater

Definition: The Groundwater Management Framework for the Lower Athabasca Region is intended to provide a system, involving triggers and limits, to manage non-saline groundwater resources.

LARP: The Groundwater Management Framework is now in place. The Groundwater Management Framework requires ongoing monitoring of the current network and the completion of regional monitoring networks for the North Athabasca Oil Sands (NAOS) Area, South Athabasca Oil Sands (SAOS) Areas, and Cold-Lake-Beaver River (CLBR) Area (as per LARP Schedule C). Final indicators and associated triggers are currently under development.

Notes: This indicator only applies to the LARP.

Lead Ministry: Alberta Environment and Parks

Source: Groundwater quantity and quality data and information are available from Alberta Environment and Parks (aep.alberta.ca). The management framework is available at: <http://aep.alberta.ca/lands-forests/cumulative-effects/regional-planning/lower-athabasca.aspx>.

Historic Resources

Definition: The total number of Provincial Historic Resources assessed and/or designated. Historic resources may include any works of nature or of humans that are primarily of value for their palaeontological, archaeological, prehistoric, historic, cultural, natural, scientific or aesthetic interest.

LARP: In 2015, there were 23 permits and requirements issued for Historic Impact Assessments, and a total of 84 historic sites that were either re-assessed or newly discovered. The total number of designated Provincial Historic Resources in the region is 14, and no new sites were designated in 2015.

SSRP: In 2015, there were 86 permits and requirements issued for Historic Impact Assessments, and a total of 200 historic sites that were either re-assessed or newly discovered. The total number of designated Provincial Historic Resources in the region is 163, and 2 new sites were designated in 2015.

Notes: Figures exclude historic sites designated by federal and municipal governments. Under the *Historical Resources Act*, the Minister of Culture and Tourism may require studies, report submission, and the undertaking of salvage, preservation or protective measures to ensure the integrity of historic resources. The Minister may also designate and protect a provincial historic resource that is associated with an important aspect of Alberta's natural or human history and is of outstanding provincial significance. Permitted scientific excavations examining archaeological and palaeontological resources are also undertaken to expand the understanding of these resources within the Province. Alberta Culture and Tourism advocates that historic resources remain undisturbed whenever possible. Although this indicator only applies to the SSRP, data are reported for all regions in order to provide contextual information to Albertans.

Lead Ministry: Alberta Culture and Tourism

Source: Data are available from Alberta Culture and Tourism's Online Permitting and Clearance system (<http://culture.alberta.ca/heritage-and-museums/programs-and-services/opac/>) and the Heritage Resources Management Information System (hermis.alberta.ca)

LUF Region	Number of Permits or Requirements Issued			Number of Sites Discovered or Revisited			Number of New Provincial Historic Resources Designated			Total Number of Designated Provincial Historic Resources
	2013	2014	2015	2013	2014	2015	2013	2014	2015	2015
Lower Athabasca	57	49	23	198	173	84	0	0	0	14
South Saskatchewan	109	119	86	359	684	200	2	2	2	163
North Saskatchewan	76	91	52	472	391	181	0	0	1	114
Lower Peace	15	13	7	68	25	7	0	0	0	3
Upper Peace	33	34	28	78	88	22	0	0	1	20
Upper Athabasca	34	29	23	190	194	165	0	0	0	11
Red Deer	36	35	22	66	75	85	1	0	1	38
Alberta	360	370	241	1431	1630	744	3	2	5	363

Income (Personal or Average Total)

Definition: Based on T1 Family Tax Files, average total income is the arithmetic mean of the total amount of income from various sources (including employment income, government transfers and investment income) among taxfilers, which include themselves and their non-filing spouses.

LARP: The average total income of individuals reporting taxes in the Lower Athabasca Region was \$83,558 in 2013. This represents a 3.5 per cent increase from \$80,730 in 2012, and is considerably higher than the provincial average of \$59,043 in 2013.

SSRP: The average total income of individuals reporting taxes in the South Saskatchewan Region was \$61,598 in 2013. This represents a 3.3 per cent increase from \$59,642 in 2012, and is slightly higher than the provincial average of \$59,043 in 2013.

Notes: Personal income, the indicator identified in LARP, is replaced by average total income. To calculate average total income, aggregated municipal-level tax data are sorted by Land-use Framework region then aggregated to the regional level. The sum of total income is divided by the sum of individuals who reported total income to produce average total income for each region. This is available on an annual basis whereas the Census of Population is updated every five years. Due to the way average incomes are calculated, large municipalities have a stronger influence on average income than smaller municipalities. Although this indicator only applies to LARP and SSRP, data are reported for all regions in order to provide contextual information to Albertans.

Lead Ministry: Alberta Treasury Board and Finance

Source: Statistics Canada's Administrative taxfiler data. Related data are also available from Government of Alberta's Economic Dashboard (economicdashboard.albertacanada.com) and the Alberta Wage and Salary Survey (work.alberta.ca/labour/wage-and-salary-information.html).

LUF Region	Average Total Income		
	2012	2013	y/y Change
Lower Athabasca	\$80,730	\$83,558	3.50%
South Saskatchewan	\$59,642	\$61,598	3.30%
North Saskatchewan	\$54,410	\$56,372	3.60%
Lower Peace	\$41,372	\$42,111	1.80%
Upper Peace	\$56,285	\$57,864	2.80%
Upper Athabasca	\$49,281	\$51,091	3.70%
Red Deer	\$50,583	\$52,847	4.50%
Alberta	\$57,055	\$59,043	3.50%

Labour Force

Definition: Labour force refers to the number of persons who are employed and unemployed. Employed persons have a job or business, whereas unemployed persons are without work, are available for work, and are actively seeking work. Participation rate refers to the labour force expressed as a percentage of the population 15 years of age and over.

LARP: At the end of 2015, the employment rate in the Lower Athabasca Region was 72.6 per cent, down from 74.8 per cent in 2014. The unemployment rate increased to 7.9 per cent in 2015 from 4.7 per cent in 2014, while the participation rate rose from 78.4 per cent in 2014 to 78.8 per cent in 2015.

SSRP: At the end of 2015, the employment rate in the South Saskatchewan Region was 68.4 per cent, no change from 2014. The unemployment rate increased from 4.8 per cent in 2014 to 6.1 per cent in 2015, while the participation rate increased from 71.8 per cent in 2014 to 72.8 per cent in 2015.

Notes: The data used for this is collected by economic region, so it does not align with regional plan boundaries. The eight economic regions are: Lethbridge-Medicine Hat, Camrose-Drumheller, Calgary, Banff-Jasper-Rocky Mountain House, Athabasca-Grande Prairie-Peace River, Red Deer, Edmonton, and Wood Buffalo-Cold Lake. Data for the Lower Athabasca Region is approximated by the Wood Buffalo-Cold Lake economic region, while data for the South Saskatchewan Region are approximated by adding the Calgary and Lethbridge-Medicine Hat economic regions together.

Lead Ministry: Alberta Labour

Source: Data are available from Alberta Labour (work.alberta.ca/labour/labour-force-statistics-and-annual-reviews.html) and Statistics Canada's Labour Force Information dataset.

LUF Region	2012	2013	2014	2015
Lower Athabasca				
Participation Rate	80.1%	78.9%	78.4%	78.8%
Unemployment Rate	4.4%	4.2%	4.7%	7.9%
Employment Rate	76.6%	75.6%	74.8%	72.6%
South Saskatchewan				
Participation Rate	73.6%	72.5%	71.8%	72.8%
Unemployment Rate	4.8%	4.7%	4.8%	6.1%
Employment Rate	70.1%	69.1%	68.4%	68.4%
Alberta				
Participation Rate	73.6%	73.1%	72.7%	73.0%
Unemployment Rate	4.6%	4.6%	4.7%	6.0%
Employment Rate	70.2%	69.8%	69.3%	68.6%

Land Disturbance on Productive Land Base on Public Land (Area)

Definition: Area of land disturbance on the productive land base of public lands. The productive land base is defined as public land owned by the provincial government that is used and managed for forestry.

LARP: In 2014, land disturbance covered approximately 134,978 hectares or 5.03 per cent of the productive land base of public land in the Lower Athabasca Region. This is a 0.22 percentage point increase in land disturbance over the previous year when 129,121 hectares or 4.81 per cent were disturbed. The dominant human footprint types as of 2014 included: forestry (8.03 per cent), energy (2.42 per cent), agriculture (1.24 per cent) and other (remaining per cent). Within the Lower Athabasca Region, there are a total of 9,321,180 hectares of land, of which 84 per cent is considered public, provincially owned land.

Notes: Land disturbance happens when human activity causes changes on the landscape from natural conditions, with associated impacts on related natural resources. Land disturbance can only be measured in areas covered by the Alberta Vegetation Inventory (AVI). Comparisons should not be made to those figures reported previously as they were based total land disturbance rather than disturbance on the productive land base on public lands. This indicator only applies to the LARP. Refer to Area of Land Disturbance on Public Land for more information.

Methodology: The Alberta Biodiversity Monitoring Institute (ABMI) measures human footprint annually in 3 km by 7 km areas sampled systematically across the province. Human footprint in the productive timber land base of the Lower Athabasca Region is estimated from 3 km by 7 km polygons in the region. Human footprint estimates from these polygons are then standardized to the 2012 human footprint value from the ABMI Wall-to-Wall Inventory of Human Footprint before reporting.

Lead Ministry: Alberta Environment and Parks

Source: Data are available from the Alberta Biodiversity Monitoring Institute (abmi.ca). Related data are available from Alberta Environment and Parks and Alberta Agriculture and Forestry.

Disturbance	Land Disturbance on Productive Public Land				
	2012	2013	y/y change	2014	y/y change
Land Disturbance (hectares)	122,663	129,121	-6,458	134,978	-5,857
Per cent Disturbed	4.57%	4.81%	-0.24%	5.03%	-0.22%

Land Disturbance on Public Land (Area)

Definition: Total area of land disturbance on the public land base. The public land base is defined as public land owned by the provincial government, which makes decisions about how land is used and managed for purposes such as agriculture, forestry, resource development, habitat conservation and protection of watersheds and biodiversity.

LARP: In 2014, 5.3 per cent of the public land base in the region was disturbed. This is a 0.2 percentage point increase in land disturbance from 2013. The dominant human footprint types in the Lower Athabasca Region in 2014 were forestry and energy.

SSRP: In 2014, 11.2 per cent of the public land base in the region was disturbed. This is a 0.4 percentage point increase in land disturbance from 2013. The dominant human footprint type in the South Saskatchewan Region in 2014 was forestry.

Notes: Land disturbance happens when human activity causes changes on the landscape from natural conditions, with associated impacts on related natural resources. Although this indicator only applies to the LARP, data are reported for the South Saskatchewan Region as well in order to provide contextual information to Albertans.

Methodology: The Alberta Biodiversity Monitoring Institute (ABMI) measures human footprint annually in 3 km × 7 km areas sampled systematically across the province. Human footprint in the Green Area is estimated from 3 × 7 km polygons in the region (32 in the South Saskatchewan and 223 in the Lower Athabasca). Human footprint estimates from these polygons are standardized to the 2012 human footprint value from the ABMI Wall-to-Wall Inventory of Human Footprint before reporting.

Lead Ministry: Alberta Environment and Parks

Source: Data are available from Alberta Biodiversity Monitoring Institute (abmi.ca).

LUF Region	Land Disturbance on Public Land		
	2012	2013	2014
Lower Athabasca	5.1%	5.1%	5.3%
South Saskatchewan	10.3%	10.8%	11.2%

Land Retained in Native Vegetation (Area)

Definition: The total area of land on the public land base that has been retained as native vegetation. Native vegetation refers to vegetative land cover (e.g., grasslands, riparian areas, forests) that has not been disturbed or re-established by humans. It is calculated as the total area of the public land base minus the amount of human footprint (or land disturbance) for each year of interest.

LARP: In 2014, the total amount of native vegetation on the public land base of the region was 94.7 per cent. This represents a 0.20 percentage point decrease from 2013 when the native land cover was 94.9 per cent, and a 2.6 per cent decrease from 1999 when native land cover was 97.3 per cent. The public land base covers approximately 91% of the Lower Athabasca Region.

SSRP: In 2014, the total amount of native vegetation on the public land base of the region was 88.6 per cent. This represents a 0.6 percentage point decrease from 2013 when the native land cover was 89.2 per cent, and a 2.9 per cent decrease from 1999 when native land cover was 91.5 per cent. The public land base covers approximately 12 per cent of the South Saskatchewan Region.

Notes: Human footprint is determined by the Alberta Biodiversity Monitoring Institute (ABMI). At present, human footprint types that are in a successional condition (e.g., cutlines and cutblocks) are included as human footprint. Future assessments will use ecological data to determine the amount of human footprint or native vegetation that each polygon contains. For more information refer to Area of Land Disturbance on Public Land indicator in this report. Although this indicator only applies to the LARP, data are reported for the South Saskatchewan Region as well in order to provide contextual information to Albertans.

For related information, see the Area of Land Disturbance on Public Land indicator.

Lead Ministry: Alberta Environment and Parks

Source: Data are available from Alberta Biodiversity Monitoring Institute (abmi.ca) and Alberta Environment and Parks (aep.alberta.ca).

LUF Region	Land Retained in Native Vegetation		
	2012	2013	2014
Lower Athabasca	94.9%	94.9%	94.7%
South Saskatchewan	89.7%	89.2%	88.6%

Major Projects (Inventory of)

Definition: Major projects lists private and public sector projects in Alberta valued at \$5 million or greater that are currently under construction or are proposed to start construction within two years.

LARP: The total value of construction capital projects in the Lower Athabasca Region was \$81.4 billion in 2015. This represents a decrease of 16 per cent from \$97.1 billion in 2014. The region accounts for 43 per cent of the total value of construction capital projects in Alberta.

SSRP: The total value of construction capital projects in the South Saskatchewan Region was \$25.2 billion in 2015. This represents an increase of 9 per cent from \$23.2 billion in 2014. The region accounts for 13 per cent of the total value of construction capital projects in Alberta.

Notes: Although this indicator only applies to the SSRP, data are reported for all regions in order to provide contextual information to Albertans.

Lead Ministry: Economic Development and Trade

Source: Data are available from Government of Alberta's Major Projects Map (majorprojects.alberta.ca) and Alberta Economic Development and Trade's Regional Dashboard (regionaldashboard.alberta.ca/#/)

LUF Region	Total Value of Construction Capital Projects (\$Billion)										
	2010	2011	y/y Change	2012	y/y Change	2013	y/y Change	2014	y/y Change	2015	y/y Change
Lower Athabasca	98.8	132.3	34%	119.8	-9%	108.4	-10%	97.1	-10%	81.4	-16%
South Saskatchewan	34.9	28.4	-19%	24.9	-12%	26.4	6%	23.2	-12%	25.2	9%
North Saskatchewan	22.7	26.0	15%	41.0	58%	58.8	43%	64.0	9%	66.0	3%
Lower Peace	4.4	4.7	7%	3.3	-30%	3.6	9%	4.4	22%	4.3	-2%
Upper Peace	7.7	3.1	-60%	5.4	74%	6.4	19%	11.7	83%	6.3	-46%
Upper Athabasca	3.1	3.1	0%	5.3	71%	5.5	4%	2.9	-47%	2.8	-3%
Red Deer	3.0	2.6	-13%	4.0	54%	2.6	-35%	2.1	-19%	2.3	10%
Alberta	174.6	200.2	15%	203.7	2%	211.7	4%	205.4	-3%	188.3	-8%

Oil Sands Investment (Total)

Definition: Investment refers to total private and public capital expenditures in any given year. This includes expenditures on construction, machinery and equipment.

Alberta: Based on preliminary 2015 data, oil sands investment (non-conventional oil extraction) fell to \$22.5 billion, down 16.6 per cent from \$35.7 billion in 2014.

Notes: This indicator reports data for Canada as a whole and is not specific to the Athabasca Oil Sands region; however, the Athabasca Oil Sands region accounts for a significant majority of the total oil sands (non-conventional oil extraction) investment. Of Canada's 173 billion barrels of oil reserves, 170 billion barrels (98 per cent) are located in Alberta, and about 168 billion barrels are recoverable from bitumen. Therefore, activity in Canada as a whole is used as a proxy for activity in the Athabasca Oil Sands area.

Data for this indicator comes from Statistics Canada's Annual Capital and Repair Expenditures Survey (CAPEX). This annual survey collects three sets of data for capital and repair expenditures: investment intentions, preliminary actual expenditures and actual expenditures. Two collection periods are used in the annual survey to collect: 1) the investment intentions for the current year and the preliminary actual expenditures for the previous year (survey conducted from October to January) and 2) Actual capital and repair expenditures from two years previous (survey conducted from May to October). Actual expenditures are thus frequently revised for the previous two years, and trending can only be reliably done once the actual expenditures are finalized. Significant revisions were made to the survey for 2014 and 2015, thus, previous investment estimates for 2012 and 2013 have been revised significantly, reflecting changes such as the exclusion of investment in housing.

Refer to the Cost of Production, Oil Sands Production and Major Projects indicators for related information.

Lead Ministry: Alberta Treasury Board and Finance

Source: Data are available from Statistics Canada (statcan.gc.ca/eng/survey/business/2803).

Region	Non-conventional Oil Extraction Investment (\$Billions)						
	2012 (Actual)	2013 (Actual)	y/y Change	2014 (Actual)	y/y Change	2015 (Preliminary)	y/y Change
Alberta	\$26.2B	\$29.0B	10.7%	\$35.7B	23.1%	\$22.5B	-37.0%

Oil Sands Production Rate

Definition: Total crude bitumen production consists of mined and in-situ bitumen production. Production rates are expressed in terms of the number of barrels of total crude bitumen produced either through mining or in-situ (“in place”) recovery methods each day.

Alberta: In the 2014 calendar year, Alberta’s total crude bitumen production, which consists of mined and in-situ bitumen production reached 2.3 million barrels per day, a 10 per cent increase over 2.1 million barrels per day produced in 2013.

Notes: This indicator reports data for Alberta as a whole and is not specific to the Athabasca oil sands region; however, the Athabasca oil sands region accounts for a significant majority of the total oil sands production in Alberta. Therefore, activity in the province as a whole is used as a proxy for activity in the Athabasca oil region.

Lead Ministry: Alberta Energy

Source: Alberta Energy Regulator (aer.ca/data-and-publications/statistical-reports). Related data are available from Alberta Energy (energy.alberta.ca) and from Government of Alberta’s Economic Dashboard (economicdashboard.albertacanada.com).

Region	Production Rate (Million Barrels per Day)		
	2012	2013	2014
Alberta	1.9	2.1	2.3

Oil Sands Projects (Current/Approved/Pending)

Definition: An oil sands project is defined in the Oil Sands Royalty Regulation, 2009.

Alberta: As of September 2015, the status of reported oil sands projects in Alberta is as follows:

- 139 operating - producing bitumen and/or oil sands product
- 10 construction - on-site construction has commenced for these projects
- 18 approved - regulatory approvals required for these projects to operate have been received
- 24 applications – project application is being reviewed by Alberta Energy Regulator and/or Alberta Environment and Parks.

These figures are slightly higher than the number of operating and approved projects in 2014 but slightly lower than the number of projects currently under construction or in the application process.

Notes: This indicator reports data for Alberta as a whole, and is not specific to the Lower Athabasca Region; however, the Athabasca oil sands region accounts for a significant majority of the total oil sands production in Alberta. Therefore, activity in the province as a whole is used as a proxy for activity in the Lower Athabasca Region.

Lead Ministry: Further information is available through Alberta Energy

Source: Data are available from Alberta Energy (energy.alberta.ca/OilSands/960.asp) and the Oil Sands Information Portal (osjp.alberta.ca/map).

Oil Sands Project Status for Alberta	Project			
	2012	2013	2014	2015
Operating	55	127	133	139
Construction	18	13	14	10
Approved	51	15	17	18
Application	71	29	33	24

Oil Sands Reclamation (Area)

Definition: Total area of land, in hectares, in the oil sands that meets the definition of permanent reclamation.

Oil sands reclamation is based on the *Environmental Protection and Enhancement Act*, 2014. The objective of reclamation is to return the land to an equivalent capability. Due to the nature and extent of oil sands mining, reclamation on lands disturbed by oil sands mining takes place in stages (i.e., progressive reclamation).

Alberta: As of December 2015, 6164 hectares of land in Alberta met the definition of permanent reclamation, representing an increase of 4.5 per cent from 2014, and almost a 30 per cent increase since 2009. In addition, 104 hectares of land have been certified as reclaimed.

Notes: When a reclamation certificate is issued, the parcel of land covered by the certificate is subsequently returned to the Crown, dissolving an approval holder of any liability. For this reason, it can take many years, even decades, before a reclamation certificate is issued, as care is taken to ensure that a desired land use has been achieved and a developing ecosystem is fully functional before a reclamation certificate for a parcel of land is issued. This indicator reports data for Alberta as a whole, and is not specific to the Athabasca oil sands region; however, the Athabasca oil sands region accounts for a significant majority of the total oil sands production in Alberta. Therefore, activity in the province as a whole is used as a proxy for activity in the Athabasca oil region.

Lead Ministry: Alberta Environment and Parks

Source: Data are available from the Oil Sands Information Portal (osip.alberta.ca/map).

Region	Land Defined As Permanent Reclamation (Hectares)				
	2013	2014	y/y Change	2015	y/y Change
Alberta	5,447	5,901	8.3%	6,164	4.5%

Parks per Capita (or Designated Open Space for Recreation – Provincial and Municipal)

Definition: The total hectares of land area designated as a park or recreation area, hectares of land designated with the primary management intent of recreation, plus all other public lands that have recreation as the primary management intent.

LARP: In the Lower Athabasca Region, there were 4.89 hectares of parks for each person as of December 2015. The total land area of parks is 638,035 hectares represented by 34 parks and inhabited by a projected 2015 population of 130,380. This represents a slight increase from 2014 of 4.82 hectares per person. This increase is a result of changed methodology in area calculation and more accurate population numbers, since no new provincial parks were created.

The total land area of parks managed for recreational purposes is 69,158 hectares, with a further 51,101 hectares of recreation land (9 new Provincial Recreation Areas) to be formally designated under the *Provincial Parks Act*.

SSRP: In the South Saskatchewan Region, there were 0.23 hectares of parks for each person as of December 2015. The total land area of parks is 426,619 hectares represented by 126 parks and based on a projected 2015 population of 1,870,735.

The total land area of parks managed for recreational purposes is 136,161 hectares, with a further 1,511 hectares of recreation land (5 new provincial parks and 3 new Provincial Recreation Areas) to be formally designated under the *Provincial Parks Act*.

Notes: Land designated as parks or recreation areas under the *Provincial Parks Act*; the *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act*; and the *Wilmore Wilderness Park Act*. In addition, a number of tools are available for the designation and management of lands for recreational purposes under other legislation, such as the *Provincial Parks Act* and *Public Lands Act*. Both are combined for this indicator.

Wood Buffalo National Park is not included in the Lower Athabasca Region. Municipal parks have not been included at this time.

Refer to the Population indicator for related data and information.

Lead Ministry: Alberta Environment and Parks

Source: Data are available from Alberta Parks (albertaparks.ca/albertaparksca/management-land-use.aspx).

LUF Region	Parks in 2015				
	Number	Area (Hectares)	Projected Population	Per Capita	y/y Change
Lower Athabasca	34	638,035	130,380	4.89	1.5%
South Saskatchewan	126	426,619	1,870,735	0.23	NA

Population (Regional)

Definition: Statistics Canada Census of Population counts Canadian citizens, immigrants, and non-permanent residents with a usual place of residence of Alberta every five years. Postcensal estimates and projections are based on the last (in this case, 2011) census counts adjusted for census net under-coverage and demographic growth that occurred since that census.

LARP: Approximately 130,380 people were projected to be residing within the Lower Athabasca Region in 2015, representing approximately 3.1 per cent of the total Alberta population (4.2 million). The population in the Lower Athabasca Region is estimated to have grown 2.1 per cent from 2014 to 2015, slightly above the Alberta growth rate of 2.0 per cent. The latest long-term projection (August 6, 2014) project the region to grow to 153,360 by 2020, while Alberta is expected to grow to almost 6.9 million.

SSRP: Approximately 1,870,735 people were projected to be residing within the South Saskatchewan Region in 2015, representing approximately 44.5 per cent of the total Alberta population (4.2 million). The population in the South Saskatchewan Region is estimated to have grown 2.2 per cent from 2014 to 2015, slightly above the Alberta growth rate of 2.0 per cent. The latest long-term projections (in 2014) project the region to grow to 2,097,090 by 2020, while Alberta is expected to grow to almost 6.9 million.

Notes: Population estimates are also generated by others, such as the Annual Municipal Census by Alberta Municipal Affairs, and are used for specific purposes related to business needs. The data used for this indicator are the official Government of Alberta dataset, and are regularly reported and updated on the Government of Alberta's Economic Dashboard. Although this indicator only applies to LARP and SSRP, data are reported for all regions in order to provide contextual information to Albertans.

Lead Ministry: Alberta Treasury Board and Finance

Source: Data are available from Alberta Treasury Board and Finance (finance.alberta.ca) and Government of Alberta's Economic Dashboard (economicdashboard.albertacanada.com).

LUF Region	2013	2014	y/y Change	2015	y/y Change
Lower Athabasca	123,835	127,735	3.1%	130,380	2.1%
South Saskatchewan	1,776,195	1,831,000	3.1%	1,870,735	2.2%
North Saskatchewan	1,513,625	1,558,340	3.0%	1,588,735	2.0%
Lower Peace	38,495	38,980	1.3%	39,370	1.0%
Upper Peace	139,130	142,250	2.2%	144,770	1.8%
Upper Athabasca	126,775	127,335	0.4%	127,555	0.2%
Red Deer	289,140	296,050	2.4%	301,020	1.7%
Alberta	4,007,195	4,121,690	2.9%	4,202,565	2.0%

Production (Cost of)

Definition: Cost of production includes costs directly attributable to the operations of oil sands projects, excluding the cost of diluent.

Alberta: In 2015, the operating cost of production in Alberta oil sands, reported by operators, was \$18.61 billion. Of this, pre-payout operating costs were \$7.850 billion; post-payout project operating costs were \$10.757 billion.

Notes: This indicator reports data for Alberta as a whole, and is not specific to the Athabasca oil sands region; however, the Athabasca oil sands region accounts for a significant majority of the total oil sands production in Alberta. Therefore, activity in the province as a whole is used as a proxy for activity in the Athabasca oil region. This indicator only applies to the LARP. Alberta Energy's financial reporting system reports revenue with all previous years changes incorporated into the current year. Costs reported in previous progress reports are no longer valid, and corrected costs will be reported annually.

Payout is reached once a project's cumulative revenues exceed cumulative costs. (The actual payout date for a pre-payout project is the first date at which the cumulative revenue of a project first equals the cumulative cost of the project.) Cumulative revenues are defined as the sum of project revenue and other net proceeds received or receivable from the project's effective date onwards. Cumulative costs are defined as the sum of (1) the project's prior net cumulative balance, (2) the project's allowed costs and (3) royalty paid to the Crown during the project's pre-payout period. The costs, covered in the definition above, are reported for royalty calculation purposes only. Costs that are not considered for the purpose of royalty calculations are not included in this indicator.

Lead Ministry: Alberta Energy

Source: Data are available from Alberta Energy (energy.alberta.ca/About_Us/1701.asp) and Alberta Energy Regulator (aer.ca/data-and-publications/statistical-reports).

Production in Alberta	Operating costs (\$Millions)				
	2011	2012	2013	2014	2015
Pre-payout	\$4,617	\$6,633	\$6,957	\$8,271	\$7,850
Post-payout	\$11,146	\$11,638	\$12,445	\$12,837	\$10,757
Total	\$15,764	\$18,271	\$19,402	\$21,108	\$18,607

Provincial Royalties

Definition: A royalty is a share of the product (royalty-in-kind) or profit reserved by the owner for permitting another to use the property. It is a percentage interest in the value of production from a lease that is retained and paid to the mineral rights owner, in this case, the province of Alberta.

Alberta: In the calendar year 2015, the Crown collected a total of \$1.462 billion as royalties from Alberta oil sands development. This represents a 77 per cent decrease from \$6.234 billion collected in 2014.

Notes: This indicator reports data for Alberta as a whole and is not specific to the Athabasca oil sands region; however, the Athabasca oil sands region accounts for a significant majority of the total oil sands production in Alberta. Therefore, activity in the province as a whole is used as a proxy for activity in the Athabasca oil region.

The results for 2014 onward includes a methodological adjustment from the previously reported results. In the past, data reported for the indicator included total royalties received from pre and post payout oil sands projects. To enhance industry coverage of the indicator, the indicator has been adjusted to also include royalties collected from non-project oil sands wells.

Lead Ministry: Alberta Energy

Source: Data are available from Alberta Energy (energy.alberta.ca/About_Us/1701.asp). Retrieved on November 8, 2016.

Oil Sands Projects	Provincial Royalties Collected (\$1,000s)								
	2011	2012	y/y Change	2013	y/y Change	2014	y/y Change	2015	y/y Change
Pre-Payout	\$460,844	\$670,679	46%	\$946,676	41%	\$1,476,559	56%	\$258,366	-83%
Post-Payout	\$4,082,706	\$3,141,845	-23%	\$3,344,788	6%	\$4,649,259	39%	\$1,178,919	-75%
Non-Project	\$53,226	\$157,309	196%	\$120,037	-24%	\$108,185	-10%	\$25,578	-76%
Total	\$4,596,776	\$3,969,833	-14%	\$4,411,501	11%	\$6,234,003	41%	1,462,863	-77%

Public Land Actively Managed for Enhanced Forestry (Area)

Definition: Total hectares of public land managed using enhanced forestry techniques.

LARP: At the end of the 2014 timber year, a total of 2,148 hectares was managed using enhanced forestry - a loss of 1,077 hectares from the previous timber year. This total consisted of 877 hectares of stand tending techniques such as pre-commercial thinning, fertilizing, pruning, and commercial thinning, and 1,271 hectares of genetically improved tree planting.

Notes: Public land is land owned by the provincial government, which makes decisions about how it is used and managed. Enhanced forestry focuses on collaborative opportunities for innovative forestry practices which link genetics, silviculture, protection, growth and yield, and management for enhancing wood production and other values. A timber year runs from May 1st to April 30th. This indicator only applies to the LARP.

Methodology: The data source for this indicator is a snapshot of reforestation data stored in the Alberta Regeneration Information System. This snapshot is taken annually on May 15th. The snapshot was queried for all stand tendings and planting of genetically improved trees that occurred during the 2014 Timber Year (May 1 – April 30) for the Forest Management Units that correspond to the Lower Athabasca Region. In Progress Report 2013, the number of plantings was erroneously reported in terms of plantings rather than as the number of hectares planted and is corrected in the table below.

Lead Ministry: Alberta Agriculture and Forestry

Source: Data are available from Alberta Agriculture and Forestry (<http://www.agriculture.alberta.ca/app21/forestrypage?cat1=Forest%20Management>).

Enhanced Forestry	Public Land Managed For Enhanced Forestry		
	2012	2013	2014
Stand Tending	1,778	2,430	877
Plantings	1,104	795	1,271
Total	2,882	3,225	2,148

Recreational Infrastructure

Definition: The number of campsites, both serviced and un-serviced, within designated parks and provincial recreation areas; the number of designated camping areas on public lands which are not within Parks areas (e.g., Public Land Recreation Areas); and length of designated trails within a region for single and multiple use types for both motorized and non-motorized use.

LARP: In 2015, there were 1,303 campsites and 1,910 kilometres of designated trails in the Lower Athabasca Region.

SSRP: In 2015, there were 6,424 campsites in the South Saskatchewan Region. Data on the number of kilometres of designated trails in the South Saskatchewan Region are not available due to damages caused by the 2013 flood.

Notes: Campsite numbers are based on 2015 inventory of facilities within designated Parks and Provincial Recreation Areas only. Trail data are acquired from Alberta TrailNet Society and the Recreation Tourism Features Inventory conducted by Alberta Culture and Tourism. The trail inventory was completed in 2014.

Lead Ministry: Alberta Culture and Tourism

Source: Trail data are available from Alberta TrailNet Society (albertatrailnet.com). Campground data are available from Alberta Parks (<http://www.albertaparks.ca/albertaparksca/visit-our-parks/camping/online-reservations> or <https://reserve.albertaparks.ca>).

N/A: Data are not available for this year. This survey question was added in 2013.

Recreational Opportunities within the Region (Satisfaction with)

Definition: The per cent of adult Albertans who value recreational opportunities, expressed in relation to provincial parks and historic resources.

Alberta: In 2015, 28.4 per cent of surveyed adult Albertans visited a provincial park. Of those, 88.8 per cent were satisfied with the quality of services and facilities the parks provided. 71.6 per cent of adult Albertans also said they were likely to visit a provincial park in the next 12 months.

In 2015, 93.8 per cent of adult Albertans felt that Alberta's historic resources are important, and 96.4 per cent valued historic resources for the recreational opportunities they provide.

Notes: Data are not available on a regional level for this indicator. Alberta as a whole is used as a proxy for regional data.

Lead Ministry: Alberta Culture and Tourism

Source: Alberta Culture and Tourism's 2015 Survey of Albertans on Culture (culture.alberta.ca/about/publications/pdf/2015-Survey-of-Albertans-on-Culture.pdf)

Alberta	Surveyed Adult Albertans			
	2012	2013	2014	2015
Visited a Provincial Park	33.4%	32.1%	33.7%	28.4%
Satisfaction with Provincial Parks	N/A	85.6%	86.4%	88.8%
Likely to Visit a Provincial Park in the Next 12 Months	72.6%	71.2%	71.8%	71.6%
Historical Resources are Important	94.2%	93.9%	94.2%	93.8%
Value of Historical Resources for Recreation	95.7%	96.5%	97.1%	96.4%

Rental Affordability

Definition: Average two-bedroom monthly rental and vacancy rates for communities within the Lower Athabasca Region taken in the spring and fall of each year, depending on the community.

LARP: For the average two-bedroom rental property in the communities of Bonnyville, Lac La Biche, Cold Lake and Wood Buffalo, the average rental rate was lower in 2015 than it was in 2014. Each of these communities also had higher vacancy rates in 2015 than 2014.

Notes: Data for the communities of Bonnyville and Lac La Biche are sourced from Government of Alberta's Rural Apartment Vacancy and Rental Cost Survey, conducted annually between May and August. Data for Cold Lake and Wood Buffalo are sourced from the October Canada Mortgage and Housing Corporation Rental Market Survey, conducted bi-annually in April and October. This indicator only applies to the LARP.

Lead Ministry: Alberta Seniors and Housing

Source: Data are available through Alberta Seniors and Housing (seniors-housing.alberta.ca/documents/2015%20AVS%20Report.pdf) and Canada Mortgage and Housing Corporation (https://www.cmhc-schl.gc.ca/en/hoficlincl/homain/stda/data/data_004.cfm).

Community	Average Two-Bedroom Rental Rate				Average Two-Bedroom Vacancy Rates			
	2012	2013	2014	2015	2012	2013	2014	2015
Wood Buffalo	\$2,002	\$2,162	\$2,118	\$1,841	5.9%	6.7%	10.6%	30.7%
Cold Lake	\$1,278	\$1,475	\$1,703	\$1,049	0.0%	3.0%	3.9%	16.1%
Lac La Biche	\$1,020	\$1,054	\$1,097	\$1,131	16.3%	6.7%	5.5%	7.5%
Bonnyville	\$1,121	\$1,242	\$1,357	\$1,146	9.1%	0.0%	4.7%	22.0%

Species (Status in Alberta) including Species at Risk

Definition: The species at risk indicator focuses on wild vertebrate (i.e., mammals, birds, amphibians, reptiles, and fish) species that are legally designated as endangered or threatened under Alberta's *Wildlife Act*. Endangered species are facing imminent extinction or elimination from Alberta; threatened species are likely to become endangered if limiting factors are not reversed.

LARP: At the beginning of 2015, 9 of 33 Alberta species legally designated under Alberta's *Wildlife Act* as threatened or endangered were found in the Lower Athabasca Region: Piping Plover, Wood Bison, Whooping Crane, Peregrine Falcon, Shortjaw Cisco, Northern Leopard Frog, Woodland Caribou, Grizzly Bear, and Western Grebe.

SSRP: At the beginning of 2015, 27 of 33 Alberta species legally designated under Alberta's *Wildlife Act* as threatened or endangered were found in the South Saskatchewan Region: Swift Fox, Grizzly Bear, Sage Grouse, Piping Plover, Ord's Kangaroo Rat, Mountain Plover, Short-horned Lizard, Burrowing Owl, Ferruginous Hawk, Tiny Cryptanthe, Soapweed, Western Spiderwort, Limber Pine, Whitebark Pine, Slender mouse-eared Cress, Porsild's Bryum, Peregrine Falcon, Northern Leopard Frog, St. Mary Sculpin, Stonecat, Western Silvery Minnow, Lake Sturgeon, Small-flowered Sand Verbena, Westslope Cutthroat Trout, Bull Trout, and Western Grebe. One additional species, Pygmy Whitefish, occurs in Waterton Lakes National Park, and was not included in the list above.

Notes: This indicator is calculated using the General Status ranks for all wild vertebrates (mammals, birds, amphibians, reptiles, and fish) in the province. As the General Status assessment has expanded over time to cover other taxonomic groups, only long-term comparisons are available for the vertebrate species. In 2015, it was determined 33 of 595 vertebrate species are at risk of disappearing from the province. Every five years Alberta Environment and Parks reports on the General Status of Wild Species in Alberta as well as the percentage of vertebrate species at risk (i.e., endangered and threatened versus all others). The detailed list of General Status Ranks will be posted in the spring of 2016. Although this indicator only applies to the LARP, data are reported for the South Saskatchewan Region as well in order to provide contextual information to Albertans.

Lead Ministry: Alberta Environment and Parks

Source: Data are available from the Alberta Biodiversity Monitoring Institute (abmi.ca). Related data are available from Alberta Environment and Parks (aep.alberta.ca/fish-wildlife/species-at-risk).

LUF Region	Number of Species Designated as Threatened or Endangered			
	2012	2013	2014	2015
Lower Athabasca	8	8	9	9
South Saskatchewan	25	25	27	27

Tourism Occupancy

Definition: Tourism occupancy refers to the average occupancy rate at reporting hotels, motels and motor hotels in Alberta, excluding Alberta Resorts.

Alberta: The occupancy rate for Alberta (excluding resorts) decreased from 68 per cent in 2014 to 59 per cent in 2015. The average daily room rate in 2015 was \$140 per night – a decrease of 2.1 per cent over the 2014 average daily rate of \$143 per night.

Notes: Alberta Resorts consists of the resort communities of Banff, Lake Louise, Kananaskis, Canmore and Jasper.

Data are not available at the land-use region level. This indicator only applies to LARP.

Lead Ministry: Alberta Culture and Tourism

Source: Data are available from Alberta Culture and Tourism (culture.alberta.ca/tourism/research-and-statistics/statistics).

Tourism Occupancy in Alberta	2012	2013	2014	2015
Alberta Occupancy (excluding resorts)	66%	68%	68%	59%
Average Daily Room Rate	\$132	\$138	\$143	\$140
Overnight Stays at Hotels and Motels	25.7%	23.7%	21.2%	N/A
Overnight Stays with Friends and Relatives	61.6%	63.7%	66.2%	N/A

N/A = Not available at the time of this report

Tourism Visitation

Definition: Total person-visits encompass all visitors (i.e., Alberta residents, other Canadians, and international visitors) who travelled within the Alberta tourism region for tourism purposes.

LARP: In 2014, there were 1.81 million person-visits to the Alberta North tourism region. This represents 5.2 per cent of the 34.68 million person-visits to or within Alberta in 2014.

SSRP: In 2014, there were 12.56 million person-visits to the Calgary and Area/Alberta South tourism regions. This represents 36.2 per cent of the 34.68 million person-visits to or within Alberta in 2014.

Notes: Visitors may or may not have spent a night in the region. Due to a change in data collection starting in 2013, previous data cannot be used to detect trends. 2012 data is included for information only. Although this indicator only applies to LARP, data are reported for SSRP in order to provide contextual information to Albertans.

Data are not available at the land-use region level. The North tourism region is used as a proxy for the Lower Athabasca Region. It includes the majority of the Lower Athabasca, Upper Athabasca, Lower Peace and Upper Peace land use regions. Combining the Alberta South with the Calgary and Area tourism regions is the best proxy for the South Saskatchewan Region. This data also includes portions of the Red Deer Region.

Lead Ministry: Alberta Culture and Tourism

Source: Data are available from Alberta Culture and Tourism (culture.alberta.ca/tourism/research-and-statistics/statistics). Data are also available from Statistics Canada's Travel Survey of Residents of Canada (statcan.gc.ca/eng/survey/household/3810) and International Travel Survey (statcan.gc.ca/eng/survey/household/3152).

Tourism Visitation	2012	2013	2014
Lower Athabasca (North Tourism Region)			
Total Person Visits	1.75M	1.84M	1.81M
Percent of Alberta Total in Region	5.3%	5.4%	5.2%
Percent of Total Person Visits Made by Albertans	74.9%	82.1%	85.1%
South Saskatchewan (Calgary and Area/Alberta South Tourism Regions)			
Total Person Visits	13.34M	12.99M	12.56M
Percent of Alberta Total in Region	40.3%	38.0%	36.2%
Percent of Total Person Visits Made by Albertans	79.4%	80.5%	79.5%
Alberta			
Total Person Visits	33.09	34.16M	34.68M
Percent of Total Person Visits Made by Albertans	85.4%	85.9%	85.9%

Tourism Visitor Expenditures

Definition: Total tourism expenditures from all visitors (i.e., Alberta residents, other Canadians, and international visitors) who travelled within the Alberta tourism region for tourism purposes.

LARP: Total tourism expenditures from all visitors who travelled within the Alberta North tourism region in 2014 was \$502 million while tourism expenditures in Alberta in the same year were \$8.3 billion. Albertans accounted for about 72 per cent of total tourism expenditures in the North tourism region.

SSRP: Total tourism expenditures from all visitors who travelled within the Calgary and Area/Alberta South tourism regions in 2014 was \$2,904 million while tourism expenditures in Alberta in the same year were \$8.3 billion. Albertans accounted for about 59 per cent of total tourism expenditures in the Calgary and Area tourism region.

Notes: Expenditures include food and beverage, accommodation, transportation, retail, recreation and entertainment. Visitor expenditure data are not available for 2012 and earlier. Although this indicator only applies to LARP, data are reported for SSRP in order to provide contextual information to Albertans.

Data are not available at the land-use region level. The North tourism region is used as a proxy for the Lower Athabasca Region. It includes the majority of the Lower Athabasca, Upper Athabasca, Lower Peace and Upper Peace land use regions. Combining the Alberta South with the Calgary and Area tourism regions is the best proxy for the South Saskatchewan Region. This data also includes portions of the Red Deer Region.

Lead Ministry: Alberta Culture and Tourism

Source: Data are available from Alberta Culture and Tourism (culture.alberta.ca/tourism/research-and-statistics/statistics). Data are also available from Statistics Canada's Travel Survey of Residents of Canada (statcan.gc.ca/eng/survey/household/3810) and International Travel Survey (statcan.gc.ca/eng/survey/household/3152).

Tourism Visitor Expenditures	2013	2014
Lower Athabasca (North Tourism Region)		
Total Tourism Expenditures (\$M)	\$409M	\$502M
Percent of Total Tourism Expenditures Made by Albertans	71%	71.9%
South Saskatchewan (Calgary and Area/Alberta South Tourism Regions)		
Total Tourism Expenditures (\$M)	\$2,903M	2,904M
Percent of Total Tourism Expenditures Made by Albertans	58.4%	58.9%
Alberta		
Total Tourism Expenditures (\$M)	\$7,895M	\$8,299M
Percent of Total Tourism Expenditures Made by Albertans	62.2%	60.4%

Traffic (Counts)

Definition: The average daily two-way traffic volume at a point on the highway expressed as vehicles per day for the period of January 1 to December 31 (365 or 366 days).

LARP: The daily average two-way traffic volume on major highways in the Lower Athabasca Region increased from 224,372 vehicles in 2013 to 224,518 vehicles in 2014, an increase of 0.1 per cent.

SSRP: The daily average two-way traffic volume on major highways in the South Saskatchewan Region increased from 1,481,031 vehicles in 2013 to 1,530,178 vehicles in 2014, an increase of 3.3 per cent.

Notes: Percentages are based on automated traffic recorders for the region using the same methodology as the previous reporting year. Automated traffic recorders are present at 20 locations in the Lower Athabasca Region, 104 in the South Saskatchewan Region, and 375 in total throughout Alberta.

Lead Ministry: Alberta Transportation

Source: Data are available from Alberta Transportation (transportation.alberta.ca/3459.htm).

LUF Region	Traffic Counts				
	2012	2013	y/y Change	2014	y/y Change
Lower Athabasca	216,243	224,372	3.8%	224,518	0.1%
South Saskatchewan	1,435,212	1,481,031	3.2%	1,530,178	3.3%
North Saskatchewan	1,177,267	1,227,546	4.3%	1,304,684	6.3%
Lower Peace	14,818	15,102	1.9%	15,520	2.8%
Upper Peace	192,714	195,595	1.5%	210,535	7.6%
Upper Athabasca	150,118	151,024	0.6%	155,102	2.7%
Red Deer	364,985	375,912	3.0%	392,277	4.4%
Alberta	3,551,357	3,670,582	3.4%	3,832,814	4.4%

Water Quality

Definition: Ambient surface water quality limits and triggers are designed to protect surface water quality from unacceptable impacts and protect it for current and future water uses (industrial, agricultural, recreational and aesthetics, drinking water, and protection of aquatic life). Water quality triggers are intended to be conservative early warning signals. They are based on change from historical ambient concentrations of indicators. Water quality limits in the framework are based on existing Alberta, Canadian Council of Ministers of the Environment, Health Canada, and United States Environmental Protection Agency guidelines.

LARP: In 2015, 38 water quality indicators were measured monthly at the Old Fort monitoring station on the lower Athabasca River. Results show that relative to the triggers and limits for the indicators used to manage ambient surface water quality, that:

- No limits were exceeded;
- Triggers were crossed at the Old Fort water quality station for 3 of 38 indicators (i.e., dissolved uranium, dissolved strontium and sulphate).

SSRP: In 2014, 15 primary and 6 secondary water quality indicators were measured monthly at nine monitoring stations in the South Saskatchewan Region. The Minister of Environment and Parks determined, relative to the triggers and limits for the indicators used to manage ambient surface water quality, that:

- No limits were exceeded;
- Triggers were crossed at four water quality stations for 3 of the 15 primary indicators (i.e. pH, specific conductivity and total nitrogen).

Notes: Triggers are established to allow for proactive management. The finding of trigger exceedances does not signal that environmental conditions have placed human health or the environment at risk. Where triggers are crossed, Alberta Environment and Parks is committed to undertaking proactive management responses that will ensure surface water quality is maintained at acceptable levels. The SSRP surface water quality management framework did not exist before 2014.

Lead Ministry: Alberta Environment and Parks

Source: Surface water quality data are available Alberta Environment and Parks (aep.alberta.ca). Management frameworks and reports are also available at: aep.alberta.ca/lands-forests/cumulative-effects/regional-planning/default.aspx.

LUF Region	Surface Water Quality			
	2012	2013	2014	2015
Lower Athabasca				
Triggers crossed	3	5	4	3
Limits exceeded	0	0	0	0
South Saskatchewan				
Triggers crossed			3	N/A
Limits exceeded			0	N/A

Water Quantity

Definition: Water Quantity describes measures related to the abundance of water. These measures can include water levels and flows, water withdrawals, water use and consumption. Water quantity can be managed under a Surface Water Quantity Management Framework, which would include associated triggers, limits and management actions.

LARP: Results not yet available. Data on the adaptive management triggers which will be reported on under the Surface Water Quantity Management Framework for the Lower Athabasca River are not yet available as the management framework was approved and implementation was initiated in 2015.

The Surface Water Quantity Management Framework for the Lower Athabasca River establishes weekly management triggers and water withdrawal limits, implemented by the Alberta Energy Regulator, to enable proactive management of mineable oil sands water use from the Athabasca River. These weekly management triggers and associated water withdrawal limits reflect seasonal variability and become more restrictive as flows in the river decrease.

The management framework also includes a series of adaptive management triggers that will signal when river flow and water use conditions are close to, or outside of, the range of predicted future conditions used in modelling and development of the weekly management triggers and water withdrawal limits. The mineable oil sands sector is currently the largest consumptive user of water in the Lower Athabasca River and is predicted to comprise the largest increase in future water demand. Oil sands operators develop and submit annual Oil Sands Mining Water Management Agreements as identified in the management framework.

SSRP: Indicators are under development. For the South Saskatchewan Region, indicators will focus on water supply, allocation and use. This will be aligned with the Approved Water Management Plan for the South Saskatchewan River Basin.

Lead Ministry: Alberta Environment and Parks

Source: Water quantity data and information are available from Alberta Environment and Parks (aep.alberta.ca). The Surface Water Quantity Management Framework for the Lower Athabasca River is available at: aep.alberta.ca/lands-forests/cumulative-effects/regional-planning/default.aspx.

Cross-Reference Table

Over time, responsibility for leading a particular strategy or developing a particular supporting indicator may have changed as Government of Alberta ministry mandates evolved. The table below lists the titles of lead ministries in effect today and their titles when each regional plan came into force.

2012	2014	2015
Aboriginal Relations	Aboriginal Relations	Indigenous Relations
Agriculture and Rural Development	Agriculture and Rural Development	Agriculture and Forestry
Culture	Culture	Culture and Tourism
Energy	Energy	Energy
Enterprise and Advanced Education	Innovation and Advanced Education	Economic Development and Trade
Environment and Sustainable Resource Development	Environment and Sustainable Resource Development	Environment and Parks
Human Services	Human Services	Human Services
Infrastructure	Infrastructure	Infrastructure
Labour	Jobs, Skills, Training and Labour	Labour
Municipal Affairs	Municipal Affairs	Municipal Affairs
Tourism, Parks and Recreation	Tourism, Parks and Recreation	Culture and Tourism
Transportation	Transportation	Transportation
Treasury Board and Finance	Treasury Board and Finance	Treasury Board and Finance

Contact Us

For more information about Land-use Framework Regional Plans Progress Report: A Review Of Our Progress in 2015 or to access earlier reports, please visit the Alberta Land-use website at landuse.alberta.ca or contact the Land Use Secretariat (LUF@gov.ab.ca or 780.644.7972).