



Land-use Framework Regional Plans

PROGRESS REPORT

a review of our progress in 2016



Alberta

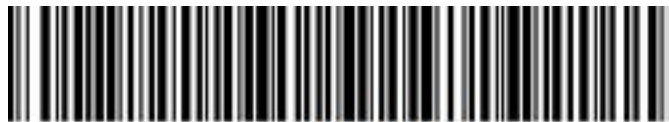
**Land-use Framework Regional Plans
Progress Report**
- A Review of Our Progress in 2016 -

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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 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.

LUF Progress Report 2016 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?" This report is dedicated to offering information regarding the work accomplished or the barriers encountered as both of the plans were implemented in 2016. 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).



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**SUMMARY OF
PROGRESS IN 2016**

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Lower Athabasca Regional Plan

The *Lower Athabasca Regional Plan* came into effect in September 2012, and was the first land-use regional plan approved by Cabinet. It presents the desired economic, social and environmental outcomes for northeastern Alberta and a detailed plan to achieve these results. For example, the *Lower Athabasca Regional Plan* 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 in northeastern Alberta.

The plan also encourages economic diversification, addresses infrastructure challenges around Fort McMurray, commits to continued consultation with Indigenous peoples, offers certainty to industry, and provides for nine new provincial recreation areas to address growing demand for recreational and tourism opportunities. Finally, it committed 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 for many years to come.

In 2016, one strategy, the Tourism opportunity assessment for the Quarry of the Ancestors, Bitumount and Fort Chipewyan, was successfully completed. While progress was made towards completing the outstanding strategies in the plan, the completion dates for six of the seven remaining outstanding strategies have been further extended.

As most planning staff in government ministries are not assigned to specific regions, the effort required to plan and designate the Castle parks impacted the availability of staff to execute on a number of strategies in the regional plans – specifically those related to sub-regional, parks management, recreation and landscape management plans.

This report highlights the status of all the strategic commitments made in the plan. As of the end of 2016, most of the 35 strategies outlined in Table 2 of the regional plan were completed, remained on track, or are ongoing; however, the following seven strategies were deferred:

1. Sub-regional plan using a strategic environmental assessment approach for the south Athabasca Oil Sands area (deferred to 2017),
2. Lakeland Country Destination Development Plan (deferred to 2018),
3. Tourism Development Nodes (deferred to 2018),
4. Develop a Biodiversity Management Framework (deferred to 2018),
5. Develop a Landscape Management Plan for public lands in the Green Area (deferred to 2018),
6. Complete and implement a Groundwater Management Framework for the Lower Athabasca Region (deferred to 2018), and
7. Develop the Regional Parks Plan for the Lower Athabasca (deferred to 2018).

Below are summary tables outlining the general status of the strategies and supporting indicators in the Lower Athabasca Regional Plan. The balance of this report offers a detailed look at those strategies as well as the status of supporting indicators associated with Table 1 in both the Lower Athabasca Regional Plan and the South Saskatchewan Regional Plan.

Lower Athabasca Regional Plan Progress in 2016

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 2017
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 2018
Enhance and expand supply of tourism products and infrastructure	Culture and Tourism	Ongoing
Tourism development nodes	Culture and Tourism	Due 2015; deferred to 2018
Tourism opportunity assessments for Quarry of the Ancestors, Bitumont and Fort Chipewyan	Culture and Tourism	Completed
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 areas on provincial Crown land	Environment and Parks	Ongoing
Manage existing conserved lands	Environment and Parks	Ongoing
Develop a biodiversity management framework	Environment and Parks	Due 2013; deferred to 2018
Develop a landscape management plan for public lands in the Green Area	Environment and Parks	Due 2013; deferred to 2018

Complete a tailings management framework for the mineable Athabasca Oil Sands	Environment and Parks	Ongoing
Implement a 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 2018
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, 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, Energy, Culture and Tourism, Indigenous Relations	Ongoing

INDICATORS AND OUTCOMES
LEAD MINISTRY
RESULTS
Provincial Outcome: Healthy economy supported by our land and natural resources
Lower Athabasca Regional Outcome 1: The economic potential of the oil sands resource is optimized.

Labour Force	Labour	69.1% employment 9.3% unemployment
Provincial Royalties	Energy	\$852 million
Income (personal)	Treasury Board and Finance	\$86,975
Oil Sands Production Rate	Energy	2.5 million barrels per day
Total Oil Sands Investment	Treasury Board and Finance	\$16.6 billion
Cost of Production	Energy	\$16.6 billion

Lower Athabasca Regional Outcome 2: The region's economy is diversified.

Gross Domestic Product	Treasury Board and Finance	\$24,006 million
Employment (sectoral)	Treasury Board and Finance	112,614 people
Public Land Actively Managed for Enhanced Forestry (Area)	Agriculture and Forestry	2,750 hectares
Land Disturbance on Productive Land Base on Public Land (Area)	Environment and Parks	78,331 hectares 3.36% disturbance
Agricultural Land Fragmentation	Agriculture and Forestry	2,964 parcels
Agricultural Land Conversion	Agriculture and Forestry	530 hectares lost
Tourism Visitation	Culture and Tourism	34.06 million visits
Tourism Visitor Expenditures	Culture and Tourism	\$8.087 billion
Tourism Occupancy	Culture and Tourism	52%

Provincial Outcome: Healthy ecosystems and environment
Lower Athabasca Regional 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	5.6%
Biodiversity (Status of Indicators)	Environment and Parks	In development
Land Retained in Native Vegetation (Area)	Environment and Parks	94.4%
Oil Sands Reclamation (Area)	Environment and Parks	6,339 hectares

Fluid Fine Tailings (Volume)	Environment and Parks	1,206 million cubic metres
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Lower Athabasca Regional 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 (Surface)	Environment and Parks	0 limits exceeded 4 triggers crossed
Groundwater	Environment and Parks	In development

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

Lower Athabasca Regional Outcome 5: Infrastructure development supports economic and population growth.

Oil Sands Projects: Current/ Approved/Pending	Energy	131 operating projects 6 under construction 17 approved projects 17 applications
Population (Regional)	Treasury Board and Finance	127,285 people
Traffic (Counts)	Transportation	207,170 vehicles
Construction (Cost of)	Economic Development and Trade	\$2.6 billion
Cost of Living	Treasury Board and Finance	135.2 CPI
Rental Affordability	Municipal Affairs	Lower rental rates Higher vacancy rates

Lower Athabasca Regional Outcome 6: The quality of life of residents through increased opportunities for recreation and active living.

Recreational Opportunities within the Region (Satisfaction with)	Culture and Tourism	36.5% park visitation 91.2% park satisfaction 93.9% historical resources are important 93.9% historical resources are valued for recreational purposes
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 5.01 hectares per person
Recreational Infrastructure (such as Number of Campsites, Kilometres of Designated Trails)	Environment and Parks	1,303 campsites 1,910 kilometers of trails

Lower Athabasca Regional 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 related initiatives
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 about 44 per cent of Alberta's population, came into effect on September 1, 2014.

SSRP provides for eight new or expanded conservation areas, eight new or expanded recreation areas, and twelve new areas for "no service" camping and trail access. SSRP sets environmental management triggers and limits for surface water quality 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, SSRP continues to manage watersheds and protect headwaters in the eastern slopes, promote efficient use of land to reduce human footprint on the landscape, protect against native grassland conversion, and commits to continued work on climate variability issues within the region including flood risk and drought management.

While progress was made in 2016 towards completing the outstanding strategies in the plan, one strategy that was previously reported as on-track for completion in 2017 is now deferred to 2018 (strategy 12: develop a comprehensive approach for groundwater management). Of the seven strategies that were previously reported as deferred, five remain on track to be completed by the extended date, while one has been further extended.

As most planning staff in government ministries are not assigned to specific regions, the effort required to plan and designate the Castle parks impacted the availability of staff to execute on a number of strategies in the regional plans – specifically those related to sub-regional, parks management, recreation and landscape management plans.

This report highlights the status of all the strategic commitments made in the SSRP. In 2016, most of the 27 strategies outlined in Table 2 of the regional plan were completed, remained on track, or are ongoing; however, the following eight were deferred:

1. Complete the South Saskatchewan Region Biodiversity Management Framework (deferred to 2018),
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 (deferred to 2018),
3. Complete a linear footprint management plan for Green Area and White Area public lands for remaining areas (deferred to 2019),
4. Establish a Pekisko Special Management Area and complete a management plan (deferred to 2018),
5. Develop a comprehensive approach for groundwater management (deferred to 2018),
6. Complete recreation management planning for the Porcupine Hills (deferred to 2018),
7. Complete recreation management planning for Livingstone, Willow Creek, Allison/ Chinook, McLean Creek and Sibbald areas (deferred to 2018),
8. Develop a regional parks plan for the South Saskatchewan Region (deferred to 2019).

Below are summary tables outlining the general status of the strategies and supporting indicators in the South Saskatchewan Regional Plan. The balance of this report offers a detailed look at those strategies as well as the status of supporting indicators associated with Table 1 in both the Lower Athabasca Regional Plan and the South Saskatchewan Regional Plan.

South Saskatchewan Regional Plan Progress in 2016

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
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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
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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 2018
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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 2018
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Complete a linear footprint management plan for Green Area and White Area public lands for remaining areas	Environment and Parks	Due 2017; deferred to 2019
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Review Integrated Resource Plans in the region for their relevance and incorporate under this regional plan	Environment and Parks	Completed
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Complete the Majorville Guidelines for Land and Resource Management	Environment and Parks	Completed
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Establish new or expand existing conservation areas on provincial Crown land	Environment and Parks	As soon as practicable
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Establish the Pekisko Special Management Area and complete management plan	Environment and Parks	Due 2015; deferred to 2018
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Complete the development and evaluation of the Southeast Alberta Conservation Offset Pilot	Agriculture and Forestry	Completed
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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
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Develop a comprehensive approach for groundwater management	Environment and Parks	Due 2017; deferred to 2018
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Develop a water storage opportunities study for the South Saskatchewan River Basin	Agriculture and Forestry	Completed
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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 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.

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 2018
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 in 2016; deferred to 2019

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
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INDICATORS AND OUTCOMES
LEAD MINISTRY
RESULT
Provincial Outcome: Healthy economy supported by our land and natural resources
South Saskatchewan Regional Outcome 1: The region's economy is growing and diversified.

Gross Domestic Product	Treasury Board and Finance	\$120,392 million
Business Establishments	Economic Development and Trade	70,879 businesses
Major Projects (Inventory of)	Economic Development and Trade	\$31.76 billion
Building Permits	Economic Development and Trade	25,707 permits \$8,193 million
Employment	Treasury Board and Finance	66.4% employment 8.8% unemployment 972,216 employed
Income (Average Total)	Treasury Board and Finance	\$64,152
Agricultural Land Fragmentation	Agriculture and Forestry	28,916 parcels
Agricultural Land Conversion	Agriculture and Forestry	810 hectares lost

Provincial Outcome: Healthy ecosystems and environment
South Saskatchewan Regional Outcome 2: Air quality is managed to support healthy ecosystems and human needs through shared stewardship.

Air Quality	Environment and Parks	0 limits exceeded 3 triggers crossed
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South Saskatchewan Regional Outcome 3: Biodiversity and ecosystem function are sustained through shared stewardship.

Biodiversity	Environment and Parks	In development
Conserved Land (Area)	Environment and Parks	428,194 hectares

South Saskatchewan Regional Outcome 4: Watersheds are managed to support healthy ecosystems and human needs through shared stewardship.

Water Quality	Environment and Parks	Data not available
Water Quantity	Environment and Parks	In development

South Saskatchewan Regional Outcome 5: Land is used efficiently to reduce the amount of area that is taken up by long-term developments associated with the built environment.

Efficient Use of Land (Indicators in Development)	Municipal Affairs	In development
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South Saskatchewan Regional 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 136,161 hectares recreation area 0.22 hectares per person
Recreational Infrastructure	Environment and Parks	6,424 campsites
Historic Resources	Culture and Tourism	116 permits and requirements 297 sites re-assessed or discovered 2 new sites designated

South Saskatchewan Regional 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
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South Saskatchewan Regional Outcome 8: Community development needs are anticipated and accommodated.

Population	Treasury Board and Finance	1,891,500 people
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**LOWER ATHABASCA
REGIONAL PLAN
STRATEGIES**



Provincial Outcome: Healthy Economy Supported by Our Land and Natural Resources

LARP Outcome 1: The economic potential of the oil sands resource is optimized.

1. Continue work through the Alberta Provincial Energy Strategy

Alberta Energy - implementation is ongoing

Description:

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.

Progress:

In July 2015, Alberta along with all of Canada's provincial and territorial governments agreed to the Canadian Energy Strategy (2015) – a framework for collaboration on shared energy-related priorities. Provinces and territories continue to make progress on implementing the Canadian Energy Strategy. Current areas of focus include the means by which provinces and territories can collaborate to deliver energy to people, support innovation, address climate change, improve energy efficiency, and reduce the use of diesel-generated electricity in off-grid communities. A report on progress will be submitted to Premiers in July 2017 at the Council of the Federation meeting in Edmonton.

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

Alberta Energy – implementation is ongoing

Description:

Responsible Actions: A Plan for Alberta's Oil Sands (2009) is a

pro-active 20-year strategic plan for innovative, responsible and collaborative development of Alberta's oil sands. This strategic plan was developed to address current and future growth in the oil sands. It is intended to achieve the triple bottom line outcomes of optimized economic growth, reduced environmental footprint, and increased quality of life for Albertans today and into the future. Responsible Actions: A Plan for Alberta's Oil Sands – Five Years in Review (2013) assesses progress during the first few years following implementation of the strategy.

Progress:

That progress has continued on several fronts. Alberta's Climate Leadership Plan is a plan to take action on climate change and protect the province's health, environment and economy. It demonstrates the government's commitment to developing the oil sands in a responsible manner. Responsible Actions objectives will be achieved through these new and comprehensive initiatives. The Fiscal Plan for the Climate Leadership Plan is expected to be released in spring 2017.

3. Continue work on an improved regulatory process

Alberta Energy and Alberta Environment and Parks – implementation is ongoing

Description:

Building a robust and efficient regulatory system is critical to supporting continued growth and environmental management in the region and province.

Progress:

Alberta Energy and Alberta Environment and Parks worked with

the Alberta Energy Regulator to ensure that timely, government approved policy was in place through the Alberta Responsible Energy Policy System. This work continued to be led by the Regulatory Enhancement Project Task Team.

In 2016, the Regulatory Enhancement Project Task Team identified 11 new issues and resolved eight. The majority of issues that are impacting the regulatory process are broader than jurisdictional issues, and are becoming related to policy alignment, coordination and identification of regulatory gaps. Because of this shift, the role of the Regulatory Enhancement Project Task Team is evolving into ongoing facilitation and investigation to ensure policy clarity between the two regulators.

The Alberta Energy Regulator continues its efforts to improve the regulatory process by having regular dialogue with Alberta Environment and Parks on land use processes, refinement of the tools for applications, and promoting single but multi-enactment applications and reviews.

Also, the Alberta Energy Regulator has released Directive 085 and Directive 086. Directive 085: Fluid Tailings Management for Oil Sands Mining Projects (2016) sets out the new application and performance reporting requirements for fluid tailings volume and management plans that are part of a phased approach to implementing the Tailings Management Framework previously released under Lower Athabasca Regional Plan. Directive 086: Reservoir Containment Application Requirements for Steam-Assisted Gravity Drainage Projects (2016) clarifies rules for addressing reservoir containment issues in the identified shallow Athabasca Oil Sands Area. Work will continue in 2017 to provide certainty to stakeholders, regulators and Albertans in the oil, 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 2017

Description:

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.

Progress:

A final draft of the South Athabasca Oil Sands Regional Strategic Assessment was completed in 2015. It is expected to be released in 2017 when the companion technical reports are ready. The Regional strategic assessment is a rigorous and science-based approach that integrates social, economic and environmental considerations and provides information necessary for planning processes. This assessment will inform the Lower Athabasca Region Landscape Management Plan.

5. Continue work on Connecting the Dots: Aboriginal Workforce and Economic Development in Alberta **Alberta Indigenous Relations – implementation is ongoing**

Description:

Connecting the Dots: Aboriginal Workforce and Economic Development in Alberta (2010) report was submitted by a Member of Legislative Assembly Committee highlighting 30 recommendations to increase participation of aboriginal peoples in Alberta's workforce and economy. In 2011, the Government of Alberta accepted 28 of these recommendations and two in principle. Connecting the Dots: Progress Highlights (2013) reports achievements related to nine priorities.

Progress:

In 2016, work continued on the Aboriginal Economic Partnership Program which provides grants to support Indigenous communities, community-owned businesses and not-for-profit organizations increase their participation in economic development opportunities and contribute to improved socio-economic outcomes for Indigenous peoples.

Throughout 2016, this program provided through Alberta Indigenous Relations supported:

- Aboriginal Financial Institutions to work directly with Indigenous entrepreneurs;
- Aboriginal Business Investment Fund and the Employment

Partnership Program to encourage participation of First Nations, Métis and Inuit communities in the economy and labour market;

- First Nations Development Fund to support First Nations community, social and economic development; and
- First Nations and Métis Women's Economic Security Councils to 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**

Description:

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.

Progress:

In 2016, Alberta Agriculture and Forestry formally approved major revisions to the Alberta Forest Genetic Resource Management and Conservation Standards (2016) manual and began enforcing these standards. The department also instituted the Mandatory Use of Improved Seed for Reforestation Directive (2016) and Alberta Seed Testing Standards (2016) to support the use of reforestation material from breeding programs thereby enhancing forest growth rates while sustaining genetic diversity of the reforestation material. In addition, the Government of Alberta continued to support the Mountain Pine Beetle Management Program.

7. Continue work on wildfire management planning initiatives **Alberta Agriculture and Forestry – implementation is ongoing**

Description:

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 a Wildfire Management Planning Standard as a guideline for wildfire risk management in Alberta.

These standards and 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 aligned with regional outcomes.

Progress:

In 2016, the Lac La Biche Wildfire Management Plan was approved and implemented. Also, the Fort McMurray Wildfire Management Plan underwent further development as a result of a review of the 2016 Horse River wildfire and is expected to be completed in 2017.

8. Continue work on the Alberta Forest Products Roadmap to 2020 **Alberta Agriculture and Forestry – implementation is ongoing**

Description:

Collaboration between the Government of Alberta and the forest industry sector focuses 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 variability in Alberta's forest products industry, enhancing contributions to rural communities and the province at large, and moving toward green solutions to address environmental and economic challenges.

Progress:

In 2016, this collaboration continued to explore opportunities to diversify the sector through new markets and products. Alberta Agriculture and Forestry continued to advocate for a favourable Canada-U.S. Softwood Lumber Agreement however negotiations since the Canada-U.S. Leader's Summit in June, 2016 have not successfully advanced. Despite this, the ministry continues its work with companies and the Government of Canada to explore new opportunities and trading partners within international markets for forest product exports.

9. Lakeland Country Destination Development Plan **Alberta Culture and Tourism – due 2015, deferred to 2018**

Description:

Lakeland Country will be developed as a provincial iconic tourism destination in order to diversify the regional and local economy, increase tourism and recreational opportunities, provide an attractive

destination for domestic and international visitors, support hunting, fish 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.

Progress:

Progress on this strategy was delayed because the Government of Alberta focused on tourism development within the Castle region as a priority in 2016. In 2016, tourism grant funding was provided to the Conseil de développement économique de l'Alberta (CDEA) to support new and existing operators offering heritage and cultural tourism experiences in northeastern Alberta's Lakeland region. This initiative builds on the region's rich Francophone history and connections with Indigenous communities and provides an opportunity to encourage Francophone economic development.

In 2017, the CDEA will continue to build business capacity and market knowledge among new and existing tourism entrepreneurs in northeast Alberta. Also in 2017, Alberta Culture and Tourism will begin developing the Lakeland Country Destination Development Plan, aiming to have it completed by 2018.

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

Alberta Culture and Tourism – implementation is ongoing

Description:

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 127,000 people, either directly or indirectly. Tourism revenue is a key economic driver for the province and contributes to the well-being of all Albertans.

Progress:

In 2016, tourism grant funding was provided to Fort McMurray Tourism to undertake the development of a tourism asset inventory and Northern Lights interpretive centre investment profile for the Regional Municipality of Wood Buffalo. The projects are collaborative initiatives among key tourism stakeholders in the region to prioritize the development of attractions that align with the desires of domestic and international visitors. Development of the tourism asset inventory and Northern Lights interpretive centre investment

profile is expected to continue through 2017.

11. Tourism Development Nodes

Alberta Culture and Tourism – due 2015, deferred to 2018

Description:

Tourism development nodes identify areas on public, municipal or private land that comprise a cluster of natural features, 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.

Progress:

In 2016, Alberta Culture and Tourism developed a cross ministry working group to address the challenges and barriers facing the implementation of tourism development nodes. In 2017, Alberta Culture and Tourism will continue to collaborate with working group members to put mechanisms and structures in place to enable implementation of the nodes. Potential tourism nodes will also be considered during preparation of the Lakeland Country Destination Development Plan.

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

Alberta Culture and Tourism – completed in 2016

Description:

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.

Progress:

Tourism opportunity assessments for Quarry of the Ancestors and Bitumont were completed in 2015, while the Fort Chipewyan Tourism Opportunity Assessment was completed in 2016. Assessments considered background reviews, destination analysis, market research, lifecycle evaluations, community engagement input, and situational reports. Based on these assessments, there are no further plans to develop the Quarry of the Ancestors or Bitumont sites for tourism purposes. The results of the Fort



Chipewyan Tourism Opportunity Assessment were submitted to the Fort Chipewyan Tourism Committee for action. Alberta Culture and Tourism maintains regular engagement with the Fort Chipewyan Tourism Committee to provide support and advice regarding potential implementation.

13. Scenic Byways Network

Alberta Culture and Tourism – completed in 2015, implementation is ongoing

Description:

Alberta Culture and Tourism is working 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. Creation of distinctive travel experiences will showcase the region's unique scenic resources and cultural landscapes.

Progress:

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. In 2017, a recreation and tourism concept plan for the Lower Athabasca River from Fort McMurray to the Northwest Territories will be initiated.

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

Alberta Environment and Parks and Alberta Energy – implementation is ongoing

Description:

Alberta Energy and Alberta Environment and Parks continue 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.

Progress:

In February 2016, the Alberta Energy Regulator released the Integrated Compliance Assurance Framework (2016). The

framework commits to continuous development of requirements that are clear, effective and enforceable. Continuous improvement, including incremental and transformational change, will be undertaken systematically.

Also of note, the Alberta Energy Regulator continued to work with the Government of Alberta to clarify rules for access to resources. This has led to improved tools for application submissions and processing as well as creating better regulatory flexibility. The Regulatory Enhancement Task Team and other formal and informal issue-specific working groups continue to work on emerging approval and compliance issues. They effectively and collaboratively manage cumulative impacts during these discussions.

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

Alberta Energy – implementation is ongoing

Description:

Alberta Energy continues 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.

Progress:

The Government of Alberta continues to promote oil pipeline infrastructure to support job creation and market diversification. On January 29, 2016, the Government of Alberta announced its acceptance of all of the Royalty Review Advisory Panel's recommendations. The work Alberta Energy advanced in 2016 to address these recommendations included:

1. Appointment of the Energy Diversification Advisory Committee (EDAC). EDAC will provide advice to the Government of Alberta that answers the key question "What additional steps can Alberta take to build a more diversified and resilient energy economy that works with industry and communities to create jobs, moves the energy industry up the value chain, and diversifies the energy industry into new end products?" EDAC will review current work, engage targeted audiences, solicit public feedback, and provide advice. EDAC is expected to conduct a thorough review of the opportunities, potential policy, and financial tools the Government of Alberta currently has


available in order to expand the downstream sector, including hydrocarbon processing and petrochemical opportunities.

This review will examine upgrading, partial upgrading, refining, petrochemical plants, and possibly other opportunities. EDAC is anticipated to report back to the Government of Alberta by fall 2017.

2. Changes to the Oil Sands Royalty regime. Alberta Energy made changes to five Regulations related to the Oil Sands Royalty regime. These changes fulfil Royalty Review Advisory Panel's recommendations and will help maintain Alberta's position as a competitive jurisdiction with regard to investment, while assuring greater transparency and public trust in the oil sands royalty system.
3. Implementation of the Petrochemicals Diversification Program. Alberta Energy implemented the Petrochemicals Diversification Program to encourage private sector investment in world-scale petrochemical facilities in Alberta. In December 2016, the Ministers of Alberta Energy and Alberta Economic Development and Trade announced two projects to receive royalty credits. The two projects will consume propane to produce value-added products, including one project that will consume propane extracted from bitumen processing off-gases. The projects are expected to reach a Final Investment Decision by June 2018 and, depending on the decision, become operational by 2021.

In November 2016, the federal government approved the Kinder Morgan Trans Mountain Expansion Project and the Enbridge Line 3 Replacement Project. The Trans Mountain Expansion Project

team is now expected to apply for its **final route permit** and begin addressing other permitting requirements with assistance from the federal and provincial governments. The Enbridge Line 3 Replacement Project team is awaiting approvals from North Dakota, Minnesota and Wisconsin before it can proceed.



Provincial Outcome: Healthy Ecosystem 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**

Description:

The Lower Athabasca Regional Plan 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 approximately two million hectares. In order to establish new conservation areas in the Lower Athabasca region, Crown oil sands and metallic and industrial minerals agreements that fell within, or partially within, new conservation areas established under the Lower Athabasca Regional Plan were subject to cancellation in accordance with section 8(1)(c) of the Mines and Minerals Act.

Progress:

The remaining Crown oil sands and metallic and industrial mineral agreements falling within, or partially within, the new conservation areas designated in the Lower Athabasca Regional Plan were cancelled and compensated in 2016. The following conservation areas are expected to be designated under the Provincial Parks Act in 2018: Birch Mountains Wildland Provincial Park expansion, Dillon River Wildland Provincial Park, Richardson Wildland Provincial Park, and Kazan Wildland Provincial Park.

17. Continue to manage existing conserved lands

Alberta Environment and Parks – implementation is ongoing

Description:

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.

Progress:

Schedule F in the Lower Athabasca Regional Plan identified permitted activities for existing and new conservation areas in the region. Since the plan 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 an Order in Council and publicly communicated through the Alberta Gazette. Until it is finalized, the draft Lower Athabasca Regional Parks Plan, which is aligned with the Lower Athabasca Regional 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 2018

Description:

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

Progress:

Work continued on completing a Lower Athabasca Region Biodiversity Management Framework. 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. More work needs to be done to address recommendations advanced by the Lower Athabasca Regional Plan Review Panel regarding Indigenous traditional land use and traditional knowledge, as well as meaningful engagement in the development of a framework that reflects cultural and social values. Pending further engagement with Indigenous peoples and stakeholders, the framework is anticipated to be completed in 2018.

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

Alberta Environment and Parks – due 2013, deferred to 2018

Description:

The Lower Athabasca Region Landscape Management Plan incorporates strategies and management actions to reduce the extent and duration of human footprint in order to achieve biodiversity outcomes and objectives for the region. The Plan will focus on Moose Lake access management, caribou range planning, and ensuring sustainable public motorized access in the Green Area (i.e., generally forested public lands) of the region. It will also support Indigenous peoples' interests.

Progress:

Development of the Landscape Management Plan is progressing; however, the pace of development has changed to allow for alignment with caribou range planning. Caribou range plans cover a significant portion of the landscape management planning area. They focus on land disturbance and habitat needs of caribou herds based on direction received from the Government of Canada. These plans are expected to be completed as early as 2017. The Landscape Management Plan will incorporate management directions provided by these range plans.

In 2016, the Government of Alberta entered into a collaborative agreement with Fort McKay First Nation to develop management recommendations for Crown land adjacent to their Moose Lake reserves. These recommendations will form the basis of a draft management plan for a 10 kilometer special management zone. While significant progress has been made, finding mutually acceptable solutions on key issues remains challenging and has led to a delay in bringing a draft plan forward for stakeholder and Indigenous consultation. The Moose Lake Special Management Zone Plan, expected to be completed in 2017, will form a chapter in

the Landscape Management Plan.

20. Complete a tailings management framework **Alberta Environment and Parks – implementation is ongoing**

Description:

The Lower Athabasca Region Tailings Management Framework for the Mineable Athabasca Oil Sands (2015) provides direction to manage fluid tailings volumes during and after mine operations in order to reduce liability and environmental risk resulting from the accumulation of fluid tailings on the landscape.

Progress:

Implementation of the Tailings Management Framework for the Mineable Athabasca Oil Sands continues to be a priority. The Alberta Energy Regulator released Directive 085: Fluid Tailings Management for Oil Sands Mining Projects in July 2016, which operationalizes key regulatory aspects of the fluid tailings management intent of the Tailings Management Framework, including requirements for oil sands tailings management plans. The directive will be updated, with support from Alberta Environment and Parks, to include additional reporting and compliance requirements and is expected to be released in spring 2017.

In 2016, the Government of Alberta also established the Stakeholder Interest Group on Tailings Management. This multi-stakeholder advisory group is an advisory body to enhance integration of the Tailings Management Framework initiatives, support timely implementation of the Framework, and improve multi-stakeholder involvement and relations in the area of tailings management so that new and legacy tailings will be reclaimed in a timely manner. Alberta Environment and Parks, Alberta Energy and the Alberta Energy Regulator are also working to address policy gaps related to the reclamation of fluid tailings, water management on oil sands mining sites, oil sands pit lakes (with and without fluid/treated tailings), and management tools (e.g., Mine Financial Security Program, a compliance levy).

21. Continue to implement the progressive reclamation strategy

Alberta Environment and Parks – implementation is ongoing

Description:

To increase the pace of reclaiming oil sands mines, the Lower Athabasca Regional Plan 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: an updated reclamation security policy, enhanced reclamation reporting, and clarification of the reclamation certification program.

Progress:

Recommendations from a three-year review of the Mine Financial Security Program prompted the Alberta Energy Regulator to make several operational changes that included a new requirement for approval holders to submit a supplementary information form with their annual submissions that provides details surrounding liabilities. Alberta Environment and Parks, with Alberta Treasury Board and Finance, the Alberta Energy Regulator, and Alberta Energy also undertook policy development work related to using qualifying environmental trusts as an instrument for providing financial security. This work is expected to be completed in 2017.

With support from the Alberta Energy Regulator and Alberta Energy, Alberta Environment and Parks began work on developing options for revising the Mine Financial Security Program in order to leverage it as a tool to help manage exceedances of fluid tailings volume profile thresholds. Alberta Environment and Parks also provided disturbance and reclamation data for oil sands mines and in-situ operations to the Oil Sands Information Portal and developed an online submission tool to assist oil sands mining and in situ operators with submitting spatial data associated with their Annual Conservation and Reclamation Reports, Mine Reclamation Plans, and Life of Mine Closure Plans.

Stakeholders are expected to provide feedback on proposed amendments to the Mine Financial Security Program in 2017 so changes may be implemented in 2018. During this same timeframe, Oil Sands Information Portal data will continue to be updated and development of the online submission tool for oil sands operators is expected to be completed.

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

Description:

The Lower Athabasca Region Air Quality Management Framework - For Nitrogen Dioxide and Sulphur Dioxide (2012) supports the management of cumulative effects of emissions by setting ambient air quality triggers and limits for nitrogen dioxide and sulphur dioxide.

Progress:

Annual reports provide information on the status of ambient environmental conditions and progress of management responses relative to the framework. Air quality management reports for 2015, which can be found on the Alberta Environment and Parks website, reveal framework limits were not exceeded for nitrogen dioxide and sulphur dioxide however, triggers were crossed at seven air monitoring stations.

In 2016, a number of recommendations were published in a report produced by the Alberta Energy Regulator, residents, Alberta Health and Alberta Health Services entitled “Recurring Human Health Complaints Technical Information Synthesis” (2015) which supports further assessment of air quality in this region.

An environmental conditions report containing 2016 assessment results as well as a report on the progress of the management response are expected to be released in 2017.

23. Continue to implement the Surface Water Quality Management Framework for the Lower Athabasca River
Alberta Environment and Parks – implementation is ongoing

Description:

The Lower Athabasca Region Surface Water Quality Management Framework for the Lower Athabasca River (2012) supports monitoring and management of long-term, cumulative changes in ambient surface water quality within the Lower Athabasca River.

Progress:

Annual reports provide information on the status of ambient environmental conditions and progress of management responses relative to the framework. Surface water quality reports for 2015, which can be found on the Alberta Environment and Parks website, reveal framework limits were not exceeded for 38 indicators; however, triggers were crossed for four of these indicators (i.e.,

dissolved uranium, dissolved lithium, sulphate, and dissolved cobalt). Reports containing the 2016 results as well as an update on the progress of the management response are expected to be released in 2017.

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

Alberta Environment and Parks – due 2014, deferred to 2018

Description:

The Lower Athabasca Region Groundwater Management Framework (2012) 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.

Progress:

The review and optimization of the regional groundwater monitoring network in 2015 led to refinements in the approach and objectives of the monitoring program and initiated a review of the methodology for developing groundwater management frameworks in 2016. This review, in conjunction with results of the regional monitoring program, will inform determination of framework triggers and validate the current approach to groundwater management.

Regional groundwater monitoring and data analysis which recommenced in 2016 will continue in 2017. Review of the methodology for groundwater management framework development is expected to conclude in 2017 followed by an update to the Lower Athabasca Region Groundwater Management Framework in 2018.

25. Complete an updated Surface Water Quantity Management Framework for the Lower Athabasca River

Alberta Environment and Parks – completed in 2015, implementation is ongoing

Description:

The Lower Athabasca Region Surface Water Quantity Management Framework for the Lower Athabasca River (2015) 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 includes weekly management triggers and water

withdrawal limits and 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.

Progress:

The first full year of framework implementation was completed in 2016; the first annual report providing ambient environmental conditions relative to the framework is expected to be released in 2017.

In 2016, Alberta Environment and Parks continued to work collaboratively with the Alberta Energy Regulator and mineable oil sands operators to clarify Regulatory Details within the Lower Athabasca Regional Plan required to fully support implementation of this framework. A Water Management Agreement for 2016-2017 was submitted to the Alberta Energy Regulator, Alberta Environment and Parks, and Fisheries and Oceans Canada by oil sands mine operators. This agreement specifies water allocations of individual mine operators during the seasons and under various stream flow conditions to ensure that cumulative water withdrawal limits under the framework are not exceeded.

The Athabasca River Conditions and Use website (<http://www.environment.alberta.ca/apps/OSEM/>) was updated to support reporting of weekly management triggers and water withdrawal limits under the framework. Oil sands mine operators submitted water use reports on a weekly basis during 2016. Also of note, work continued with Indigenous peoples to develop a navigation hazard application that supports additional consideration of traditional knowledge in 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

Description:

The Comprehensive Regional Infrastructure Sustainability Plan (CRISP) for the Athabasca Oil Sands Area (2011) was a long-term flexible and integrated approach to planning for growth in the Athabasca Oil Sands Area intended to complement similar plans for the Cold Lake and Peace River oil sands areas. These plans were developed based on recommendations in Responsible Actions: A Plan for Alberta's Oil Sands (2009).

Progress:

Evolving Government of Alberta priorities in conjunction with a slow-down in oil production and development reduced the focus on CRISP implementation. In 2017, work is expected to reassess regional oil sands priorities and develop a plan to address these priorities.

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

Description:

Ensuring opportunities for future routes and siting for pipeline

gateways, transportation corridors, and utility and electrical transmission corridors helps plan the land base available for development while facilitating population and economic growth and efficient use of the land.

Progress:

In 2016, the Alberta Utilities Commission's (AUC) regulatory approval process continued for the Fort McMurray West 500 kV Transmission Line between the Wabamun and Fort McMurray areas. The transmission line will increase the capacity of, and provide more reliability to, the existing electricity grid, helping energy flow into and out of the Fort McMurray area. The AUC reviewed the project's proposed routes, seeking to address stakeholder concerns through the regulatory process. When reviewing transmission project proposals, the AUC considers several social, environmental and economic factors. From a land-use perspective, it is common for planners and regulators to leverage existing right-of-ways to minimize land disturbance.

Also in 2016, the work to ensure a safe and reliable electricity system was highlighted through the response to the Fort McMurray wildfire. With several electricity transmission and distribution assets damaged as a result of the wildfire, ATCO Electric (Transmission and Distribution Facilities Owner), the Alberta Electric System Operator (AESO), and supporting emergency responders ensured power and natural gas reached those who needed it most.

The AUC is expected to approve the west route for the Fort McMurray West 500 kV Transmission Line in 2017, providing this route has lower impacts by paralleling existing linear disturbances such as transmission lines, than other route options. Once approved, construction may begin in spring 2017, with the project becoming operational by 2019.

28. Continue work on critical economic linkages to markets
Alberta Transportation and Alberta Economic Development and Trade
– implementation is ongoing

Description:

Critical economic linkages to markets include connecting the Mackenzie Delta to Asia-Pacific markets, connecting the Industrial Heartland area to Fort McMurray, and connecting Fort McMurray to the Northwest Territories, to Lac La Biche; to La Loche (in Saskatchewan via Highway 881), and to Red Earth Creek (via Highway 686).

Progress:

A number of planning studies to identify improvements to the safety, efficiency and potential expansion of the highway network were undertaken, such as:

- Planning study for re-alignment of Highway 881 around Gregoire Lake remains underway;
- Highway 881 Corridor Management Study from Anzac to Highway 63 remains underway;
- Highway 881 Corridor Management Study from Lac La Biche to Anzac was completed;
- Highway 63 Urban Service Area access management study was completed; and
- Highway 63 planning study for the twinning of Highway 63 from Mildred Lake to the Athabasca River remains underway.

In 2017, it is anticipated the following will be started:

- The second stage paving project on the recently twinned portions of Highway 63;
- The planning study for the preliminary alignment of Highway 813 from Wabasca to the junction of proposed Highway 686; and
- The Environmental Study on the proposed Highway 686 alignment.

LARP Outcome 6: The 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

Description:

To address growing demand for recreational opportunities in the region and provide a secure land base to support tourism development for both residents and visitors, the Lower Athabasca Regional Plan provides for nine new Provincial Recreation Areas.

Progress:

Designation of the new Provincial Recreation Areas under the Provincial Parks Act was delayed in 2016 to coincide with the designation of the new conservation areas (refer to Strategy 16). It is anticipated the following areas will be designated under the Provincial Parks Act in 2018: 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

Description:

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, the Lower Athabasca Regional Plan provides for five new public land areas for recreation and tourism (PLARTs) development. These are: Lake Athabasca,

Richardson, Athabasca River, Clearwater River, and House River.

Progress:

Progress on designating the new PLARTs under the Public Lands Act was paused in 2016 due to a Public Lands Administration Regulation Judicial Review and signing of the Public Lands Administration Regulation Settlement Agreement. Recommendations will be put forward on the formal designations of the five proposed PLARTs following further work on the Landscape Management Plan and caribou range planning in 2017. Also of note, as part of the Land Management Plan initiative, preliminary discussions on public motorized access and recreation opportunities for the Richardson PLART were held in 2016.

31. Develop the regional parks plan for the Lower Athabasca
Alberta Environment and Parks – due 2013, deferred to 2018

Description:

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.

Progress:

In 2015, a draft Regional Parks Plan for the Lower Athabasca Region was completed. It is anticipated to be released in early 2018 to coincide with the establishment of the new Lower Athabasca Region conservation and recreation areas (refer to Strategy 16 and Strategy 29).

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

Alberta Environment and Parks – implementation is ongoing

Description:

The Lower Athabasca Regional Trail System Plan will evaluate existing trails and locate designated, sustainable land-based trails

for various motorized and non-motorized trail users, water based trails and routes, and potential associated activity areas. It will link communities, tourism destinations and other park and open space features. The plan's objective is to lay a framework for an enhanced recreation and tourism based trail system that will create opportunities for greater physical activity and enjoyment of the outdoors by all Albertans.

Progress:

Developing the Lower Athabasca Regional Trail System Plan was deferred in 2016 to consider the impact of the 2016 Fort McMurray wildfire as well as implications associated with public use of the trails as a result of caribou range planning. Work in the region continued with stakeholders to develop regionally significant trails, including the TransCanada Trail north (water) route. Moving forward, the Lower Athabasca Trail System Plan project will become aligned with related Alberta Environment and Parks priorities. Trails that contribute to the regional trails system will continue to be supported and developed on a project-by-project basis.

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

Description:

Data in the form of a recreation and tourism resource inventory that includes the completion of a scenic resource assessment inventory and a regional recreational demand and satisfaction survey is fundamental to informing recreation and tourism planning. This strategy assures the ongoing collection and analysis of relevant data to inform planning and help prioritize product, service and infrastructure development.

Progress:

In 2016, the ... collectively referred to as the Resource Data System of Inventories was used to inform development of Landscape Management Plans and related regional planning projects. It is expected to be used in 2017 to inform the development of the Wood Buffalo Region Tourism Asset Inventory Report and Product Development Plan and other potential 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, Alberta Agriculture and Forestry, Alberta Energy, Alberta Indigenous Relations, and Alberta Culture and Tourism – implementation is ongoing

Description:

The Lower Athabasca Regional Plan 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.

Progress:

In 2016, Alberta continued to implement the spirit and intent of the United Nations Declaration on the Rights of Indigenous Peoples in a manner consistent with constitutional and Alberta law so that First Nations and Métis peoples in the province are able to participate as equals in all aspects of Alberta's society while maintaining their cultures and unique identities. The Government of Alberta is committed to renewing its relationship with Indigenous communities, and continues to work with them to incorporate their interests in land-use planning.

Also in 2016, the Lower Athabasca Regional Plan Review Panel recommendations were posted on the landuse.alberta.ca website. These recommendations were generated by an independent review panel in response to six First Nations requesting a review of the regional plan. The Government of Alberta values its relationship with Indigenous peoples and continued undertaking actions to respond to the report recommendations.

Alberta Environment and Parks continued to work with First Nations and Métis on implementing the regional plan including developing the Biodiversity Management Framework, caribou range plans, Moose Lake Special Management Zone Plan, and Ronald Lake Bison herd management plan.

Finally, as part of the Government of Alberta's commitment to enhancing the relationship with Indigenous peoples in the region, a First Nations Practitioners' Working Group and Métis Workshop was initiated. Initial discussions also began with a few First Nation communities on community-based monitoring. This work is expected to continue through 2017.

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, Alberta Energy, Alberta Indigenous Relations, and Alberta Culture and Tourism – implementation is ongoing

Description:

The Richardson Backcountry Stewardship Initiative was originally set up as a discussion forum for the Government of Alberta and local First Nations and Métis organizations who expressed an interest in the Richardson Backcountry. The discussion forum was to address specific issues identified in the Richardson Backcountry area, such as impacts to treaty rights, fish and wildlife management, access management, economic/business opportunities, and management of new Wildland Provincial Parks and the Richardson Public Land Area for Recreation and Tourism.

Progress:

The Richardson Stewardship Backcountry Initiative is currently on hold. There were no formal meetings with Indigenous communities in 2016 as specific issues that were originally identified to be addressed in this initiative are now being undertaken through the newly established First Nations Practitioners' Working Group and Métis Workshops as well as several other planning initiatives. These initiatives include the development of the Landscape Management Plan, cooperative management pilot initiatives in the Richardson Wildland Provincial Park, Birch Mountains Wildland Provincial Park, and caribou range planning, all of which will continue in 2017.



**SOUTH
SASKATCHEWAN
REGIONAL PLAN
STRATEGIES**



Provincial Outcome:
Healthy Economy Supported by Our Land and Natural Resources

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

1. Tourism destination areas: develop and implement destination management strategies and destination management plans
Alberta Culture and Tourism – as soon as practicable


Description:

Alberta Culture and Tourism is enhancing tourism destination areas within the South Saskatchewan Region by engaging Indigenous communities, municipalities, industries and local stakeholders. Destination management strategies further enhance tourism in the Canadian Badlands, Southwest Alberta and Kananaskis areas.

Progress:

Working with Alberta Environment and Parks, Alberta Culture and Tourism developed a plan to guide engagement with municipalities, tourism associations, local businesses and 13 First Nations in the South Saskatchewan Region as well as the Métis Nation of Alberta to help inform development of the Castle Region Tourism Strategy. It is anticipated the final strategy will be approved in 2017.

As a result of a grant provided in 2015, the City of Lethbridge completed a Destination Management Plan for their area that identifies tourism opportunities, target markets, and potential future governance models. City council reviewed and approved the plan in late 2016. Alberta Culture and Tourism will continue to support the efforts of the City of Lethbridge as they implement the Destination Management Plan.



**Provincial Outcome:
Healthy Ecosystem 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 – completed in 2014, implementation is ongoing

Description:

The South Saskatchewan Region Air Quality Management Framework – For Nitrogen Dioxide, Ozone and Fine Particulate Matter (2014) supports the management of cumulative effects of emissions by setting triggers and limits for nitrogen dioxide, fine particulate matter, and ozone.

Progress:

Annual reports provide information on the status of ambient environmental conditions and the progress of management responses relative to the framework. An analysis of air quality for 2016 revealed framework limits were not exceeded for nitrogen dioxide; however, nitrogen dioxide triggers were crossed at three air monitoring stations. Analysis is underway for fine particulate matter and ozone for 2016 within this region.

In support of implementation of the framework, a draft management action plan for managing fine particulate matter in the South Saskatchewan Region Air Quality Management Zone has been developed and will be reviewed with airshed groups and other stakeholders in 2017. The final plan is anticipated to be completed late 2017 and provided to Environment and Climate Change

Canada.

Reports containing the 2015 and 2016 annual assessment results as well as an update on the progress of the management response are also expected to be released in 2017.

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 2018

Description:

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

Progress:

While the formal engagement process on the Draft Biodiversity Management Framework was completed in early 2016, Alberta Environment and Parks held further discussions with key stakeholders, local governments, and First Nations in the region to finalize the framework. The framework is expected to be completed in 2018, as further consultation may be necessary.

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 2018

Description:

Land (formerly linear) footprint management plans direct decision-making and management of human land disturbance, such as roadways, transmission lines, pipelines, industrial sites or cut-blocks on public lands in the South Saskatchewan Region.

Progress:

In 2016, a draft Land Footprint Management Plan for the Livingstone-Porcupine Hills was completed. The plan sets three overarching outcomes to help manage the extent and intensity of footprint. Motorized access and interior habitat are two management metrics for which thresholds are proposed to direct footprint development in a way that considers cumulative effects and long-term planning.

The Livingstone-Porcupine Hills Land Footprint Management Plan is anticipated to undergo public and First Nations consultation in the fall of 2017. The plan will be revised based on input received, then finalized and submitted for approval in 2018.

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

Alberta Environment and Parks – due in 2017; deferred to 2019

Description:

Land (formerly linear) footprint management plans outline a system that minimizes the duration, extent and rate of linear footprint development in order to meet South Saskatchewan Regional Plan and biodiversity management framework objectives. For Green Area (primarily forested) public lands along the Rocky Mountains, land footprint management plans consider recreation management and species recovery; while plans for the White Area (primarily settled) public lands covering the balance of non-private land within the region consider voluntary conservation offsets and similar tools.

Progress:

Planning for other Green Area public lands and White Area public lands in southeast Alberta was not initiated in 2016. The Kananaskis-Ghost Land Footprint Management Plan is anticipated to commence in late 2017 and bring similar results to the remaining Eastern Slopes Green Area.

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

Alberta Environment and Parks – completed in 2015, implementation is ongoing

Description:

Integrated Resource Plans (IRPs) represent government's resource management policy for public lands and resources within a well defined area and have guided decision-makers for over 30 years. The following IRPs remain in effect until they have been reviewed for their relevance and potentially incorporated in the regional plan: Kananaskis Country Subregional IRP, Ghost River Subregional IRP, Livingstone-Porcupine Hills Subregional IRP, Castle River Subregional IRP, Poll Haven IRP, Bow Corridor Local IRP, Eden Valley IRP, Crowsnest Corridor Local IRP, and Eastern Irrigation District Integrated Resource Management Strategy.

Progress:

The Livingstone-Porcupine Hills Subregional IRP has been reviewed and several provisions were identified that need to be assessed before the IRP may be incorporated into the regional plan. This assessment and incorporation of outstanding provisions will continue through land footprint planning, recreation management planning, and/or other operational planning activities.

7. Complete the Majorville Guidelines for Land and Resource Management

Alberta Environment and Parks – completed in 2015, implementation is ongoing

Description:

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 provide direction for managing public land and natural resources at Majorville. They encourage resource development in a way that reduces footprint and avoids or minimizes impacts on sensitive environmental and cultural areas, including impacts on lands important to Indigenous peoples.

Progress:

The Majorville Guidelines were completed and approved in 2015. Implementation of the guidelines continued throughout 2016. Related to this initiative, development of an Access Management Plan was initiated in 2016. A draft Access Management Plan is expected to be completed and discussed with stakeholders in 2017.

8. Establish new or expand existing conservation areas on provincial Crown land
Alberta Environment and Parks – as soon as practicable

Description:

Work is underway to complete the designation of new and expanded conservation areas on provincial Crown land. Designated conservation areas will help to manage conserved lands 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.

Progress:

In 2016, work continued on the process to formally designate the Castle Wildland Provincial Park and Castle Provincial Park. The Castle parks will be formally designated in early 2017. A draft management plan for the parks has been completed and will be undergoing consultation in 2017.

Timing of the designation of the remaining new conservation areas is dependent upon completion of the cancellation and compensation process for the subsurface agreements and surface disposition review.

The surface disposition review for the remaining conservation areas will need to be conducted prior to the establishment of the conservation areas under the Provincial Parks Act. Once this has been 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 Rangelands Act.

9. Establish the Pekisko Special Management Area and complete a management plan
Alberta Environment and Parks – due 2015, deferred to 2018

Description:

To conserve important grassland habitat and support maintenance of healthy ecosystems in the Foothills Parkland sub region, the Pekisko Heritage Rangeland was established in the South Saskatchewan Regional Plan. The South Saskatchewan Regional Plan recognizes the importance of managing the Pekisko Heritage Rangeland and Special Management Area to ensure quality outdoor recreation and appropriate nature-based tourism experiences while minimizing environmental impacts. Heritage rangelands preserve and protect natural features that are representative of Alberta's prairies. Grazing is used to maintain the grassland ecology.

Progress:

A working group was established in fall 2015 to develop a draft management plan for the Pekisko Heritage Rangeland and Special Management Area. The plan will identify management objectives and strategies for a variety of applicable land and resource objectives. Work continued in 2016 on the draft management plan. Preparations for engagement with Indigenous people, stakeholders and the public were initiated and are proposed for 2017. It is expected that the management plan will be completed by the fall of 2018.

10. Complete the development and evaluation of the Southeast Alberta Conservation Offset Pilot
Alberta Agriculture and Forestry – completed in 2015, implementation is ongoing

Description:

Offsets are enabled under the Alberta Land Stewardship Act and are identified as one of the important market based tools identified through the South Saskatchewan Regional Planning process to help meet conservation and stewardship values on private agricultural land. Key components for an offset system need to be considered at a local scale before being tested more broadly in Alberta. Alberta Agriculture and Forestry led a multi-stakeholder conservation offset pilot project in southeastern Alberta through the formation of the South East Alberta Conservation Offset Pilot Team and the collaborative efforts of industrial and agricultural stakeholders.

Progress:

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 available at [http://www1.agric.gov.ab.ca/\\$Department/deptdocs.nsf/all/sag14846](http://www1.agric.gov.ab.ca/$Department/deptdocs.nsf/all/sag14846)

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 – implementation is ongoing

Description:

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 South Saskatchewan Regional Plan 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.

Progress:

Annual reports provide information on the status of ambient environmental conditions, and the ongoing progress of management responses. Reporting is ongoing and can be found on the Alberta Environment and Parks website at: <http://aep.alberta.ca>

Work is ongoing for conducting trend assessments and assessing the influence of river flow on water quality indicators with reported trigger exceedances in 2014. Reports containing the 2015 and 2016 annual assessment results as well as an update on the progress of the management response are expected to be released in 2017.

12. Develop a comprehensive approach for groundwater

management

Alberta Environment and Parks – due 2017, deferred to 2018

Description:

The development of a comprehensive approach for groundwater management will: confirm priority issues and areas of concern and accelerate monitoring at existing wells in the areas of concern; develop and implement an enhanced regional monitoring program to focus on priority issues; continue groundwater mapping in southern Alberta under the Provincial Groundwater Inventory Program; and develop policy direction related to the connectivity of groundwater to nearby surface water sources.

Progress:

Groundwater mapping has been completed as well as an inventory of monitoring infrastructure and data. The existing monitoring program is continuing.

A review of the methodology for groundwater management framework development will be concluded in 2017. This process will result in guidelines for the development of groundwater management frameworks across the province. Certain methods may be tested in the South Saskatchewan Region in 2017 to inform this review and support a future Groundwater Management Framework for priority areas in the region.

13. Develop a water storage opportunities study for the South Saskatchewan River Basin
Alberta Agriculture and Forestry – completed in 2015

Description:

Water supply in the South Saskatchewan River Basin in Alberta is naturally subject to highly variable flows. Capture and controlled release of surface water runoff is critical in the management of the available water supply. Examining how we are managing existing reservoirs and the development of additional water storage sites are potential solutions to reduce the risk of water shortages for human use and the aquatic environment.

Progress:

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 key 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/irr15015](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/irr15015)

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 include building awareness and understanding of efficient use of land principles
Alberta Municipal Affairs – implementation is ongoing

Description:

A set of efficient use of land principles was developed to provide guidance for land use planners and decision makers on public and private lands to promote efficient use of land to reduce the footprint of human activities on Alberta's landscape.

Progress:

In 2016, the Government of Alberta, through Alberta Municipal Affairs and the Land Use Secretariat, promoted the efficient use of land in Alberta by building awareness of using the Integrated Land Management Tools Compendium and the Efficient Use of Land Implementation Tools Compendium. These tools compendiums assist land use planners and decision makers, such as municipalities, government departments, boards and agencies (e.g. Alberta Energy Regulator), to understand the variety of tools, and applications of them, that promote efficient use of land on both public and private lands.

The Government of Alberta continues to build awareness and educate land managers and decision makers so that efficient use of land becomes a normal way of making land use decisions.



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



SSRP Outcome 6: 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

Description:

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.

Progress:

Trail inventory work, including collection of information on recreation features such as staging and camping areas, was completed for the Livingstone area, with additional inventories and assessments being conducted within the Castle Provincial Park, Castle Wildland Provincial Park and Bob Creek Wildland Provincial Park. These inventories provide essential data required for the Regional Trails Plan and will be used to inform both regional and sub-regional planning efforts. Sub-regional recreation management planning for Porcupine Hills – Livingstone is ongoing and will also support the creation of the Regional Trails Plan.

Additional trail and recreation features inventories will be conducted

in 2017, moving north to the Public Land Use Zones in the Kananaskis and Ghost-Waiparous areas.

16. Address flood (2013) damaged recreation areas
Alberta Environment and Parks – as soon as practicable

Description:

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.

Progress:

In 2016, Alberta Parks completed 234 (or 88 per cent) of the 275 rehabilitation projects. Highlights included Bankside day use area redevelopment in Fish Creek Provincial Park; King Creek flood mitigation and reclamation; Oldman Dam-Boulder Run and Honeymoon Creek Equestrian Provincial Recreation Areas; and Kananaskis River mitigation.

Work will continue in 2017 on backcountry trail work and campground repairs; day use area repair and flood mitigation in the Elbow Valley and Highwood; and relocating a group campground in Bow Valley Provincial Park. All flood recovery projects are scheduled to be completed in 2018.

17. Complete recreation management planning for Porcupine Hills

Alberta Environment and Parks – due in 2015, deferred to 2018

Description:

Recreation Management Plans provide the framework for the management of recreation and parks areas to ensure quality outdoor recreation and nature-based tourism experiences while minimizing environmental impacts. The Porcupine Hills are a priority area for recreation management in the South Saskatchewan Region.

Progress:

Work on a draft Porcupine Hills – Livingstone Recreation Management Plan continued in 2016. It involved numerous meetings with stakeholders and First Nations, discussions at the South Saskatchewan Regional Plan Implementation First Nations Tables as well as four stakeholder recreation focused workshops. A draft plan is expected to be completed by fall 2017, with consultation to follow. The plan is intended to be finalized in early 2018 along with the Land Footprint Plan.

Formal establishment of a Public Land Use Zone in the Porcupine Hills area and implementation of an interim designated trail and camping network is anticipated for fall 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

Description:

Recreation Management Plans provide the framework for the management of recreation and parks areas to ensure quality outdoor recreation and nature-based tourism experiences while minimizing environmental impacts. The Livingstone, Willow Creek, Allison/Chinook, McLean Creek and Sibbald areas are priority recreation management areas in the South Saskatchewan Region.

Progress:

As described under Strategy 17, work on development of a Recreation Management Plan for the Porcupine Hills and Livingstone area has been initiated. This planning includes the Livingstone, Willow Creek, and Allison/Chinook areas. A draft plan is expected to be completed by fall 2017, with consultation to follow.

Formal establishment of the Livingstone Public Land Use Zone, and

implementation of an interim designated trail and camping network is anticipated for fall 2017.

After the Porcupine Hills and Livingstone plan work is completed, the focus will shift to the northern part of the region.

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

Description:

Recreation Management Plans provide the framework for the management of recreation and parks areas to ensure quality outdoor recreation and nature-based tourism experiences while minimizing environmental impacts. 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.

Progress:

Recreation management in the Castle is addressed in the Castle Management planning process currently underway. Recreation management planning for the Ghost-Waiparous area has not started.

Upon completion of the Porcupine Hills – Livingstone Recreation Management Plans, priority will shift to the Public Land Use Zones within the northern portion of the Eastern Slopes in the South Saskatchewan Region, including Kananaskis and Ghost-Waiparous.

Footprint planning, which guides recreation management plans, will begin for the remainder of the South Saskatchewan Region Eastern Slopes in 2017, as described under Strategies 4 and 5. Operational assessments of the related Public Land Use Zones will also begin, including trail inventories, review of existing plans, modelling and adjustments to management priorities in anticipation of recreation management plans being completed.

20. Create Public Lands Recreation Areas in the eastern slopes areas
Alberta Environment and Parks – as soon as practicable

Description:



This strategy will create new public land recreation areas in the eastern slopes to provide defined “no service” camping areas, improve access to trails, and ensure all regional sites within the provincial parks system are appropriately classed and consolidated and potential land transfers between ministries are reviewed to gain efficiencies in management approach.

Progress:

Public land recreation areas are being assessed within the recreation management planning process noted in strategies 18 and 19. In 2016 the Alberta Government enabled the use of violation tickets in designated Public Land Use Zones. Assessment of other needs for compliance and enforcement was undertaken in 2016 and additional recommendations are expected in 2017.

The establishment of Public Land Use Zones within the Livingstone and Porcupine areas was identified as a priority and it is anticipated these will be designated in 2017.

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

Alberta Environment and Parks – as soon as practicable

Description:

To optimize the recreation and tourism potential for both residents and visitors, the South Saskatchewan Regional Plan provides for three new Provincial Recreation Areas and five new Provincial Parks.

Progress:

In 2016, work continued on the process to formally designate the Castle Provincial Park and Castle Wildland Provincial Park. Capital project planning and investments in maintenance and refurbishment (e.g., washroom and kiosks) of several sites was also completed. Upgrades to Cypress Hills Provincial Park camping facilities, trails and boardwalk development and significant improvements in Kinbrook Island Provincial Park were key activities undertaken in 2016.

The Castle parks will be formally designated in early 2017. A draft management plan for the parks has been completed and will be undergoing consultation in 2017.

The surface disposition review for the remaining Provincial Parks

and Provincial Recreation Areas has been initiated and is anticipated to be completed in 2017. Once this has been addressed, the new and expanded 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.

It is anticipated that in 2017 project planning will continue and construction for several sites such as upgrading at West Bragg Creek Provincial Recreation Area and Bow River Campground densification will be completed.

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

Alberta Environment and Parks – due 2016; deferred to 2019

Description:

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.

Progress:

Regional Parks Planning was initiated but put on hold in 2015 in order to focus on the Castle parks. The South Saskatchewan Regional Parks Plan is anticipated to be re-initiated in 2018.

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

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

Alberta Environment and Parks – implementation is ongoing

Description:

Engage with First Nations and the Cross-Ministry Aboriginal Task Team to establish the South Saskatchewan Region First Nation Sub-table.

Progress:

In 2016, Alberta Environment and Parks and Alberta Indigenous Relations continued to collaborate with the group of thirteen First Nations in southern Alberta. Both ministries worked closely with First Nations consultation staff, elders, land users, and traditional knowledge holders to develop five key themes to drive South Saskatchewan Regional Plan implementation: 1) Indigenous stewardship practices, 2) understanding of treaty rights, 3) education and awareness, 4) incorporation of traditional land use and ecological knowledge in land and resource management, and 5) community-based monitoring. To help visualize this new paradigm for Indigenous inclusion in regional land use planning, a circle diagram was also jointly developed to frame the principles of integrated resource management in a manner that better reflect Indigenous values on the landscape. The sub-table continued to be heavily utilized by Government of Alberta staff from multiple ministries to begin building relationships crucial to successful implementation of the Land-use Framework in southern Alberta.

In 2017, Alberta Environment and Parks and Alberta Indigenous Relations will continue to build on the success of the sub-table in 2015 and 2016. This includes expanding the knowledge base of those participating at the sub-table to include youth, elders, and Indigenous leadership along with participation from Government of Alberta leadership, including Ministers. The sub-table will be heavily relied upon by Indigenous Relations staff in piloting the development of region-specific traditional knowledge best practices as well as a province-wide traditional knowledge policy. Work will also begin to chart a path forward for the inclusion of these five themes to be part of future amendments to the regional plan. Work plans and grants for each participating First Nation will be finalized for the 2017-18 fiscal year and approved by each First Nation's Chief and

Council and the Minister of Environment and Parks. A youth-elders workshop is scheduled for 2017, as well as a meeting of the 13 First Nations Chiefs and the Ministers of Environment and Parks and Indigenous Relations.

24. Continue First Nation involvement in watershed management planning initiatives

Alberta Environment and Parks – implementation is ongoing

Description:

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. Currently led by Alberta Indigenous Relations, the Treaty 7 First Nations water sub-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. This forum provides an opportunity for all parties to discuss areas of alignment, best practices, water policy and implementation.

Progress:

Alberta's Water for Life strategy commits to the completion of a Water Needs Assessments for the First Nations communities with reserve lands within the South Saskatchewan River Basin. All of the Treaty 7 First Nations have completed water needs assessments for their communities except the Stoney Nakoda First Nation; who will complete their Water Needs Assessment in 2018.

Building on the draft First Nations Water Agreement template, created by the Treaty 7 First Nations water sub-table in collaboration with the Governments of Alberta and Canada in 2010, progress will continue on individual Treaty 7 First Nations Water Agreements in 2017.

A number of water and watershed management initiatives including Watershed Planning Advisory Committees (WPACs) have also taken advantage of the success of the First Nations sub-table, including the Milk River Water Management Plan, source water protection planning for reserves in collaboration with the First Nations Technical Services Advisory Group (TSAG), and groundwater management. Alberta will continue to work with TSAG and the Treaty 7 First

Nations in developing source water protection plans for reserves.

25. Engage aboriginal peoples on initiatives to support tourism development

Alberta Culture and Tourism – implementation is ongoing

Description:

Tourism development provides opportunities for Indigenous communities to participate in the regional economy. Alberta Culture and Tourism will help Indigenous communities identify tourism and cultural experiences that may provide economic opportunities, while maintaining and seeking opportunities for traditional land use.

Progress:

In 2016, Head Smashed In Buffalo-Jump formed an Elders' advisory panel made up of representatives from the Kainai and Pikanii bands provided input to site management about the programs offered by Head Smashed In Buffalo-Jump and provided advice on cultural issues.

In 2016, a grant was provided to Blackfoot Crossing Historical Park, for the repatriation of significant artifacts held at the Royal Albert Memorial Museum in Exeter, England. Collaborative negotiations between Blackfoot Crossing and the museum occurred with the goal of identifying and approving a timeline for repatriation. Alberta Culture and Tourism and Alberta Indigenous Relations will continue to work with Blackfoot Crossing Historical Park to become more visitor-ready and to prepare for repatriation.

In 2017, a new Elders Advisory Panel at Head Smashed In Buffalo-Jump will meet with site management to provide feedback and suggestions regarding public programming offered at this UNESCO World Heritage Site. The work of this panel will be evaluated to ensure alignment with its Terms of Reference.

Alberta Culture and Tourism has provided a grant to the Aboriginal Tourism Association of Canada to undertake the following initiatives in 2017:

- develop an inventory of Indigenous tourism operators in Alberta,
- host regional sessions to engage prospective and current Indigenous tourism operators in hopes of creating an Alberta association ,
- support Indigenous tourism entrepreneurs through a

targeted program and,

- host an Alberta day at the International Aboriginal Tourism Conference in Calgary in November 2017.

26. 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

Description:

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.

Progress:

In 2016, South Saskatchewan Region First Nations Sub-table participants including First Nations groups, Alberta Culture and Tourism, Alberta Environment and Parks, and Alberta Indigenous Relations shared maps, presentations, oral information and more to support discussions regarding allowable activities, including access to and hunting on Crown lands within the region.

The government and its agencies have utilized the sub-table to have conversations with First Nations communities regarding South Saskatchewan Regional Plan implementation strategies, as well as larger government policies, including:

- Climate Leadership
- First Nations Consultation Policy Renewal
- Alberta Utilities Commission
- Alberta Innovates Technology Futures
- First Nations Technical Services Advisory Group
- Calgary Metropolitan Partnership
- Crown Managers Partnership

In 2017, the exchange of information between First Nations and Government of Alberta staff will continue via the First Nations sub-table. Information products will continue to be developed to meet the needs of the participating First Nations.

SSRP Outcome 8: Community development needs are anticipated and accommodated

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

Alberta Municipal Affairs – implementation is ongoing


Description:

The land-use policies in the Municipal Government Act were repealed when the South Saskatchewan Regional Plan was adopted by the Government of Alberta in 2014, and pre-existing land-use policy statements were updated and incorporated into the regional plan 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.

Progress:

In 2016, municipalities continued to implement these policies in the course of carrying out their planning responsibilities and day to day land use decision making processes. Municipalities are required to review and align their regulatory instruments with regional plans. For the South Saskatchewan Regional Plan, a statutory compliance declaration is required by September 1, 2019.

A positive example of the relationships being built with municipalities and the land-use planning process is the City of Lethbridge's involvement in the South Saskatchewan Region First Nations Sub-table. Through the City's participation on the sub-table they have created positive relationships with the region's First Nation communities, allowing them to pursue collaborative projects, such as the City of Lethbridge Traditional Knowledge and Use Assessment. This project is the first comprehensive exploration of traditional land use by any municipality in Alberta, and is being pursued collaboratively between the City and the Blackfoot Confederacy. The city's participation on the sub-table has also deepened their understanding of Indigenous traditional knowledge and led them to explore ways in which they can use and apply this understanding in neighbourhood and park planning in the city. These collaborative partnerships are a best practice for other municipalities to consider when trying to include or strengthening their relationship with Indigenous communities.



LAND-USE FRAMEWORK 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 land-use decisions may adversely affect the continued exercise of their constitutionally protected rights, and the input from such consultations continues to be reviewed prior to the decision.

LARP: In 2016, Alberta Environment and Parks held seventeen different meetings with Indigenous people for the Lower Athabasca Region Landscape Management Plan, Biodiversity Management Framework and the Navigation Hazard Application on the Athabasca River. In addition various project updates and communications were sent via email and regular mail.

SSRP: In 2016, Alberta Environment and Parks held eighteen one-on-one meetings with Indigenous communities for the South Saskatchewan Region Biodiversity Management Framework, Porcupine Hills and Livingstone Land Footprint and Recreation Management Plans, Public Land Use Zones and Milk River Management Plan. Presentations were provided on these projects to the South Saskatchewan Region First Nation Sub Table. In addition various project updates and communications were sent via email and regular mail.

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), and the Government of Alberta's Policy on Consultation with Metis Settlements on Land and Natural Resource Management (2015).

Lead Ministries: Alberta Environment and Parks and Alberta Indigenous Relations, with support from Alberta Agriculture and Forestry, Alberta Energy, and Alberta Culture and Tourism.

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 2016, the Lower Athabasca Region experienced a permanent net loss of 530 hectares of agricultural land during the year. This represents a decrease of 0.1 per cent from the total agricultural land base available in 2015.

SSRP: In 2016, the South Saskatchewan Region experienced a permanent net loss of 810 hectares of agricultural land. This represents a decrease of 0.0001 percent from the total agricultural land base available in 2015.

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.

This indicator reports on the total area, in hectares, of non-crown agricultural land for Alberta and each Land-use Framework

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LAND-USE
FRAMEWORK
SUPPORTING
INDICATORS

Land-use Framework Regional Plans

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 2016, the number of parcels 10 to 80 acres in size increased by 6 parcels to 2,964 parcels. This value reflects 14.5 per cent of all parcels (approximately 20,500 parcels) located in the Lower Athabasca Region, and has grown 5.7 per cent over the 2011 to 2016 period.

SSRP: In 2016, the number of parcels 10 to 80 acres in size increased by 1 parcel to 28,916 parcels. This value reflects 16.2 percent of all parcels (approximately 178,895 parcels) located in the South Saskatchewan Region, and has remained relatively stable at that value over the 2011 to 2016 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	Area of Agricultural Land (hectares)											
	2011	2012	y/y change	2013	y/y change	2014	y/y change	2015	y/y change	2016	y/y change	Total Change 2011-2016
Lower Athabasca	545,850	545,260	-0.1%	544,520	-0.1%	543,930	-0.1%	542,380	-0.3%	541,850	-0.1%	-0.7%
South Saskatchewan	6,147,680	6,128,200	-0.3%	6,132,960	0.1%	6,144,480	0.2%	6,140,410	-0.1%	6,139,600	0.0%	-0.1%
North Saskatchewan	5,153,380	5,151,580	0.0%	5,160,780	0.2%	5,160,400	0.0%	5,158,570	0.0%	5,158,280	0.0%	0.1%
Lower Peace	789,510	816,430	3.4%	817,260	0.1%	818,140	0.1%	807,340	-1.3%	805,970	-0.2%	2.1%
Upper Peace	2,185,110	2,183,800	-0.1%	2,183,360	0.0%	2,181,400	-0.1%	2,179,490	-0.1%	2,172,250	-0.3%	-0.6%
Upper Athabasca	1,844,470	1,844,390	0.0%	1,843,000	-0.1%	1,840,390	-0.1%	1,837,040	-0.2%	1,837,060	0.0%	-0.4%
Red Deer	4,347,670	4,354,340	0.2%	4,355,220	0.0%	4,356,740	0.0%	4,359,380	0.1%	4,358,800	0.0%	0.3%
Alberta	21,013,670	21,024,000	0.0%	21,037,100	0.1%	21,045,480	0.0%	21,024,610	-0.1%	21,013,810	-0.1%	0.0%

Air Quality

Definition: Ambient air quality triggers and limits for substances of concern within the region are based on Alberta Ambient Air Quality Objectives, and Canadian Ambient Air Quality Standards. These are provincial objectives and national standards 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 2016, two air quality indicators, nitrogen dioxide (NO₂) and sulfur dioxide (SO₂) were continuously measured at 18 air monitoring stations. Preliminary results for the indicators used to manage ambient air quality indicate that:

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

SSRP: In 2016, three air quality indicators, nitrogen dioxide (NO₂), fine particulate matter (PM_{2.5}) and ozone (O₃) were continuously measured at 5 air monitoring stations. Preliminary

results for the indicators used to manage ambient air quality indicate that:

- No limits were exceeded;
- Triggers were crossed at 3 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 2016 has not been completed yet because the analysis is still underway.

Notes: Triggers are established to allow for proactive management. Finding a trigger exceedance 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 to ensure air quality is managed at acceptable levels.

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 Agricultural Land Parcels 10-80 Acres in Size											
	2011	2012	y/y change	2013	y/y change	2014	y/y change	2015	y/y change	2016	y/y change	Total Change 2011-2016
Lower Athabasca	2,805	2,952	5.2%	2,888	-2.2%	2,932	1.5%	2,958	0.9%	2,964	0.2%	5.7%
South Saskatchewan	28,785	29,233	1.6%	28,783	-1.5%	28,850	0.2%	28,915	0.2%	28,916	0.0%	0.5%
North Saskatchewan	28,983	29,693	2.4%	29,873	0.6%	30,211	1.1%	30,573	1.2%	30,791	0.7%	6.2%
Lower Peace	2,422	2,520	4.0%	2,550	1.2%	2,601	2.0%	2,607	0.2%	2,638	1.2%	8.9%
Upper Peace	6,529	6,803	4.2%	6,818	0.2%	6,928	1.6%	7,082	2.2%	7,146	0.9%	9.5%
Upper Athabasca	9,705	10,131	4.4%	10,141	0.1%	10,290	1.5%	10,423	1.3%	10,551	1.2%	8.7%
Red Deer	11,618	11,665	0.4%	11,992	2.8%	12,134	1.2%	12,264	1.1%	12,325	0.5%	6.1%
Alberta	90,847	92,997	2.4%	93,045	0.1%	93,946	1.0%	94,822	0.9%	95,331	0.5%	4.9%

* Based on assessment of NO₂ only

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).

LUF Region	Air Quality Management Framework				
	2012	2013	2014	2015	2016
Lower Athabasca					
Number of Air Quality Monitoring Stations	15	15	16	16	18
Number of stations where a trigger was crossed	10	11	10	7	7
Number of stations where a limit was exceeded	0	0	0	0	0
South Saskatchewan					
Number of Air Quality Monitoring Stations			4	5	5
Number of stations where a trigger was crossed			2	5	3*
Number of stations where a limit was exceeded			0	0	0*

Building Permits

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

LARP: In the Lower Athabasca Region, there were 1,437 building permits issued with a total value of

\$471 million in 2015, a value decrease of 42.2 per cent from 2014. The value of building permits in the Lower Athabasca Region accounted for 2.8 per cent of the provincial total.

SSRP: In the South Saskatchewan Region, there were 25,707 building permits issued with a total value of \$8,193 million in

2015, a value decrease of 10.0 per cent from 2014. The value of building permits in the South Saskatchewan Region accounted for 49.0 per cent of the provincial total.

Notes: Data are obtained from a monthly survey of Canadian municipalities. Although this indicator only applies to 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/#/).

Number of Building Permits												
LUF Region	2010	2011	y/y change	2012	y/y change	2013	y/y change	2014	y/y change	2015	y/y change	Total Change 2010-2015
Lower Athabasca	3,030	2,651	-12.5%	3,000	13.2%	2,828	-5.7%	2,486	-12.1%	1,437	-42.2%	-52.6%
South Saskatchewan	25,294	23,505	-7.1%	26,298	11.9%	27,697	5.3%	28,554	3.1%	25,707	-10.0%	1.6%
North Saskatchewan	17,823	17,782	-0.2%	20,532	15.5%	21,150	3.0%	24,423	15.5%	23,476	-3.9%	31.7%
Lower Peace	387	310	-19.9%	355	14.5%	263	-25.9%	294	11.8%	276	-6.1%	-28.7%
Upper Peace	1,705	1,606	-5.8%	2,158	34.4%	1,968	-8.8%	2,334	18.6%	2,152	-7.8%	26.2%
Upper Athabasca	928	930	0.2%	672	-27.7%	743	10.6%	814	9.6%	685	-15.8%	-26.2%
Red Deer	3,486	3,442	-1.3%	3,607	4.8%	4,064	12.7%	4,127	1.6%	4,012	-2.8%	15.1%
Alberta	52,653	50,226	-4.6%	56,622	12.7%	58,713	3.7%	63,032	7.4%	57,745	-8.4%	9.7%

Value of Building Permits (\$Millions)												
LUF Region	2010	2011	y/y change	2012	y/y change	2013	y/y change	2014	y/y change	2015	y/y change	Total Change 2010-2015
Lower Athabasca	\$1,542	\$1,232	-20.1%	\$1,663	35.0%	\$1,273	-23.5%	\$984	-22.7%	\$471	-52.1%	-69.5%
South Saskatchewan	\$4,318	\$5,859	35.7%	\$6,162	5.2%	\$8,033	30.4%	\$8,345	3.9%	\$8,193	-1.8%	89.7%
North Saskatchewan	\$4,459	\$4,430	-0.7%	\$5,339	20.5%	\$6,158	15.3%	\$7,084	15.0%	\$6,527	-7.9%	46.4%
Lower Peace	\$103	\$89	-13.6%	\$138	55.1%	\$98	-29.0%	\$92	-6.1%	\$54	-41.3%	-47.6%
Upper Peace	\$321	\$433	34.9%	\$541	24.9%	\$611	12.9%	\$614	0.5%	\$549	-10.6%	71.0%
Upper Athabasca	\$197	\$190	-3.6%	\$119	-37.4%	\$214	79.8%	\$285	33.2%	\$206	-27.7%	4.6%
Red Deer	\$453	\$485	7.1%	\$646	33.2%	\$668	3.4%	\$776	16.2%	\$712	-8.2%	57.2%
Alberta	\$11,393	\$12,719	11.6%	\$14,608	14.9%	\$17,055	16.8%	\$18,179	6.6%	\$16,712	-8.1%	46.7%

Business Establishments

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

LARP: In 2015, 3,787 establishments with employees were registered in the Lower Athabasca Region. This represents a 0.4 per cent decrease from 3,801 in 2014.

SSRP: In 2015, 70,879 establishments with employees were registered in the South Saskatchewan Region. This represents a 1.1 per cent increase from 70,140 in 2014.

Notes: This indicator is based on data from Statistics Canada,

Canadian Business Patterns. Due to the data validation process used by Statistics Canada, older data may be revised. Data revisions are updated and shown as the most current numbers. Although this indicator only applies to the South Saskatchewan Regional Plan, 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.

Region	Number of Businesses											Total Change 2010-2015
	2010	2011	y/y change	2012	y/y change	2013	y/y change	2014	y/y change	2015	y/y change	
Lower Athabasca	3,327	3,299	-0.8%	3,421	3.7%	3,729	9.0%	3,801	1.9%	3,787	-0.4%	12.1%
South Saskatchewan	65,198	65,385	0.3%	66,943	2.4%	71,764	7.2%	70,140	-2.3%	70,879	1.1%	8.0%
North Saskatchewan	54,806	54,418	-0.7%	56,106	3.1%	60,620	8.0%	59,188	-2.4%	59,649	0.8%	8.1%
Lower Peace	1,321	1,313	-0.6%	1,323	0.8%	1,405	6.2%	1,398	-0.5%	1,356	-3.0%	2.6%
Upper Peace	7,294	7,277	-0.2%	7,444	2.3%	8,038	8.0%	7,889	-1.9%	7,972	1.1%	8.5%
Upper Athabasca	6,413	6,294	-1.9%	6,535	3.8%	6,991	7.0%	6,917	-1.1%	6,855	-0.9%	6.4%
Red Deer	11,862	11,902	0.3%	12,081	1.5%	12,288	1.7%	12,508	1.8%	12,477	-0.2%	4.9%

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 all 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.

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. This indicator combines both officially designated and other lands into one conserved land measure.

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 2016, 48 of 95 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 \$2.6 billion or about 3 per cent of all major construction projects (valued at \$91.6 billion) in the region. Nine pipeline projects accounted for \$3.8 billion while 38 oil sands construction projects accounted for \$85.2 billion. The Lower Athabasca Region accounted for about 39

per cent of the total value of Alberta projects.

Notes: 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	Cost of Construction (\$billions)									
	2012		2013		2014		2015		2016	
	Number	Value (\$B)	Number	Value (\$B)	Number	Value (\$B)	Number	Value (\$B)	Number	Value (\$B)
Total Major Projects	126	\$123.2	121	\$122.3	100	\$108.6	101	\$90.1	95	\$91.6
Infrastructure Projects	57	\$3.1	55	\$9.3	38	\$1.3	55	\$1.8	48	\$2.6
Oil Sands Projects	53	\$111.8	53	\$110.1	47	\$96.0	34	\$81.1	38	\$85.2
Pipeline Projects	15	\$8.3	13	\$10.3	15	\$11.2	12	\$7.2	9	\$3.8

Cost of Living

Definition: The Consumer Price Index (CPI) is an 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 133.7 in 2015 to 135.2 in 2016, indicating that consumer prices increased 1.1 per cent in 2016; the same rate of inflation seen in 2015. Prices for food went up 1.4 per cent, but these price increases were partially offset by declines in energy prices (down 8.0 per cent); meanwhile, prices for shelter remained essentially flat (down 0.2 per cent).

Notes: Data for this indicator is not available at the Land Use Framework regional level, so data for Alberta as a whole is used as a proxy for the Lower Athabasca Region. The Government of Alberta conducted a spatial price survey in 2016, through which several price indices were developed for various Alberta communities relative to Edmonton. Based on the 2016 survey results, consumer prices in Fort McMurray were 14.5 per cent higher than those in Edmonton. For related information, refer to the Income and Rental Affordability indicators in this report.

Methodology: Monthly consumer price index data are aggregated into an annual average value for each category of commodity.

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.alberta.ca).

Consumer Price Index Category for Alberta	Alberta Consumer Price Index (as of December 1 st of the reported year)									
	2012	2013	y/y change	2014	y/y change	2015	y/y change	2016	y/y change	Total Change 2012-2016
All-items CPI	127.1	128.9	1.4%	132.2	2.5%	133.7	1.1%	135.2	1.1%	6.0%
All-items excluding food and energy	123.4	125.1	1.4%	128.1	2.4%	131.0	2.2%	133.3	1.7%	7.5%
Energy	163.2	165.8	1.6%	171.5	3.3%	146.6	-17.0%	135.8	-8.0%	-20.2%
Food	128.1	130.8	2.1%	134.6	2.8%	139.6	3.6%	141.5	1.4%	9.5%
Household operations, furnishings and equipment	110.9	112.8	1.7%	115.5	2.3%	118.7	2.7%	121.3	2.2%	8.6%
Recreation, education and reading	105.9	106.4	0.5%	108.3	1.8%	110.1	1.6%	110.9	0.6%	4.5%
Shelter	152.5	156.3	2.5%	162.5	3.8%	162.9	0.2%	162.5	-0.2%	6.1%
Transportation	126.9	127.6	0.5%	130.4	2.1%	128.2	-1.7%	130.5	1.8%	2.8%

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 2016, 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.

The Government also made progress in promoting 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: The number of people employed in the Lower Athabasca Region was 112,614 in 2016. This represents a decrease of 5.0 per cent from 118,504 people employed in 2015.

SSRP: The number of people employed in the South Saskatchewan Region was 972,216 in 2016. This represents a decrease of 1.1 per cent from 982,916 people employed in

2015.

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 (<http://work.alberta.ca/labour/labour-market-information.html>). 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	2015	y/y change	2016	y/y change	Total change 2010-2016
Lower Athabasca	101,132	109,301	8.1%	116,811	6.9%	118,175	1.2%	120,038	1.6%	118,504	-1.3%	112,614	-5.0%	11.4%
South Saskatchewan	869,233	896,753	3.2%	925,903	3.3%	947,998	2.4%	970,629	2.4%	982,916	1.3%	972,216	-1.1%	11.8%
North Saskatchewan	761,868	791,929	3.9%	820,833	3.6%	845,173	3.0%	863,981	2.2%	878,593	1.7%	869,487	-1.0%	14.1%
Lower Peace	15,205	15,739	3.5%	16,133	2.5%	16,095	-0.2%	16,147	0.3%	16,205	0.4%	15,406	-4.9%	1.3%
Upper Peace	70,634	73,307	3.8%	75,076	2.4%	75,451	0.5%	76,220	1.0%	75,792	-0.6%	72,120	-4.8%	2.1%
Upper Athabasca	47,051	48,703	3.5%	49,393	1.4%	49,587	0.4%	49,726	0.3%	49,635	-0.2%	47,095	-5.1%	0.1%
Red Deer	159,577	164,569	3.1%	168,751	2.5%	172,621	2.3%	176,859	2.5%	179,556	1.5%	174,862	-2.6%	9.6%
Alberta	2,024,700	2,100,300	3.7%	2,172,900	3.5%	2,225,100	2.4%	2,273,600	2.2%	2,301,200	1.2%	2,263,800	-1.6%	11.8%

First Nations (Participation Rate) in the Richardson Initiative

Definition: Involvement of First Nations in the Richardson Backcountry Stewardship Initiative considers impacts to the treaty right 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: The Richardson Backcountry Stewardship Initiative is currently on hold. Specific issues that were identified in the Initiative are now being considered in a number of other planning initiatives such as the Landscape Management Plan, Caribou Range Plan, and cooperative management pilot initiatives in the Richardson and Birch Mountains Wildland Provincial Parks.

Development of a draft Landscape Management Plan will continue throughout 2017. The newly established First Nations Practitioners' Working Group and the Metis Workshops will also provide an opportunity to discuss issues of concern.

Notes: This indicator is not expressed as a rate. The Richardson Initiative was originally set up as a discussion forum for the Government of Alberta and First Nations who expressed an interest in the Richardson Backcountry.

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 2016, the volume of fluid tailings reported by industry was 1,206 million cubic meters of fluid tailings contained within tailings ponds in the Lower Athabasca Region. This is an increase of 72 million cubic meters from 2015, when the reported volume was 1,134 million cubic meters.

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.

Lower Athabasca Region	Fluid Fine Tailings produced from Bitumen Extraction							
	2013	2014	y/y Change	2015	y/y Change	2016	y/y Change	Total Change 2012-2016
Volume (million m ³)	976	1,075	52	1,134	106	1,206	72	230
Footprint (km ²)	220	220	0	228	8	N/A	N/A	N/A

N/A: Data are not available for this year

Gross Domestic Product

Definition: Gross domestic product (GDP) is 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 2016, the Lower Athabasca Region's GDP declined by 3.4 per cent, and was estimated at \$24.006 billion in constant 2010 dollars.

SSRP: In 2016, the South Saskatchewan Region's GDP declined by 3.1 per cent, and was estimated at \$120.392 billion in constant 2010 dollars.

Notes: GDP estimates are in constant 2010 dollars. Each year, the estimates are re-calculated. Estimates for previous years are revised and new estimates for the current year are

generated. Because of this, data reported in previous years is not comparable.

Methodology: Regional GDP estimates are based on provincial level GDP by industry data, coupled with employment profiles according to the 2011 National Household Survey and three-year moving average employment changes according to Labour Force Survey data.

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	Estimated GDP (\$Millions, in constant 2010 dollars)													
	2010	2011	y/y change	2012	y/y change	2013	y/y change	2014	y/y change	2015	y/y change	2016	y/y change	Total Change 2010-2016
Lower Athabasca	\$20,697	\$22,713	9.7%	\$22,418	-1.3%	\$23,707	5.8%	\$25,212	6.3%	\$24,839	-1.5%	\$24,006	-3.4%	16.0%
South Saskatchewan	\$106,029	\$112,173	5.8%	\$117,209	4.5%	\$123,231	5.1%	\$129,722	5.3%	\$124,255	-4.2%	\$120,392	-3.1%	13.5%
North Saskatchewan	\$81,998	\$87,937	7.2%	\$92,703	5.4%	\$99,281	7.1%	\$104,266	5.0%	\$100,274	-3.8%	\$96,015	-4.2%	17.1%
Lower Peace	\$2,041	\$2,197	7.7%	\$2,236	1.7%	\$2,331	4.3%	\$2,450	5.1%	\$2,328	-5.0%	\$2,164	-7.0%	6.1%
Upper Peace	\$10,257	\$11,117	8.4%	\$11,314	1.8%	\$11,812	4.4%	\$12,471	5.6%	\$11,850	-5.0%	\$10,939	-7.7%	6.6%
Upper Athabasca	\$5,941	\$6,413	7.9%	\$6,503	1.4%	\$6,772	4.1%	\$7,089	4.7%	\$6,741	-4.9%	\$6,294	-6.6%	6.0%
Red Deer	\$19,387	\$20,727	6.9%	\$21,553	4.0%	\$22,906	6.3%	\$23,863	4.2%	\$22,997	-3.6%	\$21,514	-6.4%	11.0%
Alberta	\$246,350	\$263,277	6.9%	\$273,935	4.0%	\$290,041	5.9%	\$305,073	5.2%	\$293,284	-3.9%	\$281,324	-4.1%	14.2%

Groundwater

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

LARP: The Groundwater Management Framework has been in place since 2012, however, with only interim triggers for groundwater quality and no triggers for groundwater quantity. Monitoring of the groundwater networks in the North Athabasca Oil Sands (NAOS) and South Athabasca Oil Sands (SAOS) has been ongoing since 2012 to support the finalization of triggers (as per LARP Schedule C), with a pause in 2015 to conduct a review and optimization of the regional groundwater monitoring networks. Monitoring activities re-commenced in 2016 and will continue in 2017, including an analysis of the information collected to date.

A review of the methodology for groundwater management

framework development will be concluded in 2017. This process will result in guidelines for the development of groundwater management frameworks across the province, including future amendments to the Groundwater Management Framework for the Lower Athabasca Region. Triggers for groundwater quality and quantity in the Lower Athabasca Region will be determined following the guidance developed and using the monitoring data collected to date.

Notes: This indicator only applies to the Lower Athabasca Regional Plan.

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 2016, there were 19 permits and requirements issued for Historic Resource Impact Assessments, and a total of 40 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 2016.

SSRP: In 2016, there were 116 permits and requirements issued for Historic Resource Impact Assessments, and a total of 297 historic sites that were either re-assessed or newly discovered. The total number of designated Provincial Historic Resources in the region is 165, and 2 new sites were

designated in 2016.

Notes: Figures exclude historic sites designated by federal and municipal governments. Under the Historical Resources Act, the Minister of Culture and Tourism may designate and protect a provincial historic resource associated with an important aspect of Alberta's natural or human history and is of outstanding provincial significance. 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	2016	2013	2014	2015	2016	2013	2014	2015	2016	2016
Lower Athabasca	57	49	23	19	198	173	84	40	0	0	0	0	14
South Saskatchewan	109	119	86	116	359	684	200	297	2	2	2	2	165
North Saskatchewan	76	91	52	59	472	391	181	159	0	0	1	2	116
Lower Peace	15	13	7	14	68	25	7	100	0	0	0	0	3
Upper Peace	33	34	28	38	78	88	22	130	0	0	1	1	21
Upper Athabasca	34	29	23	23	190	194	165	149	0	0	0	0	11
Red Deer	36	35	22	19	66	75	85	93	1	0	1	1	39
Alberta	360	370	241	288	1,431	1,630	744	968	3	2	5	6	369

Income (Personal or Average Total)

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

LARP: The average total income of individuals reporting taxes in the Lower Athabasca Region was \$86,975 in 2014. This represents a 4.09 per cent increase from \$83,558 in 2013, considerably higher than the provincial average of \$61,110 in 2014.

SSRP: The average total income of individuals reporting taxes in the South Saskatchewan Region was \$64,158 in 2014. This represents a 4.14 per cent increase from \$61,606 in 2013, slightly higher than the provincial average of \$61,110 in 2014.

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	2014	y/y Change	Total Change 2012-2014
Lower Athabasca	\$80,730	\$83,558	3.50%	\$86,975	4.09%	7.74%
South Saskatchewan	\$59,650	\$61,606	3.28%	\$64,158	4.14%	7.56%
North Saskatchewan	\$54,410	\$56,372	3.61%	\$57,814	2.56%	6.26%
Lower Peace	\$41,951	\$42,111	0.38%	\$42,522	0.98%	1.36%
Upper Peace	\$56,285	\$57,864	2.81%	\$60,844	5.15%	8.10%
Upper Athabasca	\$49,281	\$51,044	3.58%	\$52,669	3.18%	6.87%
Red Deer	\$50,583	\$52,847	4.48%	\$54,663	3.44%	8.07%
Alberta	\$57,055	\$59,043	3.48%	\$61,110	3.50%	7.11%

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 2016, the employment rate in the Lower Athabasca Region was 69.1 per cent, down from 72.6 per cent in 2015. The unemployment rate increased to 9.3 per cent in 2016 from 7.9 per cent in 2015, while the participation rate fell from 78.8 per cent in 2015 to 76.1 per cent in 2016.

SSRP: At the end of 2016, the employment rate in the South Saskatchewan Region was 66.4 per cent, down from 68.4 per cent in 2015. The unemployment rate increased from 6.1 per cent in 2015 to 8.8 per cent in 2016, while the participation rate

increased from 72.8 per cent in 2015 to 72.9 per cent in 2016.

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	Labour Force Statistics									
	2012	2013	y/y change	2014	y/y change	2015	y/y change	2016	y/y change	Total Change 2012-2016
Lower Athabasca										
Participation Rate	80.1%	78.9%	-1.20%	78.4%	-0.50%	78.8%	0.40%	76.1%	-2.70%	-4.00%
Unemployment Rate	4.4%	4.2%	-0.20%	4.7%	0.50%	7.9%	3.20%	9.3%	1.40%	4.90%
Employment Rate	76.6%	75.6%	-1.00%	74.8%	-0.80%	72.6%	-2.20%	69.1%	-3.50%	-7.50%
South Saskatchewan										
Participation Rate	73.6%	72.5%	-1.10%	71.8%	-0.70%	72.8%	1.00%	72.9%	0.10%	-0.70%
Unemployment Rate	4.8%	4.7%	-0.10%	4.8%	0.10%	6.1%	1.30%	8.8%	2.70%	4.00%
Employment Rate	70.1%	69.1%	-1.00%	68.4%	-0.70%	68.4%	0.00%	66.4%	-2.00%	-3.70%
Alberta										
Participation Rate	73.6%	73.1%	-0.50%	72.7%	-0.40%	73.0%	0.30%	72.5%	-0.50%	-1.10%
Unemployment Rate	4.6%	4.6%	0.00%	4.7%	0.10%	6.0%	1.30%	8.1%	2.10%	3.50%
Employment Rate	70.2%	69.8%	-0.40%	69.3%	-0.50%	68.6%	-0.70%	66.6%	-2.00%	-3.60%

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

Definition: Area of land disturbance, that is non-forestry related, 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. 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 (commonly referred to as “Crown” or “Green” area).

LARP: In 2015, non-forestry related land disturbances covered approximately 78,331 hectares or 3.36 per cent of the productive land base of public land in the Lower Athabasca Region. This is a 0.17 per cent increase in land disturbance over the previous year when 74,378 hectares or 3.19 per cent were disturbed. The dominant human footprint types as of 2015 included: forestry (9.09 per cent), energy (1.80 per cent), urban, rural & industrial development (1.05 per cent) and other (0.51 per cent).

Notes: In previous years’ reporting, the human footprint estimates were standardized to the 2012 ABMI Wall-to-Wall Inventory of Human Footprint before reporting. The new method used beginning this year is to standardize to the 2014 ABMI Wall-

to-Wall Inventory of Human Footprint. As a result, the data has been updated for previous years with the new methodology, and previously reported results are not comparable.

Land disturbance happens when human activity causes changes on the landscape from natural conditions, with associated impacts on related natural resources. This indicator only applies to the Lower Athabasca region. Refer to Area of Land Disturbance on Public Land for more information.

Methodology: The Alberta Biodiversity Monitoring Institute (ABMI) measures human footprint annually in three kilometre by seven kilometre areas sampled systematically across the province. Human footprints on the productive land base of public lands in the Lower Athabasca Region are estimated from these polygons in the region. Human footprint estimates are then standardized to the 2014 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.

Lower Athabasca Region	Land Disturbance on Productive Public Land Base on Public Land							
	2012	2013	y/y Change	2014	y/y Change	2015	y/y Change	Total Change 2012-2015
Land Disturbance (hectares)	63,324	69,968	6,644	74,378	4,410	78,331	3,953	15,007
Per cent Disturbed	2.71%	3.00%	0.29%	3.19%	0.19%	3.36%	0.17%	0.65%

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 2015, 5.6 per cent of the public land base in the region was disturbed. This is a 0.3 percentage point increase in land disturbance from 2014. The dominant human footprint types on the public land base in the Lower Athabasca Region in 2014 were forestry and energy.

SSRP: In 2015, 11.1 per cent of the public land base in the region was disturbed. This is a 0.3 percentage point increase in land disturbance from 2014. The dominant human footprint type on the public land base in the South Saskatchewan Region in 2015 was forestry.

Notes: In previous years' reporting, the human footprint estimates were standardized to the 2012 ABMI Wall-to-Wall Inventory of Human Footprint before reporting. The new method used beginning this year is to standardize to the 2014 ABMI Wall-to-Wall Inventory of Human Footprint. As a

result, the data has been updated for previous years with the new methodology, and previously reported results are not comparable.

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 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 2014 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	y/y Change	2014	y/y Change	2015	y/y Change	Total Change 2012-2015
Lower Athabasca	5.2%	5.2%	0.0%	5.3%	0.1%	5.6%	0.3%	0.4%
South Saskatchewan	9.9%	10.4%	0.5%	10.8%	0.4%	11.1%	0.3%	1.2%

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 land disturbance for each year of interest.

LARP: In 2015, the total amount of native vegetation on the public land base of the region was 94.4 per cent. This represents a 0.3 per cent decrease from 2014 when the native land cover was 94.7 per cent, and a 2.8 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 2015, the total amount of native vegetation on the public land base of the region was 88.9 per cent. This represents a 0.3 per cent decrease from 2014 when the native land cover was 89.2 per cent, and a 2.9 per cent decrease from 1999 when native land cover was 91.8 per cent. The public land base covers approximately 12 per cent of the South Saskatchewan Region

Notes: Due to the change in methodology for calculating land

disturbance on public land (see the Land Disturbance on Public Land indicator), the data has been updated for previous years with the new methodology, and previously reported results are not comparable.

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. Although this indicator only applies to the Lower Athabasca Regional Plan, data are reported for the South Saskatchewan Region as well in order to provide contextual information to Albertans.

For related information, see the Land Disturbance on Public Land (Area) 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							Total Change 2012-2015
	2012	2013	y/y Change	2014	y/y Change	2015	y/y Change	
Lower Athabasca	94.8%	94.8%	0.0%	94.7%	-0.1%	94.4%	-0.3%	-0.4%
South Saskatchewan	90.1%	89.6%	-0.5%	89.2%	-0.4%	88.9%	-0.3%	-1.2%

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 \$80.78 billion in 2016. This represents a decrease of 5.1 per cent from \$76.68 billion in 2015. The region accounts for 34.8 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 \$31.76 billion in 2016. This represents an increase of 14.3 per cent from \$27.22 billion in 2015. The region accounts for 13.7 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. Corrections have been applied to the data from previous years, so comparisons to previously reported results cannot be made. The values have been recalculated going back to 2010.

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 valued at \$5Billion or greater (\$Billions)													
	2010	2011	y/y Change	2012	y/y Change	2013	y/y Change	2014	y/y Change	2015	y/y Change	2016	y/y Change	Total Change 2010-2016
Lower Athabasca	\$98.65	\$129.50	23.8%	\$116.26	-11.4%	\$112.30	-3.5%	\$93.78	-19.7%	\$76.68	-22.3%	\$80.78	5.1%	-22.1%
South Saskatchewan	\$34.11	\$28.30	-20.5%	\$21.76	-30.0%	\$25.33	14.1%	\$23.13	-9.5%	\$27.22	15.0%	\$31.76	14.3%	-7.4%
North Saskatchewan	\$21.54	\$24.11	10.6%	\$37.61	35.9%	\$53.88	30.2%	\$61.15	11.9%	\$50.61	-20.8%	\$74.24	31.8%	71.0%
Lower Peace	\$4.38	\$4.77	8.2%	\$3.21	-48.8%	\$3.64	11.9%	\$4.38	16.8%	\$4.61	5.0%	\$20.48	77.5%	78.6%
Upper Peace	\$7.98	\$3.52	-126.9%	\$5.01	29.9%	\$6.36	21.2%	\$11.55	44.9%	\$4.91	-134.9%	\$5.02	2.1%	-58.9%
Upper Athabasca	\$5.08	\$5.69	10.7%	\$8.64	34.1%	\$16.42	47.4%	\$13.17	-24.7%	\$16.14	18.4%	\$17.52	7.9%	71.0%
Red Deer	\$4.45	\$4.49	1.0%	\$3.40	-32.0%	\$2.54	-34.1%	\$2.08	-22.0%	\$2.33	10.7%	\$2.49	6.4%	-78.6%
Alberta	\$176.19	\$200.38	12.1%	\$195.90	-2.3%	\$220.48	11.1%	\$209.23	-5.4%	\$182.50	-14.6%	\$232.28	21.4%	24.1%

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 2016 data, oil sands investment (non-conventional oil extraction) fell to \$16.6 billion, down 29.1 per cent from \$23.4 billion in 2015.

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 in this report for related information.

Lead Ministry: Alberta Treasury Board and Finance

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

*Actual #Preliminary

Region	Non-conventional Oil Extraction Investment (\$Billions)									
	2012*	2013*	y/y Change	2014*	y/y Change	2015#	y/y Change	2016#	y/y Change	Total Change 2012-2015
Alberta	\$26.2B	\$29.0B	10.7%	\$35.7B	23.1%	\$23.4B	-52.5%	\$16.6B	-29.1%	-16.4%

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 2015 calendar year, Alberta’s total crude bitumen production, which consists of mined and in-situ bitumen production reached 2.5 million barrels per day, a 9 per cent increase over 2.3 million barrels per day produced 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.

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.alberta.ca).

Region	Oil Sands Production Rate (Million Barrels per Day)							
	2012	2013	y/y Change	2014	y/y Change	2015	y/y Change	Total Change 2012-2015
Alberta	1.9	2.1	9.5%	2.3	8.7%	2.5	8.0%	24.0%

Oil Sands Projects (Current/ Approved/Pending)

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

Alberta: As of September 2016, the status of reported oil sands projects in Alberta is as follows:

- 131 operating - producing bitumen and/or oil sands product
- 6 construction - on-site construction has commenced for these projects
- 17 approved - regulatory approvals required for these projects to operate have been received
- 17 applications – project application is being reviewed by

Alberta Energy Regulator and/or Alberta Environment and Parks.

The project numbers are lower in 2016 as a result of projects being suspended in 2016.

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 (osip.alberta.ca/map).

Project Status for Alberta	Number of Oil Sands Projects				
	2012	2013	2014	2015	2016
Operating	55	127	133	139	131
Construction	18	13	14	10	6
Approved	51	15	17	18	17
Application	71	29	33	24	17

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 2016, 6339 hectares of land in Alberta met the definition of permanent reclamation, an increase of 2.8 per cent from 2015, and representing an almost a 33.7 per cent increase since 2009. In addition 104 hectares of land have been certified as reclaimed.

During the 2016 Fort McMurray wildfire, 13.5 hectares of land previously defined as permanently reclaimed was removed from this category and utilized as firebreaks to protect critical

infrastructure. Limited reclamation activity also occurred in 2016 due to wildfire recovery work in the Fort McMurray area. Areas removed from the permanent reclamation category for firebreaks and new developments are reflected in the 2016 value.

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).

Oil Sands Area	Land Defined As Permanent Reclamation (hectares)							Total Change 2013-2016
	2013	2014	y/y Change	2015	y/y Change	2016	y/y Change	
Alberta	5,447	5,901	8.3%	6,164	4.5%	6,339	2.8%	16.4%

Parks per Capita (or Designated Open Space for Recreation)

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 5.01 hectares of parks for each person as of December 2016. The total land area of parks is 638,035 hectares represented by 34 parks and inhabited by a projected 2016 population of 127,285. 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 2016. The total land area of parks is 426,619 hectares represented by 126 parks and based on a projected 2016 population of 1,891,500. 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.

Each year, population estimates are revised due to new and updated data sources, and new projections for the current year are generated. Because of this, data reported in previous years is not comparable. Refer to the Population indicator in this report for related data and information.

Lead Ministry: Alberta Environment and Parks

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

Parks per Capita by LUF Region	Parks per Capita			
	2013	2014	2015	2016
Lower Athabasca				
Number of Parks	34	34	34	34
Total Area of Parks (ha)	638,035	638,035	638,035	638,035
Population	123,850*	127,710*	128,345*	127,285#
Parks per Capita	5.15	5.00	4.97	5.01
South Saskatchewan				
Number of Parks	126	126	126	126
Total Area of Parks (ha)	426,619	426,619	426,619	426,619
Population	1,776,440*	1,830,650*	1,867,830*	1,891,500#
Parks per Capita	0.24	0.23	0.23	0.23

*Estimated # Projected

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 127,285 people were projected to be residing within the Lower Athabasca Region as of July 1, 2016, representing approximately three per cent of the total Alberta population (4.2 million). The population in the Lower Athabasca Region is projected to have dropped 0.8 per cent from 2015 to 2016, well below Alberta's projected growth rate of 1.2 per cent.

SSRP: Approximately 1,891,500 people were projected to be residing within the South Saskatchewan Region as of July 1, 2016, representing approximately 44.6 per cent of the total Alberta population (4.2 million). The population in the South Saskatchewan Region is projected to have grown 1.3 per cent from 2015 to 2016, slightly above Alberta's projected growth rate of 1.2 per cent.

Notes: Population estimates are also generated by other data sets, 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 Open Government portal. Each year, estimates are revised with new and updated data sources and new projections for the current year are generated. As a result, data reported in previous years are not directly comparable. Estimates are from Statistic Canada's population estimates, reported as of July 1 of the year stated, and are based on the 2011 Census.

Methodology: Population estimates by Census Divisions for 2013-2015 (Statistics Canada) were regionally allocated to LUF regions based on the spatial distribution of the population. The 2016 populations were projected using the cohort component method, applying long term population projection assumptions produced by Treasury Board and Finance (released June 21, 2016).

Lead Ministry: Alberta Treasury Board and Finance

Source: Data are available from Alberta Treasury Board and Finance (finance.alberta.ca) and the Government of Alberta's Open Data Website (<https://open.alberta.ca/opendata>)

LUF Region	Population							Total Change 2013-2016
	2013*	2014*	y/y Change	2015*	y/y Change	2016#	y/y Change	
Lower Athabasca	123,850	127,710	3.1%	128,345	0.5%	127,285	-0.8%	2.8%
South Saskatchewan	1,776,440	1,830,650	3.1%	1,867,830	2.0%	1,891,500	1.3%	6.5%
North Saskatchewan	1,513,835	1,558,040	2.9%	1,583,125	1.6%	1,606,090	1.5%	6.1%
Lower Peace	38,500	38,975	1.2%	39,275	0.8%	39,485	0.5%	2.6%
Upper Peace	139,150	142,225	2.2%	143,615	1.0%	144,070	0.3%	3.5%
Upper Athabasca	126,790	127,310	0.4%	126,070	-1.0%	125,905	-0.1%	-0.7%
Red Deer	289,180	295,995	2.4%	308,190	4.1%	311,335	1.0%	7.7%
Alberta	4,007,748	4,120,897	2.8%	4,196,457	1.8%	4,245,670	1.2%	5.9%

*Estimated # Projected

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 2016, the operating cost of production in Alberta oil sands, reported by operators, was \$16.6 billion. Of this, pre-payout operating costs were \$7.2 billion; post-payout project operating costs were \$9.3 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) and the Alberta Energy Regulator (aer.ca/data-and-publications/statistical-reports).

Cost of Oil Sands Production in Alberta	Operating costs (\$Millions)											Total Change 2011-2016
	2011	2012	y/y Change	2013	y/y Change	2014	y/y Change	2015	y/y Change	2016	y/y Change	
Pre-payout	\$4,617	\$6,633	30.4%	\$6,957	4.7%	\$8,271	15.9%	\$7,850	-5.4%	\$7,231	-8.6%	36.1%
Post-payout	\$11,146	\$11,638	4.2%	\$12,445	6.5%	\$12,837	3.1%	\$10,757	-19.3%	\$9,338	-15.2%	-19.4%
Total	\$15,764	\$18,271	13.7%	\$19,402	5.8%	\$21,108	8.1%	\$18,607	-13.4%	\$16,569	-12.3%	4.9%

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 2016, the Crown collected a total of \$852 million as royalties from Alberta oil sands development. This represents a 42 per cent decrease from \$1.462 billion collected in 2015.

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 include 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).

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	2016	y/y Change	Total Change 2011-2016
Pre-Payout	\$460,844	\$670,679	46%	\$946,676	41%	\$1,476,559	56%	\$258,366	-83%	\$157,760	-39%	-66%
Post-Payout	\$4,082,706	\$3,141,845	-23%	\$3,344,788	6%	\$4,649,259	39%	\$1,178,919	-75%	\$677,128	-43%	-83%
Non-Project	\$53,226	\$157,309	196%	\$120,037	-24%	\$108,185	-10%	\$25,578	-76%	\$17,430	-32%	-67%
Total	\$4,596,776	\$3,969,833	-14%	\$4,411,501	11%	\$6,234,003	41%	1,462,863	-77%	\$852,316	-42%	-81%

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 2015 timber year, a total of 2,750 hectares was managed using enhanced forestry – an increase of 602 hectares from the previous timber year. This total consisted of 2,114 hectares of stand tending techniques such as pre-commercial thinning, fertilizing, pruning, and commercial thinning, and 636 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 tending activities and planting of genetically improved trees that occurred during the 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 number of trees planted 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 Techniques used in the Lower Athabasca Region	Public Land Managed For Enhanced Forestry (hectares)							
	2012	2013	y/y change	2014	y/y change	2015	y/y change	Total Change 2012-2015
Stand Tending	1,778	2,430	26.8%	877	-177.1%	2,114	58.5%	15.9%
Plantings	1,104	795	-38.9%	1,271	37.5%	636	-99.8%	-73.6%
Total	2,882	3,225	10.6%	2,148	-50.1%	2,750	21.9%	-4.8%

Recreational Infrastructure

Definition: The number of campsites, both serviced and un-serviced, within designated Provincial 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 2016, there were 1,303 campsites and 1,910 kilometres of designated trails in the Lower Athabasca Region.

Within Gregoire Lake Provincial Park, approximately 5 km of trails were impacted by the Horse River Wildfire. The impacted trails will be assessed in 2017.

SSRP: In 2016, there were 6,424 campsites in the South Saskatchewan Region. Data on the number of kilometres of designated trails in the South Saskatchewan Region continues to be assessed due to the damage caused by the 2013 flood.

Work on flood damaged trails has continued throughout 2016 and is nearly completed; final work on damaged trails is expected to be completed by 2017. Construction of the 80 km High Rockies trail started in 2016 and is anticipated to be completed in 2017.

Notes: Campsite numbers are based on 2015 inventory of facilities within designated Provincial 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>).

Recreational Infrastructure by LUF Region	Recreational Infrastructure				
	2012	2013	2014	2015	2016
Lower Athabasca					
Total Number of Campsites	1,212	1,212	1,212	1,303	1,303
Total Length of Trails (km)	1,910	1,910	1,910	1,910	1,910
South Saskatchewan					
Total Number of Campsites	N/A	N/A	6,424	6,424	6,424
Total Length of Trails (km)	N/A	N/A	N/A	N/A	N/A

N/A: Data are not available for this year.

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 2016, 36.5 per cent of surveyed adult Albertans visited a provincial park. Of those,

91.2 per cent were satisfied with the quality of services and facilities the parks provided.

In 2016, 93.9 per cent of adult Albertans felt that Alberta's historic resources are important, and

93.9 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. Important changes: An error in the data that caused the results to be reported for the wrong year has been corrected in this report (the survey result reported was in reference to the previous year, as opposed to the survey year). The measure "per cent of Albertans likely to visit a provincial park in the next 12 months" is no longer available. It will be removed from this indicator starting with next year's report.

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)

N/A: Data are not available for this year.

Alberta	Surveyed Adult Albertans				
	2012	2013	2014	2015	2016
Visited a Provincial Park	32.1%	33.7%	28.4%	33.6%	36.5%
Satisfaction with Provincial Parks	85.6%	86.4%	88.8%	91.4%	91.2%
Likely to Visit a Provincial Park in the Next 12 Months	72.6%	71.2%	71.8%	71.6%	N/A
Historical Resources are Important	94.2%	93.9%	94.2%	93.8%	93.9%
Value of Historical Resources for Recreation	95.7%	96.5%	97.1%	96.4%	93.9%

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 2016 than it was in 2015. Wood Buffalo was the only community to have a lower vacancy rate in 2016 than 2015, likely due in part to the Fort McMurray wildfire that destroyed a number of homes, and the resulting influx of construction workers to help rebuild.

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 Lower Athabasca Region.

Lead Ministry: Alberta Seniors and Housing

Source: Data are available through Alberta Seniors and Housing (<http://www.seniors-housing.alberta.ca/housing/1740.html>) and Canada Mortgage and Housing Corporation (<https://www.https://www03.cmhc-schl.gc.ca/catalog/productDetail.cfm?lang=en&cat=59&itm=17&fr=1495132410281>).

Community	Average Two-Bedroom Rental Rate				
	2012	2013	2014	2015	2016
Wood Buffalo	\$2,002	\$2,162	\$2,118	\$1,841	\$1,454
Cold Lake	\$1,278	\$1,475	\$1,703	\$1,049	\$991
Lac La Biche	\$1,020	\$1,054	\$1,097	\$1,131	\$1,123
Bonnyville	\$1,121	\$1,242	\$1,357	\$1,146	\$975

Community	Average Two-Bedroom Vacancy Rates				
	2012	2013	2014	2015	2016
Wood Buffalo	5.9%	6.7%	10.6%	30.7%	19.3%
Cold Lake	0.0%	3.0%	3.9%	16.1%	24.4%
Lac La Biche	16.3%	6.7%	5.5%	7.5%	16.7%
Bonnyville	9.1%	0.0%	4.7%	22.0%	52.9%

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 end of 2016, 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 end of 2016, 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 a variety of sources, including the Alberta Biodiversity Monitoring Institute (abmi.ca). Related data are also 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	2016
Lower Athabasca	8	8	9	9	9
South Saskatchewan	25	25	27	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 (Banff, Lake Louise, Kananaskis, Canmore and Jasper).

Alberta: The occupancy rate for Alberta (excluding resorts) decreased from 59 per cent in 2015 to 52 per cent in 2016. The average daily room rate in 2016 was \$132 per night – a decrease of 6 per cent over the 2015 average daily rate of \$140 per night.

Notes: Data are not available at the land-use region level. Data on overnight stays was previously reported under this indicator, but that data is no longer available as of 2015.

Lead Ministry: Alberta Culture and Tourism

Source: Data are available from Alberta Culture and Tourism (<http://www.culturetourism.alberta.ca/tourism/research-and-statistics/statistics/alberta-tourism-market-monitor/>).

Tourism Occupancy in Alberta	2012	2013	2014	2015	2016
Alberta Occupancy (excluding resorts)	66%	68%	68%	59%	52%
Average Daily Room Rate	\$132	\$138	\$143	\$140	\$132
Overnight Stays at Hotels and Motels	25.7%	23.7%	21.2%	N/A	N/A
Overnight Stays with Friends and Relatives	61.6%	63.7%	66.2%	N/A	N/A

N/A: Data are no longer available.

Tourism Visitation

Definition: Total person-visits encompass all domestic visitors (Alberta residents and Canadians from other provinces) who travelled to or within Alberta for tourism purposes.

LARP: In 2015, there were 991,000 person-visits to or within the Lower Athabasca Region, an increase of 5.5% over the 939,000 person-visits made in 2014.

SSRP: In 2015, there were 10,998,000 person-visits to or within the South Saskatchewan Region, a decrease of 4.5% from the 11,506,000 person-visits made in 2014.

Notes: Visitors may or may not have stayed overnight. Prior to 2015, this data included both domestic and international travelers. It has since been determined that the sample size provided by the international travel survey makes it un-reliable for including in this indicator. The methodology used to calculate this indicator has changed to using the Travel Survey of Residents of Canada dataset only, and the results updated from the current reporting year back to 2012. This data used represents only domestic person-visits to or within Alberta made by Canadians. It is estimated that this domestic travel accounts for 95% of all person-visits to or within Alberta. The numbers reported in previous progress reports are not comparable. Although this indicator only applies to the LARP, data are

reported for all regions in order to provide contextual information to Albertans.

Methodology: Data from the Travel Survey of Residents of Canada is collected by Statistics Canada and is reported by Census Division. Alberta Culture and Tourism further aggregates the data into Land Use Framework regions by combining the data as follows:

LUF Region	Census Divisions included
South Saskatchewan	1, 2, 3, 5, 6
Red Deer	4, 8
North Saskatchewan	7, 9, 10, 11, 15
Upper Athabasca	13, 14
Upper Peace	18, 19
Lower Peace	17
Lower Athabasca	12, 16

Lead Ministry: Alberta Culture and Tourism

Source: Data are available from Alberta Culture and Tourism (<http://www.culturetourism.alberta.ca/tourism/quick-facts/>). 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).

LUF Region	Domestic Person-Visits in Alberta by LUF region (in thousands)							
	2012	2013	y/y change	2014	y/y change	2015	y/y change	Total change 2012-2015
South Saskatchewan	12,055	11,932	-1.0%	11,506	-3.6%	10,988	-4.5%	-8.9%
Red Deer	3,123	3,177	1.7%	3,205	0.9%	2,953	-7.9%	-5.4%
North Saskatchewan	13,218	13,876	5.0%	14,715	6.0%	14,776	0.4%	11.8%
Upper Athabasca	1,263	1,573	24.6%	1,639	4.2%	1,466	-10.5%	16.1%
Upper Peace	1,033	1,072	3.8%	966	-9.9%	1,058	9.5%	2.4%
Lower Peace	235	336	42.9%	303	-9.7%	265	-12.7%	12.6%
Lower Athabasca	909	944	3.8%	939	-0.5%	991	5.5%	9.0%
Alberta	31,837	32,911	3.4%	33,273	1.1%	32,497	-2.3%	2.1%

Tourism Visitor Expenditures

Definition: Total tourism expenditures from all domestic travelers (Alberta residents and Canadians from other provinces) who travelled within Alberta for tourism purposes.

LARP: In 2015, total tourism expenditures in the Lower Athabasca Region was \$241 million, a decrease of 5.4 per cent from \$229 million in 2014.

SSRP: In 2015, total tourism expenditures in the South Saskatchewan Region was \$2,248 million, a decrease of 4.9 per cent from \$2,365 million in 2014.

Notes: Expenditures include food and beverage, accommodation, transportation, retail, recreation and entertainment.

Notes: Prior to 2015, data included both domestic and international travelers; however, smaller sample sizes since then makes this a less reliable indicator. The indicator now relies on the Travel Survey of Residents of Canada dataset only so results have been updated for 2012 through 2015. This data represents expenditures made during domestic person-visits to or within Alberta made by Canadians. Domestic travel expenditure is

estimated to account for approximately 80% of all tourist travel related expenditures from person-visits to Alberta. Figures reported in previous reports are not comparable. Although this indicator only applies to the LARP, data are reported for all regions in order to provide contextual information to Albertans.

Methodology: Data from the Travel Survey of Residents of Canada is collected by Statistics Canada and reported by Census Division (CD). Alberta Culture and Tourism further aggregates the data into Land-Use Framework regions by combining the data as follows: South Saskatchewan contains CD 1, 2, 3, 5, 6; Red Deer contains CD 4, 8; North Saskatchewan contains CD 7, 9, 10, 11, 15; Upper Athabasca contains CD 13, 14; Upper Peace contains CD 18, 19; Lower Peace contains CD 17; and Lower Athabasca contains CD 12 and 16.

Lead Ministry: Alberta Culture and Tourism

Source: Data are available from Alberta Culture and Tourism (<http://www.culturetourism.alberta.ca/tourism/quick-facts/>). 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).

LUF Region	Domestic Tourism Expenditure in Alberta by LUF region (in \$thousands)							
	2012	2013	y/y change	2014	y/y change	2015	y/y change	Total change 2012-2015
South Saskatchewan	2,401,721	2,364,295	-1.6%	2,365,067	0.0%	2,248,270	-4.9%	-6.4%
Red Deer	395,700	409,815	3.6%	407,814	-0.5%	341,680	-16.2%	-13.7%
North Saskatchewan	2,630,904	2,843,553	8.1%	2,917,270	2.6%	2,935,402	0.6%	11.6%
Upper Athabasca	174,094	173,514	-0.3%	222,708	28.4%	218,101	-2.1%	25.3%
Upper Peace	139,546	182,710	30.9%	201,116	10.1%	146,724	-27.0%	5.1%
Lower Peace	35,344	54,333	53.7%	54,554	0.4%	44,757	-18.0%	26.6%
Lower Athabasca	224,822	233,200	3.7%	229,161	-1.7%	241,448	5.4%	7.4%
Alberta	6,002,131	6,261,421	4.3%	6,397,691	2.2%	6,176,382	-3.5%	2.9%

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 decreased from 224,518 vehicles in 2014 to 207,170 vehicles in 2015, a decrease of 7.7 per cent.

SSRP: The daily average two-way traffic volume on major highways in the South Saskatchewan Region increased from 1,530,178 vehicles in 2014 to 1,582,947 vehicles in 2015, an increase of 3.5 per cent.

Notes: The Transportation Traffic Growth data reflects the changes in traffic volumes broken down into each of the Regional Plan areas for the reported years. The traffic volumes are estimated from data collected by the departments permanent Automated

Traffic Recorders and are expressed as Average Annual Daily Traffic (AADT) values, which represents the daily average two-way traffic on the province's highways.

Methodology: The permanent Automated Traffic Recorders (ATR) are located on major Alberta highways throughout the province. The Regional Plan boundaries were used to spatially select the ATR's for each Regional Plan area. The (AADT) values for the ATR's in each region were summated and the growth rate determined by comparing the results to previous years data.

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	Two-way Traffic Counts (vehicles/day)							
	2012	2013	y/y change	2014	y/y change	2015	y/y change	Total change 2012-2015
Lower Athabasca	216,243	224,372	3.6%	224,518	0.1%	207,170	-7.7%	-4.2%
South Saskatchewan	1,435,212	1,481,031	3.1%	1,530,178	3.2%	1,582,947	3.5%	10.3%
North Saskatchewan	1,177,267	1,227,546	4.1%	1,304,684	5.9%	1,345,780	3.2%	14.3%
Lower Peace	14,818	15,102	1.9%	15,520	2.7%	14,687	-5.4%	-0.9%
Upper Peace	192,714	195,595	1.5%	210,535	7.1%	199,362	-5.3%	3.5%
Upper Athabasca	150,118	151,024	0.6%	155,102	2.6%	151,339	-2.4%	0.8%
Red Deer	364,985	375,912	2.9%	392,277	4.2%	392,174	0.0%	7.5%
Alberta	3,551,357	3,670,582	3.2%	3,832,814	4.2%	3,893,459	1.6%	9.6%

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 2016, 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:

- No limits were exceeded;
- Triggers were crossed at the Old Fort water quality station for 4 of 38 indicators (i.e., dissolved uranium, dissolved lithium, sulphate and dissolved cobalt).

SSRP: In 2015, 15 primary and 6 secondary water quality indicators were measured monthly at nine monitoring stations in the South Saskatchewan Region. Preliminary data for this indicator is not available.

Notes: Triggers are established to signal potential change in ambient environmental conditions and allow for proactive management. The finding of trigger exceedances does not signal that surface water quality conditions 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 Management Framework				
	2012	2013	2014	2015	2016
Lower Athabasca (38 indicators, 1 water quality monitoring station)					
No. of indicators where a trigger was crossed	3	5	4	3	4
No. of stations where a trigger was crossed	1	1	1	1	1
No. of indicators where a limit was exceeded	0	0	0	0	0
No. of stations where a limit was exceeded	0	0	0	0	0
South Saskatchewan (15 primary and 6 secondary indicators, 9 water quality monitoring stations)					
No. of indicators where a trigger was crossed			3	N/A	N/A
No. of stations where a trigger was crossed			4	N/A	N/A
No. of indicators where a limit was exceeded			0	N/A	N/A
No. of stations where a limit was exceeded			0	N/A	N/A

N/A: Data are not available

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: 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. The 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

In 2016:

- No weekly water withdrawal limits were exceeded;
- No adaptive management triggers were crossed;
- Development of ecosystem status indicators continued considering alignment with the Biodiversity Management Framework. Work on the ecological knowledge gaps to support ecological indicator and trigger development continued.

The analysis of adaptive management triggers was based on preliminary flow data of the Athabasca River measured at the McMurray station (Water Survey of Canada gauge 07DA001 “Athabasca River below Fort McMurray”) and will be reassessed once finalized Water Survey of Canada flow data is available for 2016.

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

Sources: Alberta Environment and Parks (aep.alberta.ca) - Water allocation data are available upon request from the Environmental Management System, water use data are available upon request from the Water Use Reporting System, and preliminary flow data are available upon request from the Water Information System, Kisters Inc. The Surface Water Quantity Management Framework for the Lower Athabasca River is available at: <http://aep.alberta.ca/water/programs-and-services/river-management-frameworks/athabasca-river-water-management-framework.aspx>

Environment and Climate Change Canada – Final flow data are available from Water Survey of Canada (<https://wateroffice.ec.gc.ca/>).

Lower Athabasca Region	Surface Water Quantity Management Framework
	2016
Weekly Water Withdrawal Limits Exceeded	0
Adaptive Management Triggers Crossed	0

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	2016
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