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Alberta  Government

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**Little Smoky and A La Peche  
Caribou Range Plan**

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June 2, 2016

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## EXECUTIVE SUMMARY

Alberta's Range Plan for the Little Smoky and A La Peche Caribou Ranges presents a combination of habitat and population management actions, addressing the objectives of Alberta's woodland caribou recovery plan and policy, and the federal recovery strategies for Boreal and Southern Mountain woodland caribou populations.

Caribou recovery in the Little Smoky and A La Peche Caribou Ranges depends on addressing habitat-related factors that result in excessive predation rates on caribou populations. This requires both short and long term strategies and actions towards a future where caribou populations can be self-sustaining. Current habitat conditions in the Little Smoky and A La Peche Caribou Ranges will not support self-sustaining caribou populations. Full recovery of sufficient habitat to support self-sustaining caribou is anticipated to take decades.

These ranges include important forest and energy resources that continue to support local Alberta communities and the provincial economy. This Range Plan supports a working landscape where caribou and industrial activity co-exist, with strict regulation, investment in aggressive and innovative approaches, and careful monitoring of outcomes.

Caribou are an important part of the lives and traditions of Alberta's Indigenous peoples. This plan creates opportunities for Indigenous peoples to support and contribute to caribou recovery.

Alberta's approach is a focused strategy towards achieving self-sustaining populations. Many tools will be used including habitat restoration on seismic lines, wolf population management, creation of a caribou rearing facility for the Little Smoky population and stricter requirements for resource development.

The Range Plan identifies commitments to:

- Work with oil and gas companies to reschedule and provide voluntary extensions for developments, with increased flexibility in the tenure system to contribute to achievement of caribou goals and objectives.
- Reserve from disposition all remaining coal, metallic minerals, peat, sand and gravel rights.
- Restoration of legacy seismic lines to ensure establishment of appropriate vegetation within five years and ensuring that future seismic development is sensitive to caribou conservation and recovery requirements.
- Require integrated land management (ILM) for all industrial activities to reduce current and future footprint.
- Develop stringent requirements for new oil and gas approvals.
- Focus forest harvesting in areas where harvesting has already occurred.
- Continue population management of wolves, and the alternate prey of wolves (that is, moose, elk and deer), to avoid near-term extirpation of the caribou populations.
- Establish a caribou rearing facility to improve population growth for the Little Smoky caribou population.

- Engage Indigenous communities in opportunities to support achievement of the Range Plan.
- Support travel on approved corridors within the ranges to ensure both hunting access for alternate prey management and protection of forest growth on restored seismic lines.
- Ensure assessments, monitoring and research occurs, as needed, to track Range Plan accomplishments and assist in achieving Range Plan goals and objectives.
- Review and improve the Range Plan regularly, through adaptive management, to ensure achievement of plan goals and objectives.

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## 1.0 CARIBOU RECOVERY PLANNING IN ALBERTA

In Alberta, woodland caribou (*Rangifer tarandus caribou*) are classified as two ecotypes: mountain<sup>1</sup> and boreal<sup>2</sup>. Woodland caribou are designated as *Threatened* under Alberta's *Wildlife Act*. The nationally defined Boreal and Central Mountain woodland caribou populations are similarly designated as *Threatened* under Canada's *Species at Risk Act* (SARA).

The *Alberta Woodland Caribou Recovery Plan* (2005) and *A Woodland Caribou Policy for Alberta* (2011) guide caribou conservation and recovery in the province.

In October 2012, the Government of Canada released the *Recovery Strategy for the Woodland Caribou (Rangifer tarandus caribou), Boreal Population in Canada* (the Boreal Recovery Strategy). The strategy sets out requirements for range and action plans to support the goal of self-sustaining status for all remaining local populations of boreal woodland caribou in Canada. The strategy outlines requirements for critical habitat protection and management with the intent that woodland caribou recovery is to be achieved through a combination of habitat and population management.

In addition, in June 2014, the Government of Canada finalized and adopted the *Recovery Strategy for the Woodland Caribou (Rangifer tarandus caribou), Southern Mountain Population in Canada* (the Southern Mountain Recovery Strategy), which applies to all of the mountain ecotype woodland caribou in Alberta. The Southern Mountain Recovery Strategy is comparable to the Boreal Recovery Strategy in most details.

Approximately 23 per cent of Alberta is covered by caribou range, overlapping significant natural resources. There are twelve boreal and three southern mountain woodland caribou populations currently remaining on provincial lands in Alberta. One additional southern mountain caribou population remains in Jasper National Park and is under the jurisdiction of the federal government. The local population in Banff National Park was extirpated in 2009, from the Park and adjacent provincial lands.

Alberta is committed to achieving caribou conservation and recovery, where activities are well-managed and coordinated, supporting different land use activities and balanced outcomes in a working landscape. Recognizing that caribou represent one set of values, the integration of caribou range plans into Alberta's other Government of Alberta plans and frameworks (for example, regional plans and biodiversity management frameworks) will ensure Alberta addresses desired environmental, economic and social outcomes.

## 2.0 LITTLE SMOKY AND A LA PECHE CARIBOU RANGES OVERVIEW

The Little Smoky and A La Peche Caribou Ranges are located within the Foothills, Subalpine and Alpine Natural Regions, and Lower Foothills and Upper Foothills Sub-regions in west-central Alberta. Together, the ranges are 9,699 km<sup>2</sup> in size and while they share a common border, the Little Smoky and A La Peche caribou populations are different caribou ecotypes – the Little Smoky population are non-migratory boreal caribou while the A La Peche are migratory mountain caribou.

The distribution of woodland caribou in west-central Alberta has greatly declined over the last 50 to 80 years. The Little Smoky caribou population is the most southerly boreal population currently remaining in the province. The A La Peche caribou population is now the most southerly mountain caribou population remaining in Alberta on provincially controlled lands.

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<sup>1</sup> Equivalent to the nationally defined Southern Mountain woodland caribou (now subdivided into Southern and Central Mountain populations)

<sup>2</sup> Equivalent to the nationally defined Boreal woodland caribou

The Little Smoky and A La Peche Caribou Ranges are located in the Municipal District of Greenview No.16 and Yellowhead County and overlies significant forest and energy resources. Natural resource exploration and development in the area contribute to the economic and social stability of a wide network of west-central Alberta towns and communities.

There are three Aboriginal communities with consultation areas that overlap the Little Smoky and A La Peche Caribou Ranges: The Aseniwuche Winewak Nation of Canada, Sturgeon Lake Cree Nation, and Horse Lake First Nation. Sturgeon Lake Cree Nation and Horse Lake First Nation are both signatories to Treaty No.8. Caribou have been an important part of the traditional way of life of First Nations and Metis people in Alberta. In addition to reporting that caribou were an historical subsistence food source, aboriginal groups report that caribou have been an important source of raw materials.

### **3.0 LITTLE SMOKY AND A LA PECHE CARIBOU RANGE PLAN PURPOSE**

This Little Smoky and A La Peche Caribou Range Plan (the Range Plan) describes Alberta's actions towards meeting the caribou conservation and recovery goals and objectives outlined in Alberta's caribou recovery plan and policy, and the goals and objectives listed in the Government of Canada's woodland caribou recovery strategies. It identifies an approach to habitat and population management that sustains a working landscape where caribou and careful development co-exist.

Alberta recognizes that woodland caribou conservation and recovery will require time and commitment to both habitat and population management actions. We are committed to ongoing assessments and research to supporting these actions.

The Boreal and Southern Mountain Recovery Strategies identify critical habitat as dependent upon both biophysical habitat attributes and undisturbed habitat. The strategies guide the effective protection of critical habitat and specify the need to achieve and maintain a minimum of 65% undisturbed area within each range (Boreal) or the low elevation winter range (Southern Mountain) and provide the biophysical habitat attributes necessary for caribou recovery. This range plan establishes a habitat trajectory towards the 65% threshold for both ranges.

The Range Plan identifies definitions, indicators and targets that support measuring and reporting on progress towards the requirements of the Recovery Strategies, while also providing the groundwork for a made-in-Alberta approach.

The federal *Species At Risk Act* establishes requirements for action plans, including specified protection of critical habitat. The Range Plan will form part of Alberta's action plan for boreal woodland caribou.

### **3.1 Alberta's approach**

Alberta's approach is a focused strategy towards achieving self-sustaining populations while supporting communities and the economy.

Caribou recovery in the Little Smoky and A La Peche Caribou Ranges depends on reducing predation rates so caribou populations can grow and then remain stable at increased population levels, and restoring and conserving sufficient suitable habitat to support self-sustaining populations. Current habitat conditions in the Little Smoky and A La Peche Caribou Ranges will not support self-sustaining caribou populations. Achieving sufficient future habitat will take many decades.

Caribou habitat will be managed through the reduction of forest harvesting, modifications to how oil and gas resources are managed, restoration of industrial features, protection from natural disturbances and coordinating industrial development to reduce footprint. Restoration of legacy seismic lines will begin immediately and new footprint will be minimized and mitigated. Our goal is to achieve a level of habitat that will enable self-sustaining caribou populations without the need for direct actions to reduce

predation.

To meet provincial and federal goals and objectives, while remaining responsive to dynamic caribou population and landscape conditions, Alberta will employ an adaptive management approach. Objectives and actions identified in the Range Plan will be monitored and reported.

Alberta will support ongoing monitoring, research and evaluation to improve our understanding of caribou populations, habitat, and restoration efficacy. Actions in the Range Plan will be reviewed annually, and based on the outcomes of those reviews, Alberta will revise management strategies and actions as necessary to enhance caribou recovery. The Range Plan will be updated every five years.

The Range Plan takes a three phase approach to achievement of self-sustaining caribou populations:

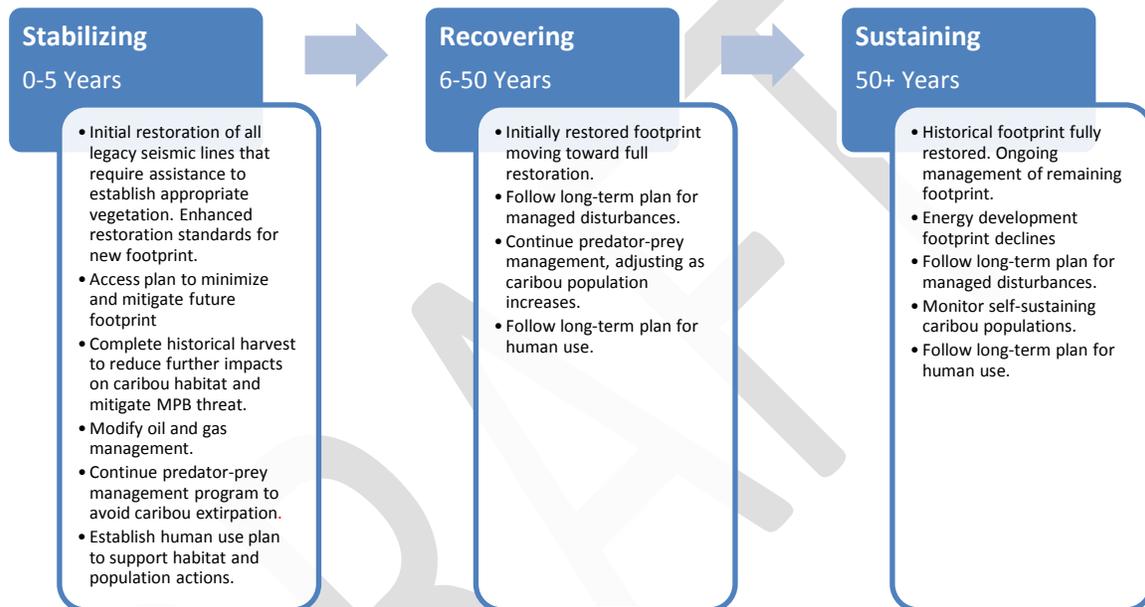


Figure 1: Alberta's phased approach to achieving self-sustaining populations.

## 3.2 Definitions

Alberta uses the following definitions in the Range Plan. They inform the management actions that follow, as well as monitoring and reporting activities.

### 3.2.1 Federal Recovery Strategies - definitions

The Range Plan adopts the following definitions from the federal Recovery Strategies.

#### *Self-Sustaining Local Population*

A local population of boreal caribou that on average demonstrates stable or positive population growth over the short-term ( $\leq 20$  years), and is large enough to withstand random events and persist over the long-term ( $\geq 50$  years), without the need for ongoing active management intervention.

#### *Disturbed Habitat*

Habitat showing: i) human-caused disturbance visible on Landsat at a scale of 1:50,000, including habitat within a 500 metre buffer of the human-caused disturbance; and/or ii) fire disturbance in the

last 40 years, as identified in data from each provincial jurisdiction (without buffer).

#### *Undisturbed Habitat*

Habitat not showing any: i) human-caused disturbance visible on Landsat at a scale of 1:50,000, including habitat within a 500 metre buffer of the human-caused disturbance; and/or ii) fire disturbance in the last 40 years, as identified in data from each provincial and territorial jurisdiction (without buffer).

### **3.2.2 Alberta's approach – definitions**

These definitions support Alberta's approach to range planning.

#### ***Habitat***

##### *Effective Habitat*

Habitat that has characteristics which provide caribou with all of their ecological needs (that is, food, shelter, ability to travel and disperse, ability to reproduce, and ability to avoid excessive levels of predation). Effective habitat is available and functioning at three scales – the local population range (sufficient for self-sustaining populations), the individual home range (providing for biophysical habitat needs) and individual foraging sites. Effective habitat has low risk of predation on caribou, caribou food availability, and low occurrence of food for wolves' main alternate prey: moose, elk and deer.

##### *Initially Restored Habitat*

Habitat that was disturbed in the past, but has since been put on a successional pathway towards providing effective caribou habitat, either naturally or through management actions. Forest cutblocks are required to be reforested by law; thus, they are considered immediately initially restored.

##### *Restored habitat*

Habitat that was disturbed in the past, but has since returned to a state that is beginning to contribute to effective habitat.

#### ***Development***

##### *Working landscape*

An area of land managed for multiple environmental, social and economic objectives. These objectives include environmental conservation, as well as continued human use for social and economic values.

##### *Footprint*

Footprint, for this Range Plan, is defined as the area of human disturbance features, exclusive of an influence buffer, until they achieve a status of 'restored habitat'. Overlapping features are only counted once.

##### *Historical footprint*

Footprint as of April 1, 2016<sup>3</sup>, deemed unnecessary to support continued human activity, is not initially restored and does not have a legally responsible party to deal with the restoration work (for

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<sup>3</sup> Alberta will continue to improve its inventory of historical footprint over time, adding it to historical footprint based on the date of its creation, relative to April 1, 2016.

example, historical seismic lines that have not been returned, either naturally or through management actions, to a successional pathway towards providing effective caribou habitat).

#### *Appended Development*

Development that occurs immediately adjacent to roads, pipelines, facilities and well pads that have not been initially restored.

## **4.0 HABITAT MANAGEMENT AND RESTORATION**

This section outlines the management actions that Alberta will take for caribou habitat in the Little Smoky and A La Peche Caribou Ranges, towards meeting Alberta’s caribou conservation and recovery goals.

### **4.1 Targets and Management Intent**

Alberta’s habitat targets and management intents are framed as a phased approach to achieving the amount and quality of effective habitat which will support self-sustaining Little Smoky and A La Peche caribou populations. Alberta’s immediate goal is to initiate the restoration of existing footprint and minimize/manage the creation of new footprint while sustaining social and economic values. This strategy puts the ranges on a habitat trajectory towards 65percent undisturbed habitat and enables wise management of biophysical habitat.

<b>Phase</b>	<b>Habitat target</b>	<b>Energy Management Intent</b>	<b>Forestry Management Intent</b>
<i>Stabilizing 0 – 5 years</i>	Restoration of all historical footprint. Minimize and mitigate new footprint to maintain habitat and develop future habitat, establishing a trajectory towards 65% undisturbed habitat and managing biophysical habitat attributes.	Minimize and mitigate new development.	Maintain and increase effective habitat. Complete historical harvesting to reduce further impacts to caribou and mitigate mountain pine beetle threat.
<i>Recovering 6 – 50 years</i>	Restoration sites on trajectory to effective habitat.	Manage new development to ensure the amount and type is appropriate to achieve caribou objectives.	Forest management to increase caribou habitat, and manage mountain pine beetle risk.
<i>Sustaining 50+ years</i>	Achieve sufficient effective habitat to support self-sustaining caribou populations.	Manage new development to ensure the amount and type is appropriate to achieve caribou objectives.	Habitat maintenance and sustainable development

### **4.2 Zonation**

Zones provide the basis for allocating management strategies to achieve measurable outcomes. The zones support the overall management approach to achieve the goals and objectives of this plan. Two zones are identified to direct management activity, one within the caribou ranges, and one surrounding and

encompassing the ranges (Figure 1).

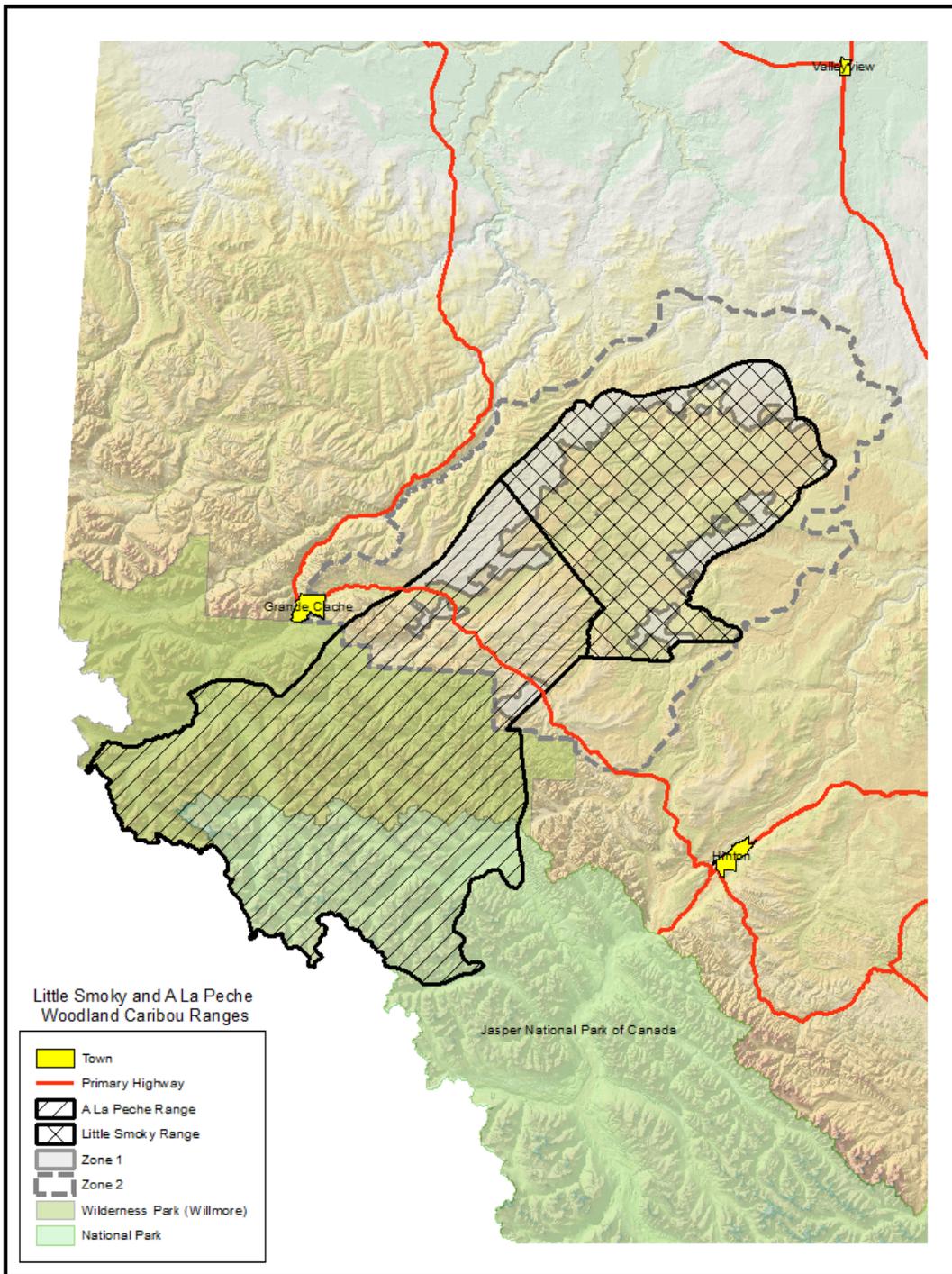


Figure 1. Management zones for the Little Smoky and A La Peche Caribou Ranges.

#### 4.2.1 Zone Definitions

##### *Zone 1*

Zone 1 was delineated based on the occurrence of existing forest harvesting footprint along with caribou occurrence and movements.

## **Zone 2**

This zone extends beyond the Little Smoky and A La Peche Caribou Ranges. It will be used to identify where coordinated access management practices are required, inclusive of the ranges. This zone coincides with the boundary used to develop the original Berland-Smoky Regional Access Development Plan.

### **4.3 Restoration**

Restoration of disturbed habitat towards conditions which are effective for caribou is a cornerstone of Alberta's approach to stabilizing and recovering caribou populations.

The goal of restoration is to re-establish forest communities on disturbed sites, thereby restoring normal ecosystem processes. Alberta's restoration program objectives are:

- Habitat restoration – Restore sites to their natural successional trajectory, in turn 1) reducing caribou avoidance of disturbance; 2) reducing establishment and growth of plant species preferred by alternate prey; and 3) over time, creating effective habitat for caribou.
- Reduce predation risk –Impede and reduce wolf travel on linear corridors, and reduce habitat features which support high numbers of wolves.

#### ***Restoration Management Requirements***

1. Alberta will lead the development and implementation of a restoration plan for historical and existing footprint in the ranges, to increase undisturbed and effective habitat and reduce predation rates on caribou. Implementation of this plan will initially restore historical seismic lines in the ranges by the end of 2022.
2. Industry operating in the area will be required to meet enhanced restoration requirements at the time of footprint abandonment, to be established by Alberta in communication with the Regulator, for any new footprint on or after April 1, 2017, within the caribou ranges.

### **4.4 Access Management**

Minimizing the creation of new footprint in a working landscape requires carefully considered development plans, operating conditions, and coordination of access to minimize new linear disturbances and identify opportunities to restore existing linear disturbances. Alberta's Range Plan will ensure alignment with caribou habitat and population objectives by the application of strict operating conditions, and a mandatory ILM approach through the approval of a coordinated regional access development plan.

#### ***Mandatory Integrated Land Management (ILM)***

ILM is a strategic, planned approach to manage and reduce human footprint on the landscape. ILM aims to balance values, benefits, risks and trade-offs when planning and managing resource extraction, land use activities, and environmental management. ILM in the Little Smoky and A La Peche Caribou Ranges is mandatory; industry operating within the Little Smoky and A La Peche Caribou Ranges will be expected to adhere to ILM requirements in applications for development and throughout their activity cycles.

## *Berland Smoky Regional Access Development Plan*

The Berland Smoky Regional Access Development (RAD) Plan was developed by the Foothills Landscape Management Forum (FLMF). The FLMF is a self-funded forum made up of resource companies (energy and forestry) and the Aseniwuche Winewak Nation who work together on the management of industrial footprint to mitigate the impact on other resource values. The RAD Plan included input from government, Indigenous communities and industry stakeholders to provide a coordinated approach to planning access roads in the region within and surrounding the Little Smoky and A La Peche Caribou Ranges. Alberta approved the RAD Plan's primary corridors. In consideration of potential implications for caribou and some other fish, wildlife and land management values, completion and approval of all aspects of the RAD Plan's secondary corridors plan was deferred until the completion of caribou range plans. Following the release of the Range Plan, the Government of Alberta will work with the FLMF to prepare a new regional access plan which considers all access types.

### **Access Management Requirements**

3. The Foothills Landscape Management Forum or a similar working group designated by Government will coordinate the preparation of a multi-company regional access plan for the forest and energy sectors in Zone 2, subject to oversight by the Government of Alberta, Indigenous peoples, environmental non-government organizations, municipalities and other key impacted stakeholders. Alberta Environment and Parks will lead the review and approval of this plan, including consultation with Indigenous peoples and downstream regulators.
4. Parties seeking to develop roads in the Little Smoky and A La Peche Caribou Ranges will be required to submit rolling 5-year operational access plans annually, demonstrating consistency with the approved regional access plan and provisions of the Range Plan. Road approvals and amendments for different sectors will be integrated, with oversight from Agriculture and Forestry and the Alberta Energy Regulator to ensure consistency with the approved regional access plan and rolling access plans.

## **4.5 Management of Forest Activity**

Forest products harvesting will be managed using zonation as shown in Figure 1, and in some areas volume limits.

Harvesting will focus on areas of pre-existing harvest first (Zone 1), taking advantage of existing access and disturbance to reduce further forest fragmentation and produce large contiguous areas of future caribou habitat. Annual harvesting plans will strive to concentrate activities geographically. Further, companies will ensure any carryover volume from previous years is harvested outside the ranges before proceeding to harvest inside the ranges.

Each company with tenure overlapping caribou ranges will update their respective Forest Management Plan to reflect direction in this range plan, ensuring that volume scheduled inside the ranges is identified as an annual schedule. Range volume may be carried forward from year to year, but may not exceed the volume cumulative to that year.

### **Forestry Requirements**

5. For any forest management unit, harvesting inside the ranges may only remove "second-pass"/ "reserve block" stands (that is, stands in Zone 1) until all of that area is removed.
6. Carryover volume must be harvested outside the ranges before proceeding to harvest inside the ranges. Harvesting plans will prioritize scheduling blocks that minimize increases to disturbed

habitat.

7. Harvesting in forest management unit W15 inside the ranges will not exceed the following levels annually:

2016/17: 548,500 m<sup>3</sup>

2017/18: 498,500 m<sup>3</sup>

2018/19: 498,500 m<sup>3</sup>

2019/20: 473,500 m<sup>3</sup>

2020/21: 448,500 m<sup>3</sup>

8. Harvesting in forest management unit E8 inside the ranges will not exceed 342,000 m<sup>3</sup> annually for the next 5 years.
9. Forest management plans will be updated to reflect the direction in this range plan by December 31, 2016, ensuring that volume scheduled inside the ranges is identified as an independent annual schedule.
10. Range harvest volumes may be carried forward from year to year, but may not exceed the volume cumulative to that year.
11. Alberta will introduce operational requirements for forestry activity to:
  - a. Require the reforestation of historical footprint adjacent to or within forest harvest cut blocks.
  - b. Require initial restoration of Class V forest roads within three years of construction.

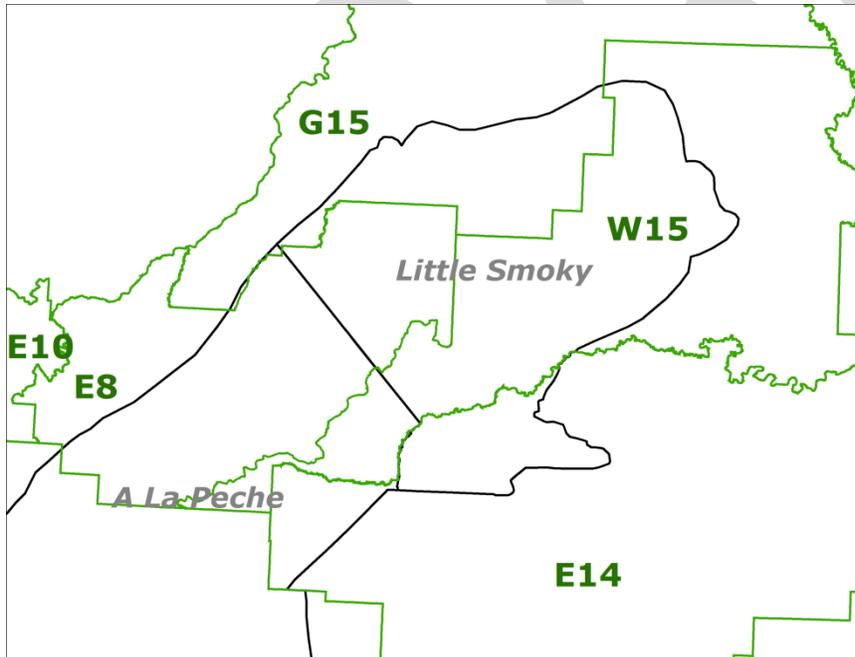


Figure 2. Little Smoky and A La Peche caribou ranges showing forest management unit names.

## 4.6 Management of Energy Activity

Alberta has various management provisions specific to caribou in place through its Enhanced Approval Process (EAP).

The current EAP provisions supporting caribou habitat and population protection will be reviewed and where necessary adjusted for consistency with the goals and objectives of the Range Plan.

### **Energy Requirements**

#### *Crown mineral rights*

12. The Government of Alberta will work with companies to achieve voluntary activity rescheduling and will offer agreement extensions on a case-by-case basis for companies to support transitioning to compliance with all provisions of the Range Plan. These extensions will be conditional on a signed commitment to a significant multi-year rescheduling of new development on the agreement companies identify, or a substantive and significant prolonging of activity over an extensive period of time.
13. The Government of Alberta will reserve from disposition all remaining Crown coal and metallic and industrial mineral rights within the Little Smoky and A La Peche Caribou Ranges. Petroleum and natural gas rights are available.

#### *Requirements for new and existing development*

14. All new oil and gas development adheres to appended development as a required approach. New development may be approved, provided there is a demonstrated inability to access resources from existing roads, pipelines, facilities and well pads; or it is identified in the approved multi-company regional access plan. Consideration will be given to human safety and best environmental outcomes in assessing the inability to access resources.
15. New disturbances should avoid open and treed wetlands throughout the ranges.
16. The Government of Alberta will review the current requirements in the Enhanced Approval Process (EAP), and approval conditions applied to existing applications, for consistency with the Range Plan goals and objectives. In the case of conflict between the Range Plan and any applicable portion of the EAP or other approval condition, the Range Plan prevails.

#### *Geophysical Exploration Requirements*

17. Applications for new seismic exploration must demonstrate to the Alberta Energy Regulator that reprocessing existing seismic data cannot be used in its place.
18. Where existing disturbances occur (i.e. clearings and cleared lines with vegetation heights less than 1 meter in height and within 200m of proposed seismic program line), the creation of new lines is prohibited, and the existing lines must be reused.
19. Where existing disturbances (as outlined in Standard 2) are not available, new clearings must adhere to the following standards:
  - a. Receiver lines must be meandering, under-canopy hand-cut and using tree avoidance techniques (that is, no trees with a diameter at breast height greater than 10 cm to be removed). Receiver lines must not be spaced closer than 200 meters apart.
  - b. Source lines must be meandering and may not exceed 2.75 meters in width and employ tree avoidance techniques to limit line of sight to less than 50 meters. Source lines must be at least 300 m from each other.

- c. Doglegs must be employed at all intersections with other linear features to limit line of sight.

20. Vehicles employed in seismic exploration will have a low ground pressure configuration.
21. Shrub and tree regeneration on existing lines must be protected through avoidance techniques.
22. Helipads must use natural open areas or existing clearings where available. If helipads are prepared, they must not exceed 35 meters in diameter.
23. Heli-portable programs must have shot hole drop zones no greater than 4 metres in diameter.
24. Initiate activity as early as possible in the winter to limit late winter activities. Seismic programs must be complete by February 15th of each year.

#### *Pipeline Construction Requirements*

25. Alberta will only approve pipeline construction that employs techniques to minimize the extent and duration of new footprint, through application of appropriate construction and restoration techniques. Alberta will develop requirements for approval of pipeline applications.

## **4.7 Other Sectors – Management Requirements**

### *Peat Extraction*

26. The Government of Alberta will reserve from disposition all peat within the Little Smoky and A La Peche Caribou Ranges.

### *Sand and Gravel Extraction*

27. The Government of Alberta will reserve from disposition all sand and gravel within the Little Smoky and A La Peche Caribou Ranges.
28. Borrow excavations will be permitted for approved activities.

## **4.8 Managing natural disturbance risks to habitat**

The majority of pine stands within the Ranges have been assessed as moderately susceptible to damage from attacking pine beetles; the risk of pine mortality is significant. Mountain pine beetle infestations and resulting impacts to pine forests damage hydrological function, ecosystem function, sensitive sites and wildlife habitat as well as sustainable forest harvest levels.

While only a small proportion of the ranges have burned over the last 60 years, wildfires are frequent natural and human-caused events in the Upper Athabasca and Upper Peace regions.

Alberta will focus its efforts in the Little Smoky and A La Peche Caribou Ranges to reduce the risk of habitat loss to these important natural disturbances.

### ***Natural Disturbance Requirements***

29. Alberta will continue with its high state of readiness for wildfire response and suppression in the Little Smoky and A La Peche Caribou Ranges.
30. Alberta will prioritize use of Level 1 (single-tree removal of high risk mountain pine beetle sites) control treatments in the Little Smoky and A La Peche Caribou Ranges, approving Level 2 (block or patch harvesting of infestations) treatments as necessary.
31. Alberta will review application of the Healthy Pine Strategy in the Little Smoky and A La Peche

## 5.0 HUMAN USE MANAGEMENT

Successful restoration depends on supporting tree regrowth on sites, and ensuring it is protected from subsequent disturbance. At the same time, management of alternate prey species for wolves (that is, moose, elk and deer) rests on the ability of Indigenous and licenced hunters to obtain access to the range.

Alberta will designate a Public Land Use Zone (PLUZ) to support habitat conservation, approving routes to support targeted access. A PLUZ is an area of public land to which legislative controls apply under authority of the *Public Lands Act*, to assist in the management of industrial, commercial and recreational land uses and resources. A PLUZ is created for a specific land base and the unique conditions that exist within that land base. PLUZ conditions are designed primarily to protect areas containing sensitive resources and manage conflicting land-use activities, including recreation.

### ***Management of Human Use - Requirements***

32. Alberta will designate a Public Land Use Zone encompassing the Little Smoky and A La Peche Caribou Ranges, including application of necessary barriers and enforcement. Motorized use will be restricted to approved roads and designated corridors through the use of a Public Land Use Zone, subject to constitutionally practiced treaty rights.
33. Alberta will coordinate the development of a recreational access component of the multi-company regional access plan and the restoration plan, to define designated routes in cooperation with affected Indigenous communities, municipalities, recreation and other users.
34. Awareness and educational programming will be enhanced through the Alberta Caribou Patrol to educate local communities, recreational associations (for example, the Off Highway Vehicle Association) about the impacts of recreational use on caribou.

## 6.0 POPULATION MANAGEMENT

### ***Targets***

Alberta's objectives for the Little Smoky and A La Peche caribou populations are framed as a phased approach towards achieving self-sustaining populations.

<b>Phase</b>	<b>Population target</b>
<i>Stabilizing</i>	Each range population has greater than 100 animals and demonstrates population stability or positive growth.
<i>Recovering</i>	Each range population has greater than 150 animals and demonstrates population stability, or positive growth (within the bounds of the ecological carrying capacity for caribou within each range).
<i>Sustaining</i>	Achievement and maintenance of a self-sustaining local caribou population in each of the Little Smoky and A La Peche ranges.

Recovery of habitat to levels that can sustain caribou will take many decades. During the Stabilizing and Recovering phases caribou populations require assistance to withstand excessive predation pressures. To improve survival rates, a large-scale caribou rearing facility will be used to augment the reproduction success of the Little Smoky population, with ongoing predator management for both caribou populations.

## 6.1 Caribou Rearing Facility

Alberta will construct a large (up to approximately 100 km<sup>2</sup>) fenced caribou rearing facility, to contain a suitable breeding population of caribou within the Little Smoky range. Periodically, young adult caribou will be released to the caribou population outside of the facility to contribute to population growth. The approach provides several potential benefits:

- Year-round protection for adult and young caribou from predation;
- Infrequent removal of predators from within the fenced area;
- Relatively large area protection, so caribou should require minimal supplemental feeding;
- Animals released as young adults should have reduced predation mortality rates; and
- The size and location of the facility will assist in it not contributing to negative impacts for the main caribou population remaining outside of the fenced area.

This approach is not suitable for the migratory A La Peche population.

## 6.2 Alternate Prey Management

Alberta will continue to manage ungulate harvest levels to: 1) address increases in the productivity of moose, deer and elk which result from wolf population reductions, and 2) to reduce apparent competition between caribou and other prey species. These goals will be achieved through a combination of ungulate harvest by Indigenous peoples, and general and special hunting licence opportunities.

## 6.3 Predator Management

Wolf management in relation to Alberta's threatened woodland caribou is enabled by Alberta's Woodland Caribou Recovery Plan, Woodland Caribou Policy for Alberta, and the Management Plan for Wolves in Alberta. Wolf populations are abundant and widely distributed across provincial forested lands.

The Government of Alberta will continue its existing wolf population management program in and adjacent to the Little Smoky and A La Peche Caribou Ranges. Alberta will engage local Indigenous communities in dialogue on traditional knowledge supports, and opportunities for communities to support predator management efforts.

Alberta's goal for wolf management will be to annually reduce and maintain wolf populations to levels which enable caribou population persistence, by achieving population stability or growth.

### ***Population management requirements***

35. Alberta will establish and fence a caribou rearing facility up to approximately 100 km<sup>2</sup> in size, to contain a suitable caribou breeding population, in the Little Smoky range.
36. Alberta will maintain conditions within the rearing facility necessary to the successful reproduction of the contained breeding population.
37. Alberta will continue setting harvest targets for moose, deer and elk in the Little Smoky and A La Peche Caribou Ranges that address the productivity increases of those species resulting from wolf population reductions, and to reduce apparent competition with caribou.
38. Conduct annual wolf population reductions within and adjacent to the Little Smoky and A La Peche caribou ranges to enable caribou population persistence, by achieving caribou population

stability or growth.

39. In consultation with local Indigenous communities, Alberta will identify opportunities for their peoples to contribute to caribou population management.

## 7.0 MONITORING AND REPORTING

As a key element of an adaptive management approach, the Government of Alberta will issue annual progress reports and five year stewardship reports for the Little Smoky and A La Peche Caribou Ranges. Alberta Environment and Parks will be accountable for Range Plan reporting, in collaboration with Alberta Agriculture and Forestry, Alberta Energy, the Alberta Energy Regulator, and other relevant departments and agencies. Annual reports will be prepared in association with a Caribou Range Management Advisory Committee, to be established by Alberta Environment and Parks.

Alberta will engage Indigenous peoples regarding opportunities for them to support and contribute to monitoring actions.

### 7.1 Population monitoring

Alberta will continue to monitor caribou in the Little Smoky and A La Peche Caribou Ranges.

Value	Indicator	Description
<b>Caribou populations</b>	Population size	Estimates every 5 years
	Population demographic rates and growth (lambda)	Annual estimates
<b>Caribou predation</b>	Moose (alternate prey) population size	Estimates every 5 years
	Annual wolf removals	Annual numbers removed

### 7.2 Habitat condition monitoring

Habitat will be monitored based on the Range Plan habitat definitions, and reported in annual and 5 year stewardship reports. The following indicators will be monitored by Alberta.

**Table 1. Indicators associated with habitat condition and restoration activity that will be monitored and reported by Alberta.**

Value	Indicator	Description
<b>Landscape condition</b>	Footprint	The area of anthropogenic disturbance features, classified by originating activity
	Footprint available for restoration	The area of anthropogenic disturbance features, classified by originating activity, eligible for restoration
	Natural disturbance	The area of disturbed and undisturbed habitat affected by natural disturbance (for example, wildfire, MPB, blowdown,

		etc.)
	Linear feature density	The length of linear features <sup>4</sup> per unit area, expressed for each range
<b>Caribou habitat</b>	Disturbed/undisturbed habitat	Per the Range Plan definitions, in absolute and proportional quantities
	Effective habitat	Per the Range Plan definitions, in absolutely and proportional quantities
<b>Trajectory to 65% undisturbed habitat</b>	Restoration activity	The area where footprint and historical footprint have been initially restored, by activity type
	Initially restored habitat	The area of restoration activity meets Government of Alberta requirements.
	Restored habitat	The area of restored habitat

## Monitoring and Reporting Actions

### *Alberta Monitoring Requirements*

40. Alberta will monitor habitat and population indicators as identified within section 7.0 of this range plan.
41. Alberta will engage Indigenous communities regarding opportunities for them to contribute to monitoring actions.

### *Industry Monitoring Requirements*

42. Industrial land users operating in the Little Smoky and A La Peche Caribou Ranges shall report an accurate representation (“as-built”) of additions or modifications to footprint annually, to Alberta Environment and Parks; the department will define acceptable standards for submitted data.
43. In association with Alberta Environment and Parks, a Caribou Range Management Advisory Committee will prepare annual public reports by March 31 of each year assessing:
  - a. the establishment and success of the seismic restoration program and caribou rearing facility
  - b. monitoring data collected annually by Alberta, as identified in requirement 36.
46. Alberta, led by Alberta Environment and Parks, will prepare five year stewardship reports for the Little Smoky and A La Peche Caribou Ranges.

## 8.0 RESEARCH – ONGOING AND FUTURE

Alberta is committed to ongoing assessments, monitoring and research to support adaptive management of the Range Plan and to inform defining habitat indicators and targets. Alberta will identify priority areas of research that support caribou population and habitat objectives. Alberta will collaborate with suitable researchers and agencies to deliver research priorities.

<sup>4</sup> Features established to connect two points, that is, seismic lines, roads, trails, transmission corridors, railways, pipelines, easements, etc. Low impact seismic is not included in linear feature density calculations.

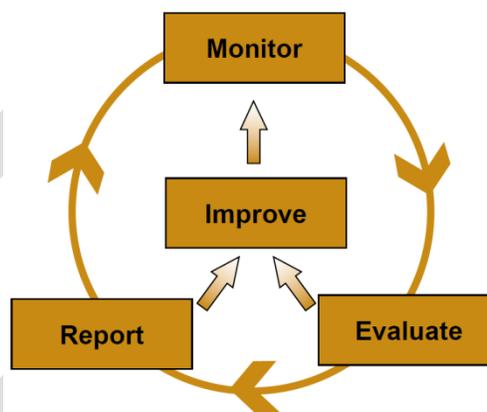
Alberta Environment and Parks, in association with a Caribou Range Management Advisory Committee to be established by Alberta Environment and Parks, will review and assess new research findings as they relate to delivery and potential adjustments to the Range Plan .

## 9.0 TIMELINES: RANGE PLAN UPDATES

### 9.1 Continuous Improvement

Alberta is committed to achieving positive environmental, economic and social outcomes for the benefit of current and future generations of Albertans. The principle of adaptive management incorporated in the Range Plan ensures that we will respond to changes in our understanding of those values over time, continuously improving our approach.

The occurrence of natural or unexpected disturbances (for example, wildfire) within the Little Smoky and A La Peche Caribou Ranges could threaten the achievement of expected outcomes. In the event that a natural disturbance affects more than 5% of the area of either range, more than one year before a regular plan update evaluation, the Government of Alberta will provide a management response in collaboration with key stakeholders, Indigenous people, amending the Range Plan as necessary.



Alberta's climate has been changing. Alberta has experienced the largest increase in mean annual temperature, approximately 1.4 degrees Celsius, of all Canadian provinces over the last 100 years. Caribou are among the most vulnerable boreal species to climate change. More moderate winter temperatures have allowed MPB to survive farther north and at higher elevations. Alberta will carefully evaluate continued changes in climate, identifying and addressing challenges to caribou populations, and investigating adaptation approaches as necessary.

If the management actions outlined in the Little Smoky and A La Peche Caribou Range Plan are not meeting intended targets or caribou populations continue to be challenged by excessive predation, Alberta will employ its adaptive management approach. Changes contemplated to the management actions outlined in the plan will be done in collaboration with key stakeholders and Indigenous people.

#### ***Adaptive Management Actions***

47. Alberta will review and update the Little Smoky and A La Peche Caribou Range Plan, including all management actions and activity levels, at least every five years from its approval.
48. The Caribou Range Management Advisory Committee will review and assess annual monitoring data and new research, providing annual advice to government on the need for adjustments of the Little Smoky and A La Peche Caribou Range Plan.
49. If natural disturbance affects more than 5% of the area of either range, more than one year before a regular plan update, Alberta will provide a management response.