

**Government of Alberta ■**

**Action Plan  
for  
West-Central Alberta Caribou Recovery**

**Alberta Sustainable Resource Development  
May 2009**

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*Executive Summary*

*Alberta Sustainable Resource Development (Department) completed its review of the Alberta Caribou Committee Recommendations for a West-Central Alberta Caribou Landscape Plan.*

*The Department acknowledges the useful and diligent work of the Alberta Caribou Committee Governance Board (ACC), and the West-Central Caribou Planning Team (WCCLPT). The source documents, The West-Central Alberta Caribou Landscape Plan May 6, 2009 (WCCLPT-Plan) and the Recommendations for a West-Central Alberta Caribou Landscape Plan July 10, 2008 (ACC-Recommendations) were used to establish feasible caribou recovery strategies for West-Central Alberta.*

*The Action Plan includes:*

- *Implementing the intactness zone concept;*
- *Managing anthropogenic disturbance (footprint);*
- *Implementing population monitoring programs for caribou, wolves, and alternate prey;*
- *Reducing alternate prey populations in caribou ranges;*
- *Reducing wolf populations in caribou ranges; and*
- *Employing adaptive management principles for caribou recovery.*

*The Department believes that success in caribou recovery will require the integrated implementation of all Action Plan strategies. Some ACC-Recommendations require other Ministries to change legislation or policy (e.g. mineral lease sales). Such changes are beyond the Department mandate. Policy change is an important component to be addressed through other Government of Alberta processes such as the Land-Use Framework (LUF).*

*The Action Plan supports broad GOA objectives and delivers the Department mandate of sustainable resource development by enabling, not restricting, access to resources, and honouring existing dispositions and allocations. This, however, does not imply business as usual. Industrial development shall occur in a manner that supports habitat maintenance and caribou herd recovery. The expectation for maintaining caribou habitat and populations is high and of key importance.*

*The National Boreal Caribou Recovery Strategy will bring added scrutiny to Alberta's approach, however, the Department believes implementing the Action Plan designed to maintain caribou populations, will be consistent with National objectives. In addition, Land-Use Framework regional plans may provide direction requiring Action Plan revisions.*

**Action Plan  
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May 2009**

**1. Introduction**

Alberta Sustainable Resource Development (Department) completed its review of the *Alberta Caribou Committee Recommendations for a West-Central Alberta Caribou Landscape Plan*.

The Department acknowledges the useful and diligent work of the Alberta Caribou Committee Governance Board (ACC), and the West-Central Caribou Planning Team (WCCLPT). The source documents, *The West-Central Alberta Caribou Landscape Plan May 6, 2009* (WCCLPT-Plan) and the *Recommendations for a West-Central Alberta Caribou Landscape Plan July 10, 2008* (ACC-Recommendations) were used to establish feasible caribou recovery strategies for West-Central Alberta.

- 1.1. The Department has aligned its discussion and Action Plan with the above-noted documents. Moving forward with specific management strategies shown to be effective at achieving desired outcomes will facilitate caribou herd recovery while providing continued opportunity for resource development. The Action Plan includes;
- 1.1.1. Implementing the intactness zone concept;
  - 1.1.2. Managing the industrial footprint<sup>1</sup>;
  - 1.1.3. Implementing population monitoring programs for caribou, wolves, and alternate prey<sup>2</sup>;
  - 1.1.4. Reducing alternate prey populations in caribou ranges;
  - 1.1.5. Reducing wolf populations in caribou ranges; and
  - 1.1.6. Employing adaptive management principles for caribou recovery.

The Department recognizes there may be incremental costs to enhanced planning and implementation requirements associated with this plan. It is acknowledged that industries currently report significant investments in activities regarding caribou. Similarly, the Department will have additional costs for planning, and implementation of management programs. (e.g. bonus bids for subsurface dispositions may be reduced, long-term public support for wolf control programs is questionable).

The Action Plan addresses, in whole or in part, the majority of the ACC-Recommendations. The Department believes that success in caribou recovery will require the integrated implementation of all Action Plan strategies. Some ACC-Recommendations require other Ministries to change legislation or policy (e.g. mineral lease sales). Such changes are beyond the purview of the Department, and outside the Department mandate. Policy and regulatory change are important

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<sup>1</sup> anthropogenic disturbance

<sup>2</sup> Moose, deer and elk.

components to be addressed through other Government of Alberta processes such as the Land-Use Framework (LUF).

## **2. Background**

The ACC was established in 2005 by the Deputy Minister of Sustainable Resource Development in response to recommendations of the Alberta Woodland Caribou Recovery Plan and by the Boreal Caribou Committee. With this the ACC became the sole collective group advising the Minister on caribou conservation and recovery, replacing the pre-existing Boreal Caribou Committee, West-Central Caribou Committee and Alberta Woodland Caribou Recovery Team. The goal of the ACC is to maintain and recover boreal caribou herds in Alberta's forest ecosystem while providing opportunities for resource development<sup>3</sup>.

The ACC was mandated to create five caribou landscape teams to develop recommendations for caribou herd recovery in five geographic landscapes. The first team to be established was the WCCLPT; a multi-stakeholder team of industry, environmental non-government organizations (ENGO), and government representatives. The WCCLPT started developing recommendations for the four West-Central herds (Little Smoky, Al la Peche, Narraway, Red Rock-Prairie Creek) in March 2006. At the same time other industrial groups were active in access management planning and consulted with the WCCLPT (i.e. Kakwa-Copton planning team, Weyerhaeuser, Caribou Landscape Management Association).

The WCCLPT submitted its recommendations to the ACC in May 2008. The ACC reviewed the recommendations and subsequently submitted its recommendations to the Deputy Minister in respect of the West-Central herds in July 2008.

## **3. Sustainable Resource Development**

The goal of the Alberta Caribou Committee is to *maintain and recover woodland caribou in Alberta's forest ecosystems while providing opportunities for resource development*<sup>4</sup>. This is consistent with the Department's mission to encourage balanced and responsible use of Alberta's natural resources. The Action Plan supports broad GOA objectives and delivers the Department mandate of sustainable resource development by enabling, not restricting, access to resources, and honouring existing dispositions and allocations. This, however, does not imply business as usual. Industrial development shall occur in a manner that supports habitat maintenance and caribou herd recovery. The expectation for maintaining caribou habitat and populations is high and of key importance.

Related initiatives include the expected 2009 release of Canada's *National Boreal Caribou Recovery Strategy* and the recently released *Alberta Land-Use Framework*. The *National Boreal Caribou Recovery Strategy* will bring added scrutiny to Alberta's approach, however, the Department believes implementing the Action Plan designed to maintain caribou populations, will

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<sup>3</sup> Alberta Caribou Committee Terms of Reference, November 2, 2005, Page 1

<sup>4</sup> Ibid

be consistent with National objectives. In addition Land-Use Framework regional plans may provide direction requiring Action Plan revisions.

#### **4. Management Effort**

In both the WCCLPT and ACC considerable debate occurred on whether managers should attempt to recover all herds, or focus on those herds where management has the greatest likelihood of success.

The Department believes it necessary to apply appropriate management effort to each caribou herd in West-Central Alberta. This is consistent with the *Alberta Woodland Caribou Recovery Plan 2004/05 – 2013/14*; “...recovery of woodland caribou in Alberta is feasible from a biological and technical standpoint”<sup>5</sup>.

The West-Central herds are all affected by the same pressures. The emphasis for management and recovery will vary by herd and location as will the tactics employed<sup>6</sup>.

#### **5. Management Strategies**

The goal of the Alberta Caribou Recovery Plan is “To achieve self-sustaining woodland caribou herds and maintain the distribution of caribou in Alberta<sup>7</sup>”. The Department supports this goal and will implement the following management strategies to make progress toward caribou recovery. Each strategy aligns with the recommendations of the ACC and WCCLPT. The Department believes sustaining healthy habitats, herds, and forest landscapes requires planned, sophisticated, cost-effective, and on-going (periodic) management interventions. This principle underlies the direction in this Action Plan.

##### **5.1 Habitat Intactness**

The Department agrees with the concept of “habitat intactness” and accept its application to define priority habitat zones for caribou management and recovery. The following actions are recommended to implement this strategy.

5.1.1 Adopt initially, but not permanently<sup>8</sup>, the high, medium and low intactness zones for the Little Smoky and Al La Peche ranges. Note: The caribou management area described in Weyerhaeuser’s Forest Management Plan for the Narraway and Red Rock herds are included for information<sup>9</sup>.

5.1.2 By January 1, 2010, complete a review of the intactness zones, in consultation with key stakeholders to:

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<sup>5</sup> Alberta Caribou Recovery Plan 2004/05 – 2013/14, July 2005, Page viii – Executive Summary

<sup>6</sup> A herd-specific summary of management tactics for immediate implementation is presented in Appendix A.

<sup>7</sup> Alberta Caribou Recovery Plan 2004/05 – 2013/14, July 2005, Page 11 – recovery Goals and Objectives

<sup>8</sup> Refer to map, Appendix B

<sup>9</sup> Refer to map, Appendix C

- 5.1.2.1 Standardize the process used to define intactness zones;
- 5.1.2.2 Decide what changes are necessary to the current intactness zones; and
- 5.1.2.3 Where changes to intactness zones are made, any additions shall be brought into alignment with the caribou management strategies of this plan.
- 5.1.3 Align and coordinate caribou and grizzly bear management strategies where caribou range boundaries overlap core and/or secondary grizzly bear habitat.
- 5.1.4 Use information currently available to define the process for delineating habitat intactness zones in caribou ranges.
- 5.1.5 Complete a Department review of the Mountain Pine Beetle control and Healthy Pine strategies to evaluate the implications of these on caribou population and habitat goals.
- 5.1.6 Continue to address current forest protection priorities<sup>10</sup>.

The concept of habitat intactness was universally endorsed by industry, ENGOs, and staff during the development of the recovery plan. However, the details necessary for describing intactness, determining boundaries, and managing intactness across time generated lengthy and exhaustive debate. The review proposed (5.1.2) is to ensure best possible solutions are selected.

Accompanying habitat intactness is uncertainty and risk. Forests are dynamic systems of organisms that reproduce, grow and die. They are subject to unpredictable natural disturbances (e.g. forest fires, drought, insect infestations, diseases, and climatic conditions). Therefore, relying on the assumption that intactness zones, once defined, will remain undisturbed for extended periods of time has inherent risks. Establishing intactness zones and understanding the potential risk for change is critical. The Department recognizes the risks and therefore strongly emphasize the need for monitoring and adaptation.

## 5.2 Growing Intactness Zones

The idea of “growing” (expanding) intactness zones is complicated issue to implement. The current intactness zones are not pristine wilderness areas devoid of human disturbance. They simply represent the best habitat conditions that remain on a very busy landscape.

- 5.2.1 In planning intactness zones, two approaches can be applied:
  - 5.2.1.1 Define areas of relative intactness and work to maintain and/or expand them; and
  - 5.2.1.2 “Grow” intactness zones within the caribou ranges where they currently do not exist. For this areas with the best future potential for being intactness zones will be selected.

Both approaches have implications for caribou habitat maintenance, and land-use management. They are not mutually exclusive and both should be considered during planning.

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<sup>10</sup> 1) Human Life, 2) Communities, 3) Watersheds and Soils, 4) Natural Resources, 5) Infrastructure

- 5.2.2 Current planning and regulatory processes (i.e. Forest Management Plans, Information Letters, Area Operating Agreements) shall be used to select the best possible strategies to maintain or expand suitable caribou habitat within the ranges.

### **5.3 Regional Wood Basket<sup>11</sup>**

The concept of a regional wood basket has been proposed by the forest industry and discussed. To be successful an acceptable business model must be developed; requiring motivation and commitment of the forest industry. The Department will not lead the process, but encourage industries' examinations of such alternatives to the current business model.

## **6. Footprint Management**

Research demonstrates that increased footprint and negative impacts on caribou populations are correlated. Consistent with the Department Integrated Land Management program, the Department concurs that minimizing the footprint to the greatest extent possible is desirable. The following actions are recommended to implement this strategy:

- 6.1 By May 1, 2009 the Department shall appoint a steering committee of senior staff to work with stakeholders (i.e. the Foothills Landscape Management Forum) to complete Regional Access Development Plans (RADP).
- 6.2 The scope of RADPs includes roads, pipelines, transmission lines, aggregated wellsites, and restoration of existing disturbances to meet caribou habitat and population targets. Implementing this strategy requires longer term planning by the energy sector and a regulatory decision making process that enables effective implementation at a landscape scale.
- 6.3 For the purposes of the RADP, the planning area shall be defined in the Terms-of-Reference. The initial focus shall be the A La Peche and Little Smoky ranges. Subsequently, a similar planning process shall be applied to the Red Rock and Narraway areas. Where intactness zones are revised subsequent to the review (5.1.2), the RADPs shall be revised.

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<sup>11</sup> Recommendations Addressed: The habitat intactness strategy described above addresses, in whole or in part, the following recommendations; 1a), 1b) ii) of the ACC-Recommendations; 9 and 11 of the WCCLPT-Plan.



## 7. **Footprint and Habitat Targets**

Initial footprint and habitat targets are set as follows:

- 7.1 Reduce by 15% the existing percentage of caribou range located within 250m of footprint features.
- 7.2 Manage road and linear disturbances to meet the open road density target adopted for grizzly bear management; i.e. open road density shall be kept within +/- 10% of current values.
- 7.3 Complete twenty-year forecasts of the above-noted metrics, and significant progress toward achieving these targets shall be made in the first 5 years. The management emphasis is to maintain high value habitat within intactness zones.
- 7.4 Mitigation tactics shall be reviewed and evaluated in RADPs.
  - 7.4.1 Rescind mitigation tactics determined marginally beneficial for mitigating negative impacts to caribou from Department requirements. Encourage others determined to have significant benefit, or mandated at the discretion of the Department.
  - 7.4.2 Restrict geophysical exploration to low-impact seismic (LIS) and timber avoidance practises. Current local requirements for heli-portable operations will remain.
  - 7.4.3 Encourage aggregation of wellsites where feasible, and where this practise reduces footprint<sup>12</sup>.
  - 7.4.4 Direct RADPs to assess the utility of implementing these tactics<sup>13</sup>.
- 7.5 Request RADPs to provide sound advice on feasible and effective access management practices.

## 8. **Net-positive Balance**<sup>14</sup>

The Department understands this term to be synonymous with “*no-net loss*”. The question of no-net loss (net-positive balance) was debated at length and with emotion, in developing the WCCLPT-Plan and ACC-Recommendations. Attaining absolute area reductions in footprint may require a prohibition of new development. Such action is not the Department mandate, however, aggressive restoration of the existing footprint may yield reductions in the total footprint area.

The Foothills Landscape Management Forum (FLMF) of the Foothills Research Institute is conducting research that examines the potential for footprint restoration. The Department encourages this work as the project will provide information on the efficacy of, and potential for, implementing restoration strategies. The conclusions drawn from this project may be used in

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<sup>12</sup> Aggregated sites are larger than single dispositions and generally persist on the landscape for longer periods of time. This may not be appropriate for all situations.

<sup>13</sup> Preliminary targets selected by the Department

<sup>14</sup> **Recommendations Addressed:** The industrial footprint strategy described above addresses, in whole or in part, the following recommendations; 1b) i), 1b) iii) 3a) 3b) and implementation recommendations 2a) and 2c) of the ACC-Recommendations; 6, 7, 10, 11, 14, 15, and 16 of the WCCLPT-Plan.

RADPs to ensure the most current and efficient practises are used to minimize footprint within intactness zones.

## **9. Wildlife Population Monitoring**<sup>15</sup>

Monitoring each population of the four West-Central caribou herds is critical for assessing their status<sup>16</sup>. In addition, in support of the strategies to reduce alternate prey and wolf populations, monitoring these species is required to determine the efficacy of the strategies implemented. The following Department actions are recommended:

- 9.1 Continue to monitor the four West-Central caribou herds. The monitoring design shall be reviewed periodically and adjusted as necessary. Caribou monitoring shall be conducted using state-of-the-art Geographic Positioning System collars to continue acquiring data on population dynamics and habitat use.
- 9.2 Monitor wolf populations in the West-Central Ranges to measure progress toward achieving the wolf density target<sup>17</sup>.
- 9.3 Monitor moose, deer and elk populations in the West-Central Ranges to measure progress toward achieving the alternate prey targets<sup>18</sup>.

## **10. Alternate Prey Population Management**<sup>19</sup>

The WCCLPT and ACC indicate that high populations of alternate prey support high populations of wolves resulting in high rates of caribou predation and ultimately caribou population decline. Therefore, reducing alternate prey populations to reduce the hunting success and availability of the food source of wolves is required. The following are recommended to be implemented.

Apply management tactics within caribou zones to maintain:

- 10.1 Moose population densities less than 100 animals per 1000 km<sup>2</sup> where whitetail deer are not present; and
- 10.2 Moose population densities less than 50 animals per 1000 km<sup>2</sup> where whitetail deer are present.
- 10.3 Maintain white-tail deer populations as low as reasonably possible. A target population level has not been established at this time, and given the prolific nature of the species, such a target may not be practical.

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<sup>15</sup> Recommendations Addressed: The population monitoring areas strategy described above addresses, in whole or in part, the following recommendations; implementation recommendation 1d) of the ACC-Recommendations; 9 and 10 of the WCCLPT-Plan.

<sup>16</sup> Declining, increasing, or stable.

<sup>17</sup> Refer to 5.5. Wolf Population Management.

<sup>18</sup> Refer to 5.4. Alternate prey Population Management.

<sup>19</sup> Recommendations Addressed: The alternate prey population management strategy described above addresses, in whole or in part, the following recommendations; 2a), 2b), 2c) and implementation 2b) of the ACC-Recommendations; 2, and 11 of the WCCLPT-Plan

- 10.4 Use hunter harvest strategies as the primary management tool to encourage harvesting to meet targeted levels.
- 10.5 Reduce alternate prey populations only within caribou ranges.

## **11. Wolf Population Management**<sup>20</sup>

The WCCLPT -Plan and ACC-Recommendations identify wolf predation as the limiting factor to caribou recovery. The Department believes it is imperative to continue managing wolf populations in the short term. The following are recommended to be implemented:

- 11.1 Apply wolf management tactics as required to achieve the target population density of 2 to 6 wolves per 1000 km<sup>2</sup> within each caribou range. Studies indicate wolf densities exceeding this density lead to caribou population declines.
- 11.2 Continue to support new and on-going research into the efficacy of wolf population control, and control methods<sup>21</sup>.
- 11.3 Focus wolf population management tactics on wolves that directly impact caribou herds. Wolf population control has been very effective to date. The Department has successfully implemented its Predator Control Plan in the Little Smoky area achieving approximate caribou population stability. It is recommended the Department extend similar tactics to other ranges as the need is identified by monitoring programs. Wolf populations will remain present, but at lower densities, in all caribou ranges.

## **12. Adaptive Management**<sup>22</sup>

A successful management program that sustains caribou populations requires implementing effective strategies that produce desired outcomes. Fundamental therefore, is to monitor key performance indicators and adjust tactics and strategies where monitoring indicates desired results are not being achieved.

A key performance indicator for West-Central herds is caribou population change; where stable or increasing population is the desired outcome. Adaptive management is essential to successful caribou herd recovery. Therefore, plans to be developed and the direction presented in this document are not final, but starting points to be modified and improved as new information becomes available.

Adaptive management can complicate the allocation of resources to recovery programs. The results of monitoring can indicate that additional, or more intensive (and costly) management is necessary. Alternately, monitoring can indicate that reductions to management activities are

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<sup>20</sup> Recommendations Addressed: The wolf population management strategy described above addresses, in whole or in part, the following recommendations; 2a), 2b), 2c), and implementation recommendation 2b) of the ACC-Recommendations; 1 and 11 of the WCCLPT-Plan

<sup>21</sup> The Department currently supports the Hebblewhite project.

<sup>22</sup> Recommendations Addressed: The adaptive management strategy described above addresses, in whole or in part, the following recommendations; implementation recommendation 1 of the ACC-Recommendations; 9 of the WCCLPT-Plan

possible. There are also time-lags between implementation and management actions, and the assessment of monitored outcomes. The Department recognizes this reality and therefore encourages flexibility.

*Table 1: Population Specific Implementation Framework*

<b>Population</b>	<b>Current Status</b>	<b>Target to be Achieved</b>	<b>Implementation Strategies</b>
Little Smoky (boreal woodland caribou)	Population was in rapid decline for many years. Has been generally stable for last two years as a result of wolf control program delivery. Moose, elk and deer management programs are also currently in effect.	Achieve population growth to effect a population increase. Ensure long-term habitat requirements are met.	1) Deliver an enhanced wolf management program. 2) Maintain current moose, elk and deer management programs. 3) Initiate integrated industry access plans. 4) Implement habitat intactness strategy
Red Rock - Prairie Creek (mountain woodland caribou)	Population is in decline. Moose, elk and deer management programs are in place for a portion of the caribou range area (i.e. in Wildlife Management Unit 355).	Achieve a self-sustaining population. Ensure long-term habitat requirements are met.	1) Initiate a wolf management program. 2) Maintain current moose, elk and deer management program in Wildlife Management Unit 355. 3) Initiate integrated industry access plans. 4) Implement habitat intactness strategy.
A La Peche (mountain woodland caribou)	Population in decline during 2007/08. Since 1996, a significant proportion of the population has abandoned traditional wintering area in the foothills (i.e. range recession); this winter range continues to be used by part of the population. Predator and moose, elk, deer management programs are in place for a portion of the traditional foothills winter range (part of the Little Smoky program).	Achieve a self-sustaining population. Ensure long-term habitat requirements are met.	1) Evaluate potential need for expanded wolf management program. 2) Maintain current moose, elk and deer management programs on portions of the foothills winter range. 3) Initiate integrated industry access plans. 4) Implement habitat intactness strategy.

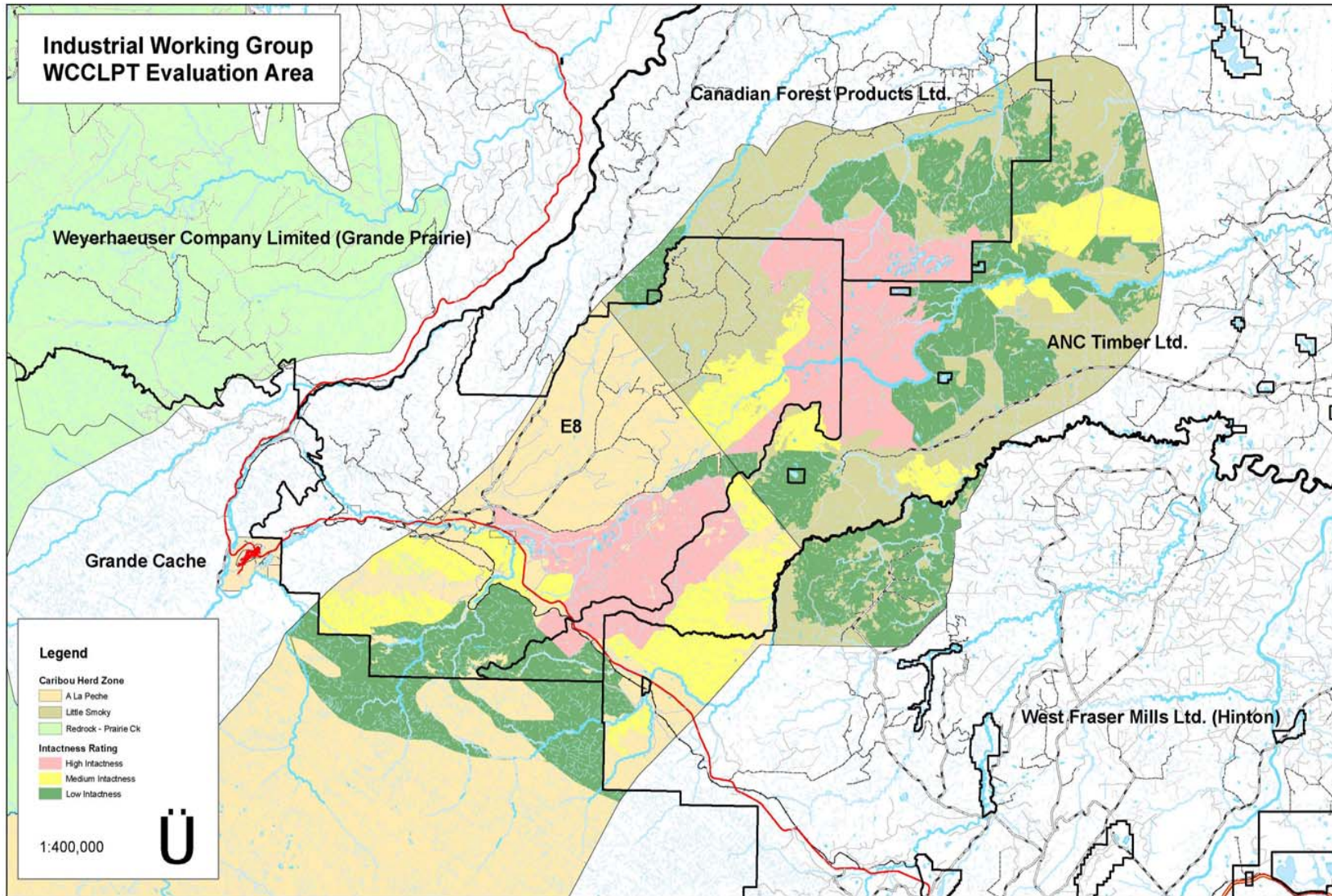
*Continued...*

<b>Population</b>	<b>Current Status</b>	<b>Target to be Achieved</b>	<b>Implementation Strategies</b>
Narraway (mountain woodland caribou)	Status has not been confirmed; first year of population trend data collection indicates population is in decline.	Achieve or maintain a self-sustaining population (in concert with BC, and pending more population status data) Ensure long-term habitat requirements are met.	<ol style="list-style-type: none"> <li>1) Initiate high-level discussions with province of British Columbia on all aspects of Landscape Plan implementation.</li> <li>2) Evaluate potential need for future wolf management program.</li> <li>3) Evaluate potential need for future moose, elk and deer management programs.</li> <li>4) Initiate integrated industry access plans.</li> <li>5) Implement habitat intactness strategy.</li> </ol>
South Jasper (mountain woodland caribou)	Population has declined by approximately 25% over the last 20 years, but has been stable or increasing for the last 5 years.	To be designed in concert with Jasper National Park	To be designed in concert with Jasper National Park
North Banff (mountain woodland caribou)	Population of very few animals; immediate risk of extirpation.	To be designed in concert with Banff National Park	To be designed in concert with Banff National Park





Map 2: Industrial Working Group WCCLPT Evaluation Area





Map 3: Weyerhaeuser Grande Prairie Spatial Harvest Sequence

