AKNOWLEDGEMENTS

The Foothills Landscape Management Forum (FLMF) Integrated Industry Access Plan (IIAP) was developed with the support of the Foothills Research Institute. The IIAP was created through the work of many individuals (listed below) representing forest and energy companies. Alberta Government staff from Sustainable Resource Development (ASRD) and Energy provided support, advice, and local expertise. Special thanks are due to Chantelle Bambrick from the Foothills Research Institute who coordinated input from the industrial sectors and maintained databases and map products to work from. The databases are updated frequently to reflect the most recent roads and barriers information. These data are available to ASRD and the industrial partners of the FLMF via the Foothills Landscape Management Forum’s internet mapping site.

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EXECUTIVE SUMMARY

Increasing road access in the ranges of the Little Smoky and A la Peche caribou herds is needed to support allocated resource extraction and associated economic and social benefits. The Government of Alberta endorsed the 2006 access plan as a guiding tool on June 23, 2006, and also reinforced the need to integrate and coordinate the access requirements of the forest and oil and gas sectors, and to develop a monitoring and reclamation plan. The Foothills Landscape Management Forum (FLMF) believes that upfront road planning will reduce the future road footprint resulting from the current “plan as you go” approach. Minimizing the footprint from long-term access through a coordinated approach will benefit the caribou herds, other species, sustainable forest management, and the environment.

In the spring of 2008, the FLMF worked with the Alberta Government to officially establish the Integrated Industry Access Plan (IIAP) as the basis for access development with approval of primary corridors under an “Information Letter”. As part of this process, the FLMF developed a condensed IIAP that dealt with the corridors and not other key items including monitoring, reclamation and ongoing reporting. On July 8, 2008, the government approved the condensed IIAP, titled the Berland Smoky Access Plan (BSAP), and issued Information Letter 2008-05 (Appendix I). The annual IIAP submission is essentially a monitoring report on the change in access development in all categories as well as comparing the IIAP to hypothetical unplanned areas and townships fully developed to validate the effectiveness in reduction of intensity of industrial access footprint over time.

In the future, dependent upon the outcome of the Regional Access Development (RAD) Plan detailed in the ASRD approved Terms of Reference (TOR) of June 19, 2009 (Appendix II), it is anticipated that the annual IIAP report will be replaced by a more comprehensive “stewardship report” which will track progress towards targets and thresholds for grizzly bear and caribou.

The IIAP process for the Little Smoky and A La Peche caribou ranges is funded solely from FLMF annual membership dues. The annual submission is distributed to various government employees and is posted on the Foothills Research Institute (FRI) website each fall.

The current members of the FLMF are:

- ANC Timber Ltd.
- Aseniwuche Winewak Nation of Canada (Grande Cache)
- Canadian Natural Resources Ltd.
- Canfor (Canadian Forest Products Ltd.)
- ConocoPhillips Canada Resources Ltd.
- Devon Canada Corporation
- Encana Corporation
- Foothills Forest Products Inc.
- Hinton Wood Products, a division of West Fraser Mills Ltd.
- Husky Oil Operations Ltd.
- Shell Canada Ltd.
- Suncor Energy Inc.
- Talisman Energy Inc.
- Tourmaline Oil Corp.
- TransCanada Pipelines Limited
1.0 HISTORICAL OVERVIEW OF THE FLMF

Several industrial companies operating in the Hinton, Alberta area, discussed the concept of developing a caribou management association in November of 2004. In May, 2005, the concept came to fruition as the Caribou Landscape Management Association (CLMA). At the Association’s inception, it was agreed it would operate under the umbrella of the Foothills Model Forest.

In the spring of 2008, the Foothills Model Forest officially changed its name to the Foothills Research Institute. At the same time, the CLMA changed its name to the Foothills Landscape Management Forum. The FLMF name better reflects the objectives that have evolved beyond that of just caribou and recognizes that the FLMF is a voluntary forum forwarding the cause of integrated land management (ILM).

The Forum’s 2009 efforts focused on:

1) Cooperating to reduce the future industrial footprint in caribou habitat;
2) Conducting a vegetation inventory of historical seismic lines for the Little Smoky caribou range;
3) Developing a restoration program for the historical industrial footprint;
4) Continuing to monitor and report annually on changes in industrial footprint within the Little Smoky and A la Peche caribou ranges;
5) Working with ASRD to develop a Terms of Reference for a secondary road plan;
6) Supporting applied research to increase knowledge about caribou and caribou habitat for the purpose of caribou conservation;
7) Partnering and supporting Alberta government initiatives to manage caribou and grizzly bear recovery and;
8) Moving towards implementation of key recommendations resulting from the West Central Caribou Landscape Planning Team (WCCLPT); and
9) Advancing Integrated Land Management in Alberta.

2.0 INTEGRATED INDUSTRY ACCESS PLAN (IIAP)

2.1 Introduction

Increasing road access in the ranges of these two caribou herds is needed to support allocated resource extraction and associated economic and social benefits. However, increased road access and associated development is correlated with declining caribou populations. Although the cause and effect mechanism of the correlation is not well understood, planning the overall long-term road footprint in caribou ranges is generally accepted as desirable and beneficial for caribou conservation as well as conservation of other ecological values.

The IIAP was developed using the best available knowledge to create a guiding plan for access development. There are many factors that could cause the plan to be revised such as:

- Mountain pine beetle could significantly affect timing of forest harvesting;
- New information about ongoing energy exploration and development may affect location and timing of corridors;
- Better on-the-ground route selection (compared to preliminary reconnaissance) to deal with safety and environmental concerns and caribou habitat.
The IIAP consists of an annual report outlining access corridor refinement (i.e. location, timing), monitoring (industrial footprint updates and tracking), and reclamation (recovery of caribou habitat). The resubmission will be completed each September. The IIAP itself will remain intact unless an amendment is required.

2.2 Area Overview / Resource Allocation

The target area encompasses a tract of land in west-central Alberta in the foothills region of the Rocky Mountains totaling approximately 5000 (4954) square kilometers. It is situated east of the town of Grande Cache, has the Willmore Wilderness Park along its west boundary and extends east, near to Highway 43. It has vast resource values including scenic landscapes, timber, energy (gas and oil), wildlife and water.

The timber resource is comprised predominately of lodgepole pine and has been allocated to the following six companies, three of whom have Forest Management Areas (FMA):

- Ainsworth – Deciduous Timber Allocation (DTA G150003)
- ANC Timber Ltd. – FMA holder
- Canadian Forest Products Ltd. – FMA holder
- Foothills Forest Products – Coniferous Quota
- Hinton Wood Products, a division of West Fraser Mills Ltd. – FMA holder
- Tolko Industries Ltd. – Deciduous Timber Allocation (DTA G150002)

Their initial and ongoing investment in processing facilities is based on full access to timberlands. Some companies have deferred harvesting in the caribou ranges in the short term, while awaiting direction and advice on the conservation of caribou habitat and population recovery from the WCCLPT. Industry eventually must access this area to support their investment and the sustainability of the respective resource-based communities. Additionally, forest companies are currently developing plans to deal with the immediate “green attack” of mountain pine beetle. An infestation of mountain pine beetle has the potential to significantly impact their operations and the economic and social health of the associated resource-based communities.

Similarly, the energy sector has purchased dispositions from government within the area and has invested extensively in the exploration of the energy resource. Their investment in exploration continues, as well as in the infrastructure that transports and processes known energy reserves. In order to access resources that have been allocated by the government, more roads are required. However, both industrial sectors recognize that in order to access the land they must ensure their impact on other resources is minimized. While there are many other resource values in the area in addition to caribou, it has been identified as the most critical and is the focus of this effort.

2.3 Scope / Geographic Area

The IIAP covers the range of the Little Smoky and A la Peche caribou herds within the Caribou Planning Area identified in the 1996 Operating Guidelines for caribou ranges in west central Alberta (Map 1 – Appendix III). The western portion of the A la Peche caribou range in Willmore Wilderness Park and Jasper National Park was not included.
2.4 Road Plan

The IIAP identifies current and future permanent Licence of Occupation (LOC) road access corridors for the entire plan area based on resource values (see below) and the projected access needs of all industrial resource users. The IIAP does not include temporary or permanent spur roads (short roads branching off main roads). However, as they are constructed they will be tracked in the monitoring process discussed later. Existing roads by class are indicated on Map 2 (Appendix III). Resource users planning spur roads will link to the IIAP and to operational guidelines (e.g. 1996 Operating Guidelines, West Central Producers Group (WCPG) Best Practices).

2.5 Preparation and Contents

The FLMF adopted the Base Features Road Classification System. To be consistent with the Grizzly Bear Recovery Plan road classifications, the FLMF operates with and monitors classes 1 – 9 and 14. Classes 10 – 13 are temporary roads and therefore are not monitored in the IIAP. Roads are colour coded to indicate their standard and given a number which is common to all the map products.

Table 1. Base Features Road Classification System.

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
<th>FLMF Map Colour Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Paved</td>
<td>Thick Red</td>
</tr>
<tr>
<td>2</td>
<td>Gravel – 2 lane</td>
<td>Surface +7 m wide, ROW +30 m wide</td>
</tr>
<tr>
<td>3</td>
<td>Gravel – 1 lane</td>
<td>Surface – 6 m wide, ROW – 20 m wide</td>
</tr>
<tr>
<td>4</td>
<td>Unimproved</td>
<td>Surface up to 7 m wide, ROW up to 20 m wide</td>
</tr>
<tr>
<td>5</td>
<td>Truck Trail</td>
<td>Surface +6 m wide, Streams are generally forded</td>
</tr>
<tr>
<td>6</td>
<td>Winter Road</td>
<td>Clearing that is accessible by vehicle in winter only, Snow or ice surface (usually over swamp, bog or muskeg)</td>
</tr>
<tr>
<td>7</td>
<td>Unclassified / unknown</td>
<td>Work is being done to determine road class for these roads</td>
</tr>
<tr>
<td>8</td>
<td>Deactivated Road</td>
<td>A deactivated road is one that has been temporarily retired and will be used again in the future</td>
</tr>
<tr>
<td>9</td>
<td>Reclaimed Road</td>
<td>A reclaimed road is one that has been returned to its previous productive state</td>
</tr>
<tr>
<td>14</td>
<td>Overgrown ROW</td>
<td></td>
</tr>
</tbody>
</table>

The objective of the FLMF is to have the “best available data,” at any given time, for resource managers and FLMF partners to use. Therefore, the data must be updated in a timely manner to accurately reflect reality on the landscape.
3.0 IIAP CORRIDORS

The FLMF identified corridors that are required for the forest and energy industrial sectors (Map 3 – Appendix III). There is a corresponding database which includes a description of the road, purpose, selection criteria, analysis, mitigation factors, and consideration of other values for all identified corridors. In keeping with the principle of reducing the future industrial footprint, many of the corridors proposed are within existing cleared right of ways (Table 2) (Map 3).

Table 2. IIAP Corridors - New vs. Existing Clearing as of October, 2008.

<table>
<thead>
<tr>
<th>Number of Corridors</th>
<th>Total Kilometres</th>
<th>New Clearing (Km)</th>
<th>Existing Clearing (Km)</th>
<th>New Clearings (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>697</td>
<td>104</td>
<td>593</td>
<td>15</td>
</tr>
</tbody>
</table>

4.0 RECLAMATION / RESTORATION PLAN

The FLMF will develop a landscape level restoration program to manage the historical industrial footprint to support enhancement of caribou habitat in the short and long term. However, the restoration plan cannot be developed until a vegetation inventory is completed and the West Central Caribou Landscape Recovery Plan is accepted by the government. With ASRD support and funding, the FLMF will have completed a digital inventory of the entire Little Smoky caribou range by March, 2010. This inventory (a first in Alberta) will allow the following to be completed:

1. Provide a foundation for the development of a landscape level restoration plan.
   Line selection criteria may include:
   - Adjacency to primary intact areas.
   - Areas with low existing use (ie. Areas adjacent to high use roads may not be effective).
   - Quantity of early seral stands (restoration plans should consider putting similar age class vegetation on similar trajectories).
   - Projected intensity of industrial activity (there is no point in restoring areas subject to high intensity development).

2. Manage operational re-vegetation initiatives.
   - Identification of candidate lines.
   - Isolation of lines.

Selection of type of tree species will depend upon key objectives we are trying to meet. While it would be preferred that we reforest back to the original tree species that existed before the line was established (the inventory provides data on the adjacent stand type), some lines have overgrown with deciduous tree species. If the line is impassable or creates a barrier for line of sight it will likely be left as is for the short term.

When completing the restoration plan, we would be applying the learnings from the previous Caribou Range Restoration Program (CRRP) and local silvicultural expertise that exists in the industry. The steps are as follows:

- Complete the inventory.
- Apply the inventory findings to models to determine if restoration is still a priority.
- Develop a landscape level restoration plan.
- Implement and apply restoration plan to models to determine if this helps us meet targets and maintain access to the resource.
• Monitor and report.

3. Develop a re-vegetation or vegetation control decision support system.
   Are some lines candidates for vegetation control (ie. Control or remove moose food)?

4. Develop long-term monitoring / research programs.
   • Utilization of lines by ungulates.
   • Utilization of lines by predators.
   • Is the 250m buffer appropriate?

5. Enable effective management of access routes used recreationally by the general public (the inventory includes an assessment of level of use by quads, vehicles and animals).
   • Analysis of use behind gates (test effectiveness of access controls). Note that we also completed a spatial inventory of gates and other access controls (berms, removed bridges, culverts, cross ditches, etc).
   • Analysis of use in general.
   • Open route densities for being aware of and sensitive to grizzly bear thresholds.

6. Enable effective management of new oil and gas developments which require re-clearing of existing lineal features, most commonly seismic lines.
   • Development of a referral / decision making tool for land managers.
   • Decision support tool.

7. Identify other regions of preferred habitat not currently utilized by caribou herds.

8. Determine when a linear feature no longer influences caribou behaviour / avoidance (to determine at what point the 250m buffer can be turned off in certain models) – see attached letter from Doug Sklar regarding the measurement of the range within 250m of anthropogenic disturbance (Appendix IV). Criteria:
   • Line of sight.
   • Density of cover (criteria).
   • Height of cover (criteria).
   • Trafficable (ability to drive on).
   • Species (criteria).

9. Update habitat models (natural recovery rates / trajectory by ecosite).
   It is suggested that we supplement the inventory with a series of plots to develop recovery rate trajectories by ecosite. This is a critical element but is complicated by re-use of lines which is why we are estimating origin (the last disturbance dates based on vegetation in the inventory).

10. Use for development of a regional access plan (secondary road plan TOR in progress – project underway now by ASRD and FLMF).
    • Use of existing disturbance vs. new clearings.
    • Tracking: baseline monitoring and reporting.

In the future, as part of the RAD Plan, a landscape level restoration plan will be developed that will include sustainable funding mechanisms. This reclamation plan will be reviewed annually by the FLMF Steering Committee to ensure effectiveness, track funding levels and requirements, and approve a detailed work plan. Formal approval of the IIAP by ASRD is required to move forward with this reclamation plan.

It is important to note up front that the future reclamation plan will be developed to recover historical lineal disturbances but that an actual reduction of footprint may not be feasible given the current state of resource development. The IIAP, however, is expected to result in fewer footprints than without as previously discussed. This, combined with a reclamation plan to deal with historical footprint, will result in a more favourable environment for caribou in the longer term.
4.1 Objectives

The specific objectives of the reclamation plan will be:

1) To reintroduce areas disturbed by access onto a seral trajectory that will allow it to contribute to the long-term conservation of caribou habitat;
2) To reduce the impact of new development of access route corridors identified in the IIAP by reducing the “net” amount of active roads in the area;
3) To accelerate the recovery of human-caused linear disturbances;
4) To return disturbed areas to natural tree / vegetation cover; and
5) To influence predator and human access.

4.2 Restoration Activities

There are three categories of restoration:

1. Company obligation;
2. Project specific; and
3. Landscape level (FLMF).

4.2.1 Company obligation restoration (Reclamation Certificates)

This is ongoing company-specific restoration for abandonment of roads (LOC’s), well sites, inter-cutblock roads, and other disturbances once activities are complete. This category will continue to be dealt with by the company and the regulator (government). The only role the FLMF will have is tracking the reclamation and disturbance layers as part of the IIAP monitoring report. The following criteria will be used for this category:

Deactivated Road
A deactivated road is one that has been temporarily retired and will be used again in the future. Deactivation includes the retention of the road grade and could include removal of watercourse crossings, seeding, rollback, water bars and other methods to reduce maintenance needs and prevent on-highway vehicle use. It is anticipated that the secondary RAD will identify roads that could be deactivated or listed as redundant.

Reclaimed Road
A reclaimed road is one that has been returned to its previous productive state. This includes establishing stable water drainage, contouring surfaces to a stable landform and reforestation.

The kilometers of road proposed for deactivation or reclamation will be tracked over time with a baseline of 2007 (Table 3) (Map 4 – Appendix III).

Table 3. Kilometers of road proposed for reclamation and deactivation as of October, 2009.

<table>
<thead>
<tr>
<th>Amount of road planned for deactivation (km)</th>
<th>Amount of road planned for reclamation (km)</th>
<th>Amount of active roads (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>21</td>
<td>2,123</td>
</tr>
</tbody>
</table>
4.2.2 Project specific restoration

In certain areas it may be determined that a company’s project plans may warrant project specific restoration. This would be determined by the scale of the project, location and activity being undertaken and will be specific to the company.

4.2.3 Landscape level restoration

This category is intended to develop a sustainable mechanism to restore historical industrial footprint in the FLMF area. It does not replace the other categories or specific company obligations for reclamation certificates (RC’s). This category will be managed by the FLMF, on behalf of its member companies, for the entire range areas to ensure that the best value for caribou is achieved. This will mean that a road or other disturbances’ “area of influence” may not be a priority for restoration and the commitment will be in an area that is determined to be the most effective for caribou. In fact, it may be that the resources would best be placed in other areas of caribou management such as research. It is recognized by the FLMF that population management of primary prey and predators may be the most effective for immediate positive caribou response and provide the maximum benefit. However, any future industrial restoration funding is not intended to replace or supplement ASRD’s responsibility for this.

The WCCLPT has identified linear disturbance as a potential impact to the west central caribou herds. Linear disturbance reduces the amount of caribou habitat over 80 years of age, may retard its regeneration, may promote early successional species palatable to primary prey, may enhance travel by predator species, may promote habitat avoidance by caribou and improve recreational access which increases disturbance.

The current industrial footprint in the FLMF area that are available for restoration include: seismic lines, roads, pipelines and well sites. However, the actual impact has been more difficult to identify because there has been a lack of inventory and limited response monitoring. This results in a lack of information on:

- The amount and quality of natural recovery;
- Delay rates of natural recovery;
- Rates of recovery response;
- The range of successional pathways;
- Ecosite map availability and ecosite response;
- Species composition response – Pl, Sw, Sb;
- Ground story species composition and response;
- Historical treatments for erosion control and associated reasons;
- Slope, aspect, elevation and line orientation differences;
- The relationship of linear disturbance response to existing PSP data; and
- The relationship between cutblock response and linear disturbance response.

The WCCLPT has agreed, through modeling and tactical planning endeavors, that restoration of linear disturbance, prioritized by range and intactness maps, can be beneficial to the long-term maintenance and improvement of the west central caribou populations.
Restoration area priorities:
- ROW’s (roads, pipelines, seismic lines) within identified Intact Areas;
- Reclaim ROW’s in the centre of caribou range;
- Reclaim ROW’s that either prevent or eliminate “loop roads”;
- Reclaim ROW’s within known high caribou use areas;
- Roads immediately adjacent to high use main roads may not be as beneficial as roads in low use areas.

4.3 Vegetation Response Monitoring

Use methods / protocols as written in the CRRP Monitoring Manual. Data will be entered into a database that will be maintained at the FRI. Copies will be provided to FLMF member companies and ASRD. In addition, any completed restoration projects will be marked as such in the inventory database.

4.4 Other Companies

All FLMF member companies provided input into this plan, however, many roads identified for reclamation may be owned by other companies as listed in the reclamation plan database. Once the restoration plan is completed, there may be many lineal disturbances that are a priority of restoration/reclamation that are owned by other companies. The difficulty in this will be that the owner of the road may not agree with restoration (e.g. MD roads). ASRD may be required to provide support for ensuring that reclamation can occur in these areas. As well, ASRD may be required to ensure that approvals are not given for clearing areas that have already been reclaimed.

5.0 MONITORING REPORT

The annual reporting and monitoring report measuring the plan’s effectiveness of reducing the industrial footprint is a necessary and important component of this plan. The results of effectiveness monitoring will be considered a part of the annual review of the IIAP and the plan will be amended as necessary. The baseline will be the year as of September 30, 2007. A comparison of existing disturbance from 2007 to 2009 is shown in Table 4. Tracking effectiveness in 2009 is shown in Table 5. The amount of caribou habitat influenced will form part of the secondary RAD plan stewardship report. While the previous IIAP annual reports included a sample area to track this, it was abandoned for this year as it will be replaced with a landscape level stewardship report starting in the spring of 2010.
Table 4. A Comparison of Existing Disturbance from 2007 to October, 2009.

<table>
<thead>
<tr>
<th>Disturbance</th>
<th>2007 Linear Km</th>
<th>2007 Density Total area = 4954 km²</th>
<th>2008 Linear Km</th>
<th>2008 Density Total area = 4954 km²</th>
<th>2009 Linear Km</th>
<th>2009 Density Total area = 4954 km²</th>
<th>Change in Density (%)</th>
<th>Source of Data and Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1 Paved</td>
<td>46</td>
<td>0.009 km²/km²</td>
<td>46</td>
<td>0.009 km²/km²</td>
<td>46</td>
<td>0.009 km²/km²</td>
<td>0</td>
<td>Foothills Research Institute October 01, 2009</td>
</tr>
<tr>
<td>Class 2 Gravel 2 lane</td>
<td>219</td>
<td>0.044 km²/km²</td>
<td>201</td>
<td>0.041 km²/km²</td>
<td>192</td>
<td>0.039 km²/km²</td>
<td>* - 0.5 %</td>
<td>ASRD Date: Unknown</td>
</tr>
<tr>
<td>Class 3 Gravel 1 lane</td>
<td>525</td>
<td>0.106 km²/km²</td>
<td>544</td>
<td>0.110 km²/km²</td>
<td>549</td>
<td>0.111 km²/km²</td>
<td>* + 0.5 %</td>
<td></td>
</tr>
<tr>
<td>Class 4 Unimproved</td>
<td>369</td>
<td>0.074 km²/km²</td>
<td>406</td>
<td>0.082 km²/km²</td>
<td>494</td>
<td>0.100 km²/km²</td>
<td>+ 2.5 %</td>
<td></td>
</tr>
<tr>
<td>Class 5 Truck Trail</td>
<td>35</td>
<td>0.007 km²/km²</td>
<td>48</td>
<td>0.010 km²/km²</td>
<td>83</td>
<td>0.017 km²/km²</td>
<td>+ 1.0 %</td>
<td></td>
</tr>
<tr>
<td>Class 6 Winter</td>
<td>404</td>
<td>0.082 km²/km²</td>
<td>666</td>
<td>0.134 km²/km²</td>
<td>758</td>
<td>0.153 km²/km²</td>
<td>+ 7.1 %</td>
<td></td>
</tr>
<tr>
<td>Class 7 Unclassified</td>
<td>25</td>
<td>0.005 km²/km²</td>
<td>38</td>
<td>0.008 km²/km²</td>
<td>1</td>
<td>0.000 km²/km²</td>
<td>- 0.5 %</td>
<td></td>
</tr>
<tr>
<td>Class 8 Deactivated</td>
<td>45</td>
<td>0.009 km²/km²</td>
<td>43</td>
<td>0.009 km²/km²</td>
<td>38</td>
<td>0.008 km²/km²</td>
<td>- 0.1 %</td>
<td></td>
</tr>
<tr>
<td>Class 9 Reclaimed</td>
<td>48</td>
<td>0.010 km²/km²</td>
<td>66</td>
<td>0.013 km²/km²</td>
<td>74</td>
<td>0.015 km²/km²</td>
<td>+ 0.5 %</td>
<td></td>
</tr>
<tr>
<td>Class 10 Overgrown ROW</td>
<td>18</td>
<td>0.004 km²/km²</td>
<td>18</td>
<td>0.004 km²/km²</td>
<td>8</td>
<td>0.002 km²/km²</td>
<td>- 0.2 %</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1735</strong></td>
<td><strong>0.350 km²/km²</strong></td>
<td><strong>2076</strong></td>
<td><strong>0.419 km²/km²</strong></td>
<td><strong>2243</strong></td>
<td><strong>0.453 km²/km²</strong></td>
<td><strong>+ 10.3 %</strong></td>
<td></td>
</tr>
</tbody>
</table>

* The change in density for Class 2 and Class 3 roads is due to a reclassification of roads (not a reduction) through the extensive work done in an ongoing effort by the FLMF to have the best available data as well as a joint effort with ASRD for the Grizzly Bear Recovery Plan (to be able to determine open route densities).
Table 5. Tracking Effectiveness in 2009.

<table>
<thead>
<tr>
<th>Measurement</th>
<th>No IIAP ANC (hypothetical)</th>
<th>Twp. 59–26 only</th>
<th>Fully developed Twp. 59-24</th>
<th>Active Roads Classes 1 – 7 Oct, 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # Linear Kilometres</td>
<td>360</td>
<td>105</td>
<td>89</td>
<td>2,123</td>
</tr>
<tr>
<td>Density (Km/km²)</td>
<td>1.07</td>
<td>1.1</td>
<td>0.94</td>
<td>0.43</td>
</tr>
</tbody>
</table>

5.1 Future Reporting

Future reporting will be a part of the RAD Plan which will include a stewardship report to track progress towards targets over time for grizzly bear and caribou.

6.0 INTEGRATED MANAGEMENT

The FLMF successfully identified the known energy and forest industry access needs through the previously mentioned processes. The collaboration and cooperation between industry sectors and government support staff at the landscape level is an example of how things can be done to achieve objectives. While this has worked extremely well thus far, there will undoubtedly be issues that will need to be addressed as the FLMF continues to mature and grow as an association. The FLMF believes its membership will continue to increase as its programs produce results that demonstrate it is beneficial and in the best business interest of the members.

The forest industry conditional deferral within the intact areas is not accompanied by a similar deferral from the oil and gas industry. Therefore oil and gas will undertake road layout in the intact areas. These roads must consider forest haul requirements and corridor planning to minimize activity and disturbance.

Currently, primary roads have been identified and approved for two areas in the west central caribou range. These are found in the Kakwa Copton and the Berland Smoky Access Plans. In a joint effort with ASRD, the FLMF intends to complete a secondary road plan for an area that encompasses the entire BSAP area and identify any issues or constraints for landscape level planning by March 31, 2010 (Appendix II).

7.0 CONFLICT RESOLUTION

Resolution of the issues listed above will require a cooperative and flexible approach by the industrial sectors and between companies. The FLMF essentially operates as a voluntary group with common interests and with recognition that integration is essential. However, it cannot be the sole mechanism for resolving conflicts between companies. The FLMF will encourage companies to work out their differences and cooperate on the landscape for the best interest of industries as a whole. The FLMF is an excellent mechanism for development of relationships and for the different sectors to learn more about the other’s business needs, which is a significant step forward.

8.0 LEGAL AUTHORITY

The legal authority for roads rests with the Alberta government, which approves road plans for all developers. Control of access use is also the responsibility of the Alberta Government, which may use disposition conditions to require the owners of access dispositions to install access control structures. The
Alberta government is also responsible for regulating Off Highway Vehicle (OHV: motorcycle, quad, snowmobile, etc.) use and other anthropogenic use of access. In some cases, it may be necessary to control public use of access to protect important resource values.

9.0 COMMUNICATIONS

The FLMF has developed a process for communications between industrial proponents to collaborate on access planning and development and is key to the success of the IIAP. The FLMF will utilize the FRI infrastructure to ensure the IIAP and other related initiatives are transparent and readily accessible to all interested parties.

It is anticipated that the secondary RAD plan will include key recommendations for ASRD and FLMF to develop and implement a communications and education plan for internal and external use.

10.0 SUMMARY / NEXT STEPS

Several developments in 2007 and 2008 reinforce the approach that industrial development needs to consider more than economic values, and more than primary access (roads).

- The Alberta Grizzly Bear Recovery Plan (October 2007) identified the need to manage open route densities in core and secondary areas to reduce risk of human caused bear mortality.
- The ILM Program (December 2007) identified operational principles that support engagement of stakeholders in efforts to reduce and better manage footprint.
- The Land-use Framework (December 2008) recognized the need to manage cumulative socio-economic and environment effects.
- The Action Plan for West Central Caribou Recovery (release date to be confirmed) calls for management and planning of the industrial footprint.

The FLMF and the Alberta Government have recognized the value of integrated planning. A TOR was approved by the government in June, 2009, for the FLMF and ASRD to jointly develop a RAD Plan (secondary road plan) that will include a review of mitigation practises and approval processes, a first of its kind in Alberta.

10.1 Deliverables

The primary deliverable of this project is the development of a RAD Plan. The Government of Alberta is taking a lead role in plan development and will work in a collaborative process with the FLMF. The government and FLMF will co-manage the development of the plan. The Plan will not consider seasonal roads, those in use for less than 2 years, or in-block roads and access to well-heads. The Plan will:

- Validate the original primary access corridors identified in the 2008 approved IIAP;
- Rationalize the need for secondary roads in the future (those coming off of primary corridors);
- Identify whether the planned roads are required as permanent or temporary access; and
- Align pipeline routing.

As part of the planning process, the project will identify, evaluate and make recommendations on:

- integrated access management and mitigation strategies (e.g., gates, restoration) that can be used across a variety of planning processes and time horizons (i.e., DFMP, AOA, individual dispositions, etc.);
• risk assessment models;
• parameters required for computer modelling, simulation and scenario testing;
• data needed to support this planning, along with data security, compilation, maintenance, and storage needs;
• information and communication strategies for government, industry and other audiences;
• opportunities to improve/enhance the current SRD approval system for such plans;
• misalignments, operational conflicts (such as FMA vs IL 2003-23 road standards), and barriers to planning (e.g., other departments); and
• monitoring and evaluation processes to assess plan implementation against targets for all new (as built) footprint.

For all of the above, the opportunities and challenges of the approaches selected will be documented to capture key learnings for future RAD planning efforts. In the future, dependent upon the outcome of the secondary road pilot project, the FLMF intends to expand the IIAP into a primary and secondary corridor plan and, if possible, will include pipelines, power lines and other lineal disturbances. In addition, once the inventory work is complete a more comprehensive restoration program will also form part of the annual submissions.

As this is a living reporting document, the FLMF will be continually updating databases over the next year and posting updates to the FLMF website. In addition, the FLMF is committed to facilitating the implementation of any strategies that may come from the direction of ASRD resulting from the Land Use Framework, ILM, Grizzly Bear Recovery Plan and Alberta West Central Caribou Recovery Report.
**APPENDIX I**
Berland Smoky Access Plan Information Letter 2008-05

**APPENDIX II**
Berland Smoky Regional Access Development (RAD) Plan Terms of Reference (TOR)

**APPENDIX III**
CD on back cover of report (includes .pdf files of all maps and the IIAP document)

**APPENDIX IV**
Letter from Doug Sklar