



KAKWA  **COPTON**
INDUSTRIAL ACCESS PLANNING COMMITTEE
INDUSTRIAL ACCESS CORRIDOR PLAN
JUNE 20, 2006

Foreword (Derived From Covering Letter)

Industry commends the Alberta Government for its initiative in bringing together the undersigned companies to work on a shared access corridor plan for the Kakwa Copton area. The Province initiated this process in October 2004, and has actively participated in the process through the development of a Terms of Reference, guidelines provided to companies, joint meetings and three rounds of comments provided to the participating companies.

The companies represented on the Committee have worked together to provide a complete package. Included are the following:

- 1) An overview that describes the work and the conditions of approval;
- 2) A map that shows (a) individual disposition requests, and (b) the reduced footprint resulting from corridor coordination;
- 3) The criteria that government and industry used to review corridor options (the document proposes that these be the ongoing criteria for road location and review);
- 4) The communication and coordination process that forestry and oil and gas companies are expected to follow;
- 5) The corridor assessment that industry has submitted to government.

The participating companies are making this effort because they feel that a coordinated corridor approach is potentially beneficial. However, the companies do not wish to participate in a process that involves this much work and company risk, if the process only results in individual road approvals, and the approval of all-weather (class 3) roads is generally resisted, even when the resource rights have been sold and the need has been demonstrated. As such, the companies applaud the effort to develop a corridor plan and a corridor approval process as part of the Integrated Land Management system in the emerging Land Use Framework. It is their hope that this plan can be a successful model of how Alberta can achieve desirable results (i.e. reduced footprint, coordinated use, and mutual cooperation in road management) through collaboration.

Sincerely,

KAKWA COPTON INDUSTRIAL ACCESS PLANNING COMMITTEE
(Industry Representatives noted below)

Bill McMillan, Facilitator

Kakwa Copton Industrial Access Planning Committee Industry Representatives:

Husky Energy

Devon Canada

CNRL

Grande Cache Coal

Weyerhaeuser Company Ltd.

Hunt Oil Company of Canada

Conoco Phillips

Petro-Canada

Canadian Forest Oil Ltd.

Talisman Energy

Nexen Energy

1. Purpose of the Plan

The Kakwa-Copton Access Corridor Plan (the Plan), as approved by Sustainable Resource Development (SRD), establishes a proposed network of permanent road corridors for the defined Plan area. It was developed under an Integrated Land Management (ILM) approach where, through the collaborative efforts of the developers, the overall industrial footprint is lessened.

Forest resource tenure in the area is held under a single Forest Management Agreement (FMA) by Weyerhaeuser Company Ltd. Petroleum and Natural Gas (P&NG) tenure agreements cover the area, and are held by several companies.

Continued petroleum and natural gas access into the area is anticipated, while Weyerhaeuser continues to implement its Detailed Forest Management Plan. With the support of Alberta Sustainable Resource Development and Alberta Energy, the companies initiated cooperative planning of all-weather access. The process identified access options and compared them with consideration for environmental sensitivities, terrain constraints, potential shared benefits and conflicts, and engineering specifications. The intention was to provide necessary access with the least amount of impact and a reduced “industrial footprint” as compared to a non-integrated process.

2. Objective

The key objective of this coordination initiative was to minimize the impact of industrial access on other resource values through:

- Integrated planning between the forest and energy sectors
- Maximizing shared access among industrial users
- Assessment of available options for reclaiming access that is no longer required
- Providing information and recommendations on access coordination options to SRD. This includes verifying the corridor itself (confirming its usability), summarizing new developments since the corridor plan was developed, summarizing the pro's and con's of proposed access corridors and justifying deviations
- Providing an adaptive management approach to access development

Coordination must occur at the “landscape” level for main access corridor planning and at the “project-specific” level for branch access planning.

3. Development of the Plan

Development of the Plan took two years and significant investment and cooperation from companies in the area (see Attachment 1). The companies received direction from SRD and met on several occasions with representatives of SRD.

The Plan included the following key deliverables:

- 1) **Description of Landscape Access Corridors (Attachment 4):** The final SRD Approved Road Network is described on the Map. It was derived by the Plan proponents as a group through an iterative process beginning with a forecast of Uncoordinated Access Development Forecast, then optimizing the objectives and constraints for the Plan to arrive at the final proposal.

This network represents the amount and location of main, longer term all-weather access needs. All other access needs will be temporary in nature, or in accordance with IL 2003-23, or with operating ground rules for forestry operations. This approved road network also sets the potential architecture for all other associated forestry and oil & gas developments directly or indirectly related to access needs (e.g. well sites access, cut block access, possible pipeline ROW integration, etc.).
- 2) **Route Selection Criteria & Guidelines (Attachment 2):** These were used in the development of the approved corridors. The same criteria and guidelines will guide the construction or upgrade of individual roads as they are developed.
- 3) **Industry Collaboration and Communication Expectations (Attachment 3):** All industrial developers in the study area are required to adhere to the identified corridors and associated requirements, as well as collaborate and cooperate on all secondary access development.

4. Public Input

At the outset, the Plan proponents had a comprehensive understanding of local stakeholder concerns and interests from prior experiences. This was enhanced by consultation with the Grande Prairie SRD, who had also discussed these matters with various stakeholders, including Weyerhaeuser's Public Advisory Committee. The local Aiseniwiiche Winewak First Nation was advised of the Plan, and general information about it was shared with them for comment.

As industrial developers apply to develop roads on the approved corridors, they will keep stakeholders (and each other) informed. Stakeholder consultation on road proposals will address matters related to specific routing and construction methods.

5. Performance Indicators

The following performance indicators will guide implementation of the Plan:

- 1) Conformance of all permanent roads to the location and amount of approved corridors.
- 2) No cross-over road access from one access zone to another.
- 3) All roads to comply with the Route Selection Criteria / Guidelines.
- 4) All disposition applications have fulfilled the communication and collaboration expectations of the Plan and supporting Government requirements.
- 5) The Plan is maintained and updated to incorporate new information. All higher order plans, and changes to Government policy and regulation, are incorporated into future revisions to the Plan.

- 6) All recommended route reclamation is completed in a timely fashion.
- 7) Approvals occur in a timely fashion if the applicant conforms to the approved corridors and plan guidelines.
- 8) All companies in the area follow the Plan (including new entrants).

6. Plan Highlights

Highlights of the Plan, submitted in June 2006, include the following:

- 70% of the approved permanent road network already exists
- There is an overall 44.5% reduction in the amount of identified road in comparison to an uncoordinated approach
- 10% of the permanent roads that are described are approved LOCs but have not yet been built
- 20% of the permanent roads that are described have not been approved or built
- All companies operating in the area that were invited by the Crown to participate in the Plan have shared sensitive information necessary to produce the Plan
- All known resource information has been collated and utilized via a state-of-the-art GIS application (provided by Silvacom Ltd.) and is intended to be updated on an ongoing basis

7. Approvals

Approval by SRD is subject to the following terms and conditions (until such time as more supporting regulation and policy is in place):

- 1) All of the approved road corridors in the Plan are all-weather Class 3 standards (Alberta Resource Road Guidelines) for road construction and design, in advance of actual disposition application. Site-specific proposals for actual grade and watercourse crossing locations, and environmental protection requirements, shall be submitted with the application for any disposition within the approved corridor when the road becomes necessary as a result of a) an approved timber harvest plan or b) acquisition of mineral rights.
- 2) Road disposition applications within the Plan area will adhere to the Plan's Route Selection Criteria & Guidelines, and the Communication Expectations.
- 3) The Plan will be reviewed and revised as necessary in accordance with the proposed Implementation section of the Plan. The Plan will be reviewed by SRD and the Plan proponents following completion of the West Central Landscape Caribou Recovery Plan, and revised if necessary.
- 4) For individual disposition applications within the approved corridors, current stakeholder notification requirements will be followed.

8. Supporting Requirements of Government

In support of the Plan, the Alberta Government will undertake the following actions:

- 1) Establish Government notification and planning requirements that will support the proposed Communications Expectations and other Plan expectations. These would apply to disposition applications for both the approved corridors and any secondary road / well site applications. Examples may include establishing an Information Letter, Field Report, AOA standard, and/or Directive specific to the Plan area. SRD will consult with the Plan proponents before establishing such requirements.
- 2) Institute the appropriate measures to ensure all industry activities conform to the Plan.
- 3) Implement restrictions and controls on public access as necessary to manage fish & wildlife resources.
- 4) Facilitate and support the ongoing adaptive management of the Plan as per the Implementation recommendations.
- 5) Resolve disputes or conflicts between industrial interests when asked, in accordance with the mandate provided by policy and legislation. It is recommended that specific principles and guidelines be put forth that will:
 - a. Encourage collaboration in access development;
 - b. Prevent undue control of access by any one company;
 - c. Establish dispute resolution processes regarding road partnering and use.
- 6) Expedite approvals of individual road applications that adhere to the Plan.
- 7) Share information that affects the Plan area, and maintain public documents concerning the Plan area.

9. Supporting Requirements of Plan Proponents / Industry

In support of the Plan, the Industry Proponents will undertake the following:

- 1) Accept a role and responsibility in the Plan implementation and success.
- 2) Voluntarily conform to the Plan expectations, especially those of Implementation. Any applications which change or contradict with the Plan should be justified with appropriate mitigation measures, or will require amendment to conform to the Plan.
- 3) Any company that wishes to make changes to the Plan must consult with the Plan proponents and other companies, then submit any changes to SRD for approval.
- 4) All individual disposition applications must consider the needs of other known industrial users. All developers are expected to make a reasonable effort to

consult or partner with other road users, including developing agreements on shared costs and use, before making application to SRD.

- 5) Maintain an ongoing relationship with other industry operators and developers, and to continue to work in a collaborative fashion. This includes making every effort to resolve disputes between industry proponents first, then, failing that, to approach SRD for resolution in a coordinated fashion.
- 6) Assist Government with public access management by public communication and education, signage, etc.
- 7) Share new information and findings, and keep maps and data sets up to date.

10. Implementation

Steps to implement the Plan include the following:

- 1) SRD approves the Plan complete with recommendations and advises Plan proponents accordingly. All SRD field staff will be brought up to speed on the components of the plan.
- 2) SRD notifies all existing industrial and commercial operators in the Plan area, and establishes means of advising future developers (e.g. IL referenced on land sales). The Plan and any subsequent revisions are posted to a website.
- 3) Access to information and data acquired for the Plan area will be subject to terms and conditions of the Plan proponents.
- 4) Plan proponents will continue as an ongoing defined group of involved companies, and, with SRD, establish a process for regular review and adaptation of the Plan including:
 - a. Monitoring against performance targets and indicators
 - b. Updated resource information and assessment opportunities
 - c. Establishing processes for responding to requests to amend or deviate from the Plan
 - d. Ongoing public input
 - e. Direction from higher order plans and regulatory / policy change
 - f. Broadening the scope of the Plan to encompass other land development activities

Attachment 1: Work Undertaken to Complete the Plan

Work on the Plan began in mid 2004 and went through the following stages:

- 1) SRD Grande Prairie invited companies known to have resource allocations in the area to a meeting to propose the need for coordinated access development.
- 2) 12 energy companies and 1 forestry company agreed to participate (referred to in this document as the Plan proponents).
- 3) SRD and the Plan proponents established a Terms of Reference for the Plan (this was supplemented by guidelines provided on several occasions by SRD).
- 4) The Plan proponents developed data and information requirements, acquired the facilitation service of Equus Consulting, formed a planning team, and developed an online GIS application with Silvacom Ltd.
- 5) The Plan proponents evaluated available routes and explored options in joint meetings with SRD on several occasions. They then developed a proposed Plan and submitted it to SRD.
- 6) After several iterations of the Plan, joint discussions were held with SRD to develop the final version of this Plan.

The information sets utilized for the Plan are listed below:

- All legal / survey land descriptions
- All existing access and linear developments
- Hydrography
- Topography
- All land use dispositions
- Environmental protection sites, land use zonation, and other resources users
- Archaeological sites (known and/or predicted)
- Fish & wildlife habitat and populations
- Forest management and operational planning
- Forecasted oil & gas development
- Orthophotos
- Variations of access development (i.e. optimization, forecasted without coordination, etc.)

Attachment 2: Route Selection Criteria/Guidelines

The following guidelines do not replace regulatory requirements, instead they provide a checklist for companies to use when scoping potential access routes. Any company not able to implement the broader range of the guidelines must inform SRD and describe an alternate mitigation approach.

Disciplines & Components	Criteria/Guidelines
BIOPHYSICAL SETTING	
Landform & Soils	<ul style="list-style-type: none"> • Avoid sites that will be difficult to reclaim • Follow natural benches, moderate slopes and ridges
Surface and Subsurface Drainage	<ul style="list-style-type: none"> • Avoid identified unstable areas, water-source areas, springs and seepages
Environmental Hazards	<ul style="list-style-type: none"> • Avoid areas of high potential flooding or landslide
LAND USE	
Forestry	<ul style="list-style-type: none"> • Consider harvest sequencing as per Weyerhaeuser Forest Management Plan
Historical Resources	<ul style="list-style-type: none"> • Follow ACD Guidelines. Avoid identified historical resource sites
Land Status and Designation	<ul style="list-style-type: none"> • Identify and consider reservations or notations
Production Facilities	<ul style="list-style-type: none"> • Consider connection to route for pipelines and transmission lines • Locate production facilities on existing disturbed sites where possible
Recreation	<ul style="list-style-type: none"> • Identify and consider recreation areas or trails that are valued by users • Identify need for access control if recreational use is anticipated
Wildlife Habitat	<p><i>Refer to FMA Ground Rules, Resource Road Guidelines, West Central Caribou Management Guidelines</i></p> <ul style="list-style-type: none"> • Construct roads away from important wildlife habitat areas, reproductive habitat for selected management species, important feeding habitat and watering sites • Avoid areas with high seasonal concentrations of single species or

Disciplines & Components	Criteria/Guidelines
	<p>multi-species wildlife use (e.g. critical wintering, breeding and birthing periods)</p> <ul style="list-style-type: none"> Minimize fragmentation of obvious wildlife movement corridors and core habitat areas Consult FMA holder for any special age class stand management objectives Avoid close encroachment on mineral licks
Visual Resources	<ul style="list-style-type: none"> Minimize creation of long sight lines and impairment of viewscape Minimize visual impacts, particularly near recreation areas
Noise Impacts	<ul style="list-style-type: none"> Avoid locating noisy infrastructure/facilities in areas of high recreation or wildlife value
Consultation	<ul style="list-style-type: none"> Minimize disturbance to non-disposition holders Consult with stakeholders who hold government approvals for land use in the area (e.g. dispositions and permits) and incorporate their input into the planning process to the extent possible Consult with aboriginal users regarding traditional and cultural use of the area
Other Land Use	<ul style="list-style-type: none"> Consider off-site disturbances (e.g. borrow pits, storage sites, etc.) Avoid areas of particular importance to Aboriginals
AQUATIC SYSTEMS	
<p>Aquatic and Riparian Habitat</p> <p>Other:</p> <p>Water Quality</p> <p>Benthic Fauna, Fish</p>	<ul style="list-style-type: none"> Apply Code of Practice for Stream Crossings for selecting crossing locations (in particular, see Schedule 2, Part 1) Meet requirements of section 35.1 of the Fisheries Act Avoid crossing Class A watercourses (e.g. Bull trout) Minimize the number of creek crossings Avoid encroachment on riparian and wetland areas
ENGINEERING	

Disciplines & Components	Criteria/Guidelines
Design Standards (refer to Resource Road Handbook standards)	<ul style="list-style-type: none"> • Use an alignment that accommodates long-term interests of both the forest and energy sector • Consider mineral development surface location preferences • Support Class 3 modified for grade and curve radius (check with FMAs) • Grade and sub-grade accommodates both energy and forest sector traffic
Length/Width	<ul style="list-style-type: none"> • Use the least space necessary for an acceptable route
Safety	<ul style="list-style-type: none"> • Specifications as per Road Class (3) e.g. width, road surface, favourable/adverse gradients; sight distance, minimum curve radius, design speed • Avoid steep or sustained slopes/grades
Strategic Nodes	<ul style="list-style-type: none"> • Consider the implications for traffic patterns for both forest and energy sectors • Consider future access management and control implications (identify key access control points prior to alignment selection)



Attachment 3: Industry Collaboration and Communication Requirements

Energy Sector		Forest Sector	
Activity	Communication	Activity	Communication
Mineral land posting and acquisition	Kakwa Copton Access Plan referenced on land sale listing	20-year Forest Management Plan	Projected access and sustainable management requirements communicated to other companies operating in area
Scouting potential surface locations and consulting stakeholders	Communicate with FMA holder and potential energy sector partners. Consult with SRD and directly affected stakeholders. Meet with First Nations.	Public Advisory Committee	Review of access management options and recommendations with public advisory committee. Information to, and dialogue with, First Nations.
Identify best route	Continued communication with FMA holder and others with a direct interest. FMA consent required.	5-year General Development Plan	Pursue sub-regional collaboration for road planning with other industrial operators. Phase 1 and Phase 2 report to SRD.
Disposition application	Application to SRD Environmental Field Report recommended.	Harvest designs 2-3 years ahead	Application to SRD. Environmental Field Report.
Public involvement (G-56 notification)	Information summary to stakeholders		
Apply to EUB	Analysis and consultation results		



Attachment 4: Industrial Access Corridor Recommendation

Road	Existing Condition	Recommended Specification	Corridor Analysis	Mitigation Action Steps
<p>(A) Beaverdam Road (From mine to north side of Copton Creek).</p>	<ul style="list-style-type: none"> • Non - all weather road. • Recognized historical access. 	<ul style="list-style-type: none"> • Class 3 • Permanent bridge on Copton Creek. • Eliminate existing controls. (removing bridge decks and gating which forces vehicles to ford rivers) 	<p>PROS:</p> <ul style="list-style-type: none"> • Existing Road • Favorable grades for all industrial users. • Use of this road will eliminate a Kakwa river crossing. <p>CONS:</p> <ul style="list-style-type: none"> • Current LOC does not allow for all weather use. 	<ul style="list-style-type: none"> • Access via the mine road / highway is controlled by MSL and a manned gate. • Access via the DRS Beaverdam could be controlled through gov't access management. • Continue to route ski doo traffic to developed ski doo trails. • Opportunity to upgrade an ATV trail if required.
<p>(B) Copton Road</p>	<ul style="list-style-type: none"> • Approved Class 3 	<ul style="list-style-type: none"> • As approved. 	N/A	<ul style="list-style-type: none"> • N/A
<p>(C) Copton Extension</p>	<ul style="list-style-type: none"> • Design Only. 	<ul style="list-style-type: none"> • Modified Class 3 	<p>PROS:</p> <ul style="list-style-type: none"> • Favorable grades for all industrial users. • If built then 8 km of permanent road and a 1000+ foot bridge will not be required on the West side of the Kakwa river. <p>CONS:</p> <ul style="list-style-type: none"> • Proximity to Caribou travel corridor. 	<ul style="list-style-type: none"> • Access control measures as per above implemented. Gate at start of Copton road closed when not in use.
<p>(D) Adelaide Road</p>	<ul style="list-style-type: none"> • All weather - energy access. 	<ul style="list-style-type: none"> • Modify alignment in future for timber extraction. 	<p>PROS:</p> <ul style="list-style-type: none"> • Eastern ½ of road is suitable for all industrial users. • Existing access 	<ul style="list-style-type: none"> • Gate at start of road closed when not in use.

Road	Existing Condition	Recommended Specification	Corridor Analysis	Mitigation Action Steps
			control in place. CONS: <ul style="list-style-type: none"> Western ½ of road requires re-alignment for timber harvesting. Proximity to Caribou travel corridor. 	
(D) Beaverdam Extension (That portion that runs north – south and parallel to Copton Creek.)	<ul style="list-style-type: none"> Existing all weather road. Recognized historical access. 	<ul style="list-style-type: none"> Class 3 for better environmental management. 	PROS: <ul style="list-style-type: none"> Eastern ½ of road is suitable for all industrial users. Existing access control in place. CONS: <ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Traditional access -maintain ski doo trail.
(E) CFO Road (Sheep Creek Road)	<ul style="list-style-type: none"> Class 3 (with unacceptable adverse grades for timber extraction) 	<ul style="list-style-type: none"> As constructed. 	<ul style="list-style-type: none"> Hauling of harvested timber via the Beaverdam road. 	<ul style="list-style-type: none"> Manned gate at start of road. Gate closed when road not being used.
(F) Husky Road	<ul style="list-style-type: none"> Class 4 Dry weather road. 	<ul style="list-style-type: none"> Upgrade to Modified Class 3. Modify alignment in future for timber harvesting and hauling. 	PROS: <ul style="list-style-type: none"> Existing road. Opportunity for upgrade to accommodate all industrial use. Allows for one access corridor to top of ridge. Avoids numerous watercourse crossings. CONS: <ul style="list-style-type: none"> Proximity to Caribou habitat. 	<ul style="list-style-type: none"> Gate is installed and closed when road not in use.
(G) East Pagakwan	<ul style="list-style-type: none"> Non - integrated 	<ul style="list-style-type: none"> Class 3 	PROS:	<ul style="list-style-type: none"> Opportunity to

Road	Existing Condition	Recommended Specification	Corridor Analysis	Mitigation Action Steps
Road	access existing. (with unacceptable adverse grades for timber extraction)		<ul style="list-style-type: none"> • Favorable grades for all industrial users. • Avoids key Caribou travel corridor. • Opportunity to decommission existing access in area. • Provides access to a very large area in the northern portion of the Kakwa Copton. • Placement is outside of a key historical value area. 	<p>reclaim existing roads / access in area if this multi-use road was built.</p> <ul style="list-style-type: none"> • This would reduce the existing spider-web of roads and reduce the development of more single use roads. • Examples include – portions of the Porcupine road, Goat road and the West Ridges road.
(K) Chicken Run Road	<ul style="list-style-type: none"> • Class 3 – front portion & then Modified Class 3 @ end of road. 	<ul style="list-style-type: none"> • As approved. 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
Mine Road	<ul style="list-style-type: none"> • Under MSL with very good access control by manned gate. 	<ul style="list-style-type: none"> • As constructed. • Continued multi-industry use of road to allow Beaverdam corridor use. 	<ul style="list-style-type: none"> • Unsafe traffic loading due to terrain issues, 24/7 coal haul, extensive timber haul and energy activity. 	<ul style="list-style-type: none"> • Balance volume of traffic to CFO road.

FOOTNOTE:

CLASS 3 ROAD

- 30 m ROW
- 8 m top
- 8% adverse
- 10% favorable
- All weather (graveled)

MODIFIED CLASS 3 ROAD

- Same as Class 3 with the following exceptions:
 - 6 m top with pull-outs

Map:
Proposed Road Network

