



**Access Management in British Columbia
Issues and Opportunities**

Special Report

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Cover photo shows the profusion of roads—both forestry and oil and gas roads—in an area of Northeastern BC.

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Executive Summary

There are some 400,000 to 550,000 kilometres of resource roads in BC, used for forestry, oil and gas, mining and commercial and public recreation. The extent of resource roads has increased dramatically over the last two decades, and is expected to grow significantly with the expansion of the oil and gas and mining industries, and the salvage of trees killed by the ongoing mountain pine beetle infestation.

Roads, and the access they create, are one of the major land use impacts in BC, yet access management is not as effective and coordinated as it should be. This report identifies access challenges that need to be resolved to achieve a more effective system of roads, and to reduce conflicts between stakeholders, the public and the environment. There is an opportunity to improve the access management system, provide economic savings and reduce environmental impacts.

Inventory of Resource Roads

BC's resource road system is constantly changing, with new roads constructed and others deactivated, and status and responsibility for road use transferred on a regular basis. There is currently no comprehensive inventory of the number, location and ownership (status) of resource roads.

Non-Status Roads and Deactivated Roads

A significant amount of current road in BC consists of non-status and deactivated roads. There are no legal requirements for any agency to maintain and repair many of these roads, resulting in significant risk both of damage to the environment, and to public safety where these roads are still being used. Government and the public are left with the responsibility to address any environmental damages that result from road failures. The Board's recent report on landslide management identified that landslides are still occurring from old roads, even where deactivation work has been done.

Access Management Planning

Access management planning, and opportunities for public involvement in the location of new resource roads, have been significantly reduced in the last 10 years. The deactivation of existing roads does not require a permit, or any public or other resource user consultation. Even where access management plans are prepared, they are not legally binding. Many of the user conflicts, and environmental impacts, of road access are related to public use of roads to access backcountry area recreational opportunities. Many people want input on decisions to develop new roads, restrict public access, and whether to maintain or deactivate existing roads. The lack of effective access management planning means the public does not have an opportunity to address specific access issues and concerns.

Strategic land and resource plans can provide general guidance on access, but these are not in place for about a quarter of the province's Crown land. Even where strategic land and resource plans have been completed, more detailed sub-regional planning is needed to provide meaningful direction for operational plans. However, this planning has not yet been completed in many areas. The result is that there is no single, consistent process to deal with access management concerns.

FRPA: Government Objectives

A key part of the *Forest and Range Practices Act* (FRPA) framework is legal objectives established by government. In the absence of a government objective for road access, forest stewardship plans do not need to address access issues, or respond to any public or resource industry concerns about access. Access management direction, provided in land use plans, must be established as legal government objectives in FRPA in order to ensure forestry roads are consistent with that direction.

Road Authorization and Maintenance

The current approach to government agency approval of resource roads lacks integration and coordination. Authorization of resource roads can trigger several different obligations and requirements, depending which agency or legislation happens to issue authorization. Since 1999ⁱ, the Board has recommended consolidation of resource road legislation to promote consistency and fairness across resource sectors.

Roads must be maintained for public safety and protection of the environment. However, there is a confusing patchwork of requirements for road maintenance. For the roughly 200,000 to 350,000 kilometres of non-status and deactivated roads, there are no legislated maintenance requirements at all. Differing rules for construction and maintenance of resource roads presents a confusing, and potentially unfair, situation for resource companies, as does the apportionment of maintenance costs among road users.

Sharing Road Costs

One of the biggest concerns raised by industrial users is the sharing of both capital and maintenance road costs. A number of concerns or potential inequities are identified in this report. There is a need to address the shared cost issue in a fair and equitable manner, through provincial direction and local coordination.

Government is working on consolidating the current array of resource road legislation, and addressing maintenance and cost issues equitably for the resource sectors. The Board strongly supports this initiative.

Public Use Restrictions

Government needs to develop coordinated policy on when public use restrictions are needed in sensitive areas. Currently, there is a lack of clarity on when use restrictions should be invoked, under what authority, and by which government agency.

Protection of the Environment

Provisions in FRPA, and in the *Government Actions Regulation*, that ensure protection of the environment do not apply to recreation use or users. As a result, government agencies cannot enforce laws to ensure the environment is not damaged as a result of recreation use. Forestry roads lead to increased recreation use, and can open up sensitive areas to public users. This gap in legislation should be examined and addressed by government.

Off-Road Vehicles

Many of the issues regarding recreational access centre on off-road vehicle use, including all-terrain vehicle, and snowmobile use. Government should support work already underway to improve the management, including the registration and licensing, of off-road vehicles.

Agency Mandates

The 2005 government reorganization created new roles and responsibilities for agencies regarding land use planning, access management, and recreation management. These roles and responsibilities remain unclear, and need to be better communicated to agency staff and the public.

Board Commentary

The anticipated increase in resource roads to address the mountain pine beetle infestation, and to access oil and gas reserves, comes with the opportunity to minimize environmental impacts, achieve cost savings through coordination, and avoid stakeholder and public conflict. However, to take advantage of these opportunities, a number of issues with the current access management system will need to be addressed:

- The number, location and ownership (status) of resource roads in the province are not adequately tracked.
- Sharing of road costs and road use liabilities in a fair and equitable manner needs to be addressed and road users should be consulted.
- Areas requiring recreation access planning to resolve issues need to be identified and prioritized, and adequate resources are necessary so that planning can take place in key areas to secure recreation use opportunities, reduce environmental impacts, and resolve disputes.

- Key access components of strategic land use plans and access plans are not legally binding on all resource developments, thus there is no assurance that these provisions will be implemented and enforced when new developments proceed.
- There are no legal provisions to protect the environment from damage caused by public recreation use.

In addition to the issues identified above, the Board is making two recommendations to address the key access management issues currently facing the province:

1. The Ministry of Forests and Range should proceed expeditiously with the ongoing development of legislation to streamline and integrate the resource road use regulatory framework. The new legislation should address the lack of consultation on creating and deactivating roads.
2. The Ministry of Agriculture and Lands, in consultation with other relevant government agencies, should develop provincial policy on when and how public access restrictions should be imposed on Crown land, including which agency should be responsible for implementation and enforcement.

The Board requests that the Ministries of Forests and Range and Agriculture and Lands advise on progress towards implementing these recommendations by December 31, 2006.

Introduction

Road infrastructure is vital to the economy of British Columbia, particularly resource roads. Resource roads are non-highway roads on provincial Crown land, primarily constructed by industrial users for forest and subsurface resource development (i.e., mining and oil and gas).

Roads built by one industrial user can also benefit other users. For example, roads built by the forest sector can help facilitate mineral exploration and development; roads built by the oil and gas sector can be used for forestry. Resource roads can also:

- facilitate long term forest management activities such as reforestation, stand tending, and fire and pest control efforts;
- support non-industrial commercial interests such as tourism, trapping, and non-timber forest products uses by First Nations and others;
- provide opportunities for the public to reach backcountry areas for non-motorized and motorized recreation use; and
- provide important links to schools and public highways for remote communities.

While resource roads provide benefits, they can also cause significant direct and indirect adverse impacts to forest resources.ⁱⁱ Direct effects of resource roads on water quality and fish habitat, such as landslides, soil erosion, and sedimentation to streams, can be considerably greater than the effects of associated forest harvesting. Permanent roads also reduce the amount of land available for growing trees for timber and wildlife habitat. If not carefully located, roads may adversely affect values such as cultural heritage and wildlife habitat features.

Roads can fragment habitat, increase legal and illegal fishing and hunting, and create disturbance from both traffic and off-road vehicles. Road kills are an important threat to some endangered species such as the Night Snake and American Badger. Other species will avoid roads, resulting in isolated wild populations. Roads can also facilitate improved off-road vehicle access that can damage sensitive ecosystems such as grasslands, wetlands and alpine areas that may be difficult to rehabilitate. Increased motorized and non-motorized recreation can lead to public and commercial use conflicts.

The closure of roads no longer required by the primary user can also significantly affect others who may have relied on the road for industrial or commercial use, to service isolated rural and First Nation communities, or to provide recreational use opportunities. The public generally wants its interests to be considered in access decisions.

Access concerns are often contentious issues in strategic planning, operational planning, and in the approval of new developments.

Most direct effects of forestry roads are addressed in the *Forest and Range Practices Act* (FRPA) through various planning and practice requirements. Over the years, the Board has dealt with a broad spectrum of complaints about road access issues. Complaint topics have included:

- need for coordinated access management planning to reduce environmental impactsⁱⁱⁱ
- access controls to mitigate potential impacts on wildlife^{iv}
- a proposed road's potential effects on mountain caribou^v
- road maintenance and cost sharing^{vi}
- need to clarify the application of section 105 of the Code (now section 58 under FRPA)^{vii} (restricting a recreation use to protect recreation or range resources, or address user conflicts)
- need for access planning to address public interests and backcountry values^{viii}
- concerns about potential impacts of linking road systems^{ix}
- need to manage and establish best practices for backcountry access and recreation in order to reduce impacts to mountain caribou^x
- need for effective enforcement to address unauthorized public recreation trails and facilities^{xi}

A number of Board compliance audits and a special investigation have also encountered deteriorating old roads (pre-1995) that are not being maintained and are a risk to the environment.^{xii}

Inventory of Resource Roads

No one has an accurate estimate of the amount of resource roads in BC. Air photo mapping in the late 1980s identified 387,000 kilometres of resource roads and public highways in the province. About 10 years later, the amount of roads had increased 45 percent in the 40 percent of the province that was re-mapped.^{xiii} There are likely between 600,000 and 700,000 kilometres^{xiv} of roads in BC today (see Table 1), of which 45,000 kilometres are public highways.^{xv}

The Ministry of Forests and Range (MOFR) maintains about 45,000 kilometres of forest service roads, and estimates that about three times that amount are under a road permit to forest licensees.^{xvi} Table 1 provides an estimate of the current amount of resource roads in BC.

Forest Service Road – a road constructed, modified or maintained by the minister under the provisions of the [Forest Act](#) or declared a Forest Service road. Forest Service roads are used to provide access to managed forest land.

Road Permit – an agreement entered into under Part 8 of the [Forest Act](#) to allow for the construction or modification of a forest road to facilitate access to timber planned for harvest.

Table 1: Estimated Length of Roads

Resource roads:	about 400,000 to 550,000 km***
Forest Service Roads	about 45,000 km*
Road Permit roads (by forestry industry)	about 135,000 km**
Other status resource roads	less than 10,000 km**
Non-status roads and deactivated roads	about 200,000 to 350,000 km***
Highways, city and private roads:	about 125,000 to 200,000 km***
Highways	about 45,000 km*
City roads, roads on private land	less than 150,000 km***
TOTAL ROADS	about 600,000 to 700,000 km**

* Good estimate **fair estimate ***very rough estimate

With significant new road building anticipated in the next few years to salvage trees killed by mountain pine beetle, and with expected growth in the oil and gas and mining sectors, substantial increases in the resource road network in BC are expected. About 20,000 to 30,000 kilometres of new resource roads will likely be constructed annually over the next five to ten years. This creates opportunities for resource sectors and individual companies to coordinate their road needs, to reduce both costs and negative impacts of new road developments.

BC's resource road system is constantly changing, with new roads being constructed and other roads being deactivated. Status and responsibility for road use is transferred on a regular basis. Developing and maintaining a current inventory of resource roads is, therefore, a major challenge. Nevertheless, an inventory would support effective road access coordination between resource agencies, industrial and commercial users, and the public. For example, without a current inventory, it may be difficult to track whom, if anyone, has responsibility for

a particular resource road. Coordinated road access planning also requires a reliable road inventory.

The Board has, in audits,^{xvii} encountered problems where forest districts are unable to identify all the roads they are responsible for maintaining, due to lack of a good road inventory. As a result, the Board could not determine if road maintenance obligations were being met, or if all roads were being properly maintained to ensure public safety and environmental protection.

FRPA (under section 86 of the *Forest Planning and Practices Regulation*) does have a requirement for forest licensees to provide the location of roads constructed in their operating areas (as-built roads) in annual reports submitted to MOFR. To help address the concern about unreliable road inventory and requirements for annual reporting, as-built roads are being electronically submitted by licensees for a digital road atlas being developed by the province. The atlas is expected to be part of the Land and Resource Data Warehouse^{xviii} in 2006. The Board is encouraged by these recent efforts as they relate to as-built forest roads. However, FRPA does not address roads built for non-forestry purposes, such as those for mining or oil and gas development. Logically, all roads should be captured in the road inventory, particularly in those regions of the province with substantial numbers of non-forestry roads.

Non-Status Roads and Deactivated Roads

As noted in the previous section, one-third to one-half of the resource roads in BC are likely to be either non-status or deactivated roads. Non-status roads are those that have not been formally deactivated, but are neither managed by a resource agency (like forest service roads), nor by a licensee under authorization (like a road permit). Non-status and deactivated roads may not be passable by motor vehicles or off-road vehicles.

Non-status and deactivated roads can cause significant damage to the environment, and create safety concerns; for example, heavy rainfalls causing a landslide that damages a fish-bearing



Old forestry roads can cause landslides. These old roads were seen during a Forest Practices Board audit.

stream, or a bridge that is close to collapse. The Board's recent report on landslides^{xix} found that a significant number of landslides are still being triggered by roads built prior to the 1995 Forest Practices Code, even though many of these have been deactivated.

MOFR does what it can to remedy damage and address safety concerns, subject to available resources. The ministry does not take responsibility for non-status roads. Court cases related to liability on non-status roads have tended to focus on issues other than ownership of the roads, so the question of liability remains unclear.^{xx}

Access Management Planning

The 1995 *Forest Practices Code of British Columbia Act* (the Code) required licensees to include an access management plan with their forest development plan (FDP), which provided a tool for planning and public consultation on road access issues. Previously, some forest districts engaged in voluntary coordinated access management planning, which produced district plans that addressed access issues. However, the Code was streamlined in 1997, and access management plans were no longer required. Many access management plans were abandoned, as there was no legal requirement to follow them. Others were amalgamated into land and resource management plans, which address a much broader range of resource management issues and provide less detail on access.

Some access issues could still be identified in FDPs, which required new roads and deactivations plans for existing roads to be shown on maps. However, FRPA, which replaced the Code, has no requirement to show the location of new roads in forest stewardship plans. Furthermore, a forest licensee can deactivate an existing road without referral to the district manager, and without any consultation with other road users or with the public. Thus, the opportunity for planning and public involvement in access management issues has been almost eliminated since 1995. The only avenue remaining for the public to influence access management is higher level planning. But for the majority of the province where land use plans have been completed, that avenue is closed until those plans are revisited at some unknown future date.

Strategic Land Use Plans

Strategic land use plans (including regional plans and land and resource management plans, or LRMPs) can provide direction on access management within areas available for resource development. They can also provide a framework for managing public access on Crown land, including the provision of diverse recreational opportunities and the restriction of uses to protect sensitive values or reduce conflict. Proposals for new resource roads in relatively undeveloped areas, with high wilderness and wildlife attributes, can generate considerable controversy in the absence of a strategic land use plan. This can frustrate proponents who require road access to develop their tenure area, and others who may oppose resource development activities prior to a land use decision. In the absence of access management direction, land use decisions may not serve the public interest, or effectively manage and conserve forest resources.

Strategic Land Use Planning - Planning at the regional, sub-regional and, in some cases, local level which results in land use allocation and/or resource management direction.

An example of how protracted the process can be, without strategic land use direction, is the proposed Tulsequah Chief Mine access road in Northwestern BC (see case study #1).

Tenure - The *Forest Act* defines a number of forestry tenures by which the cutting of timber and other user rights to provincial Crown land are assigned (e.g., Forest Licence or Tree Farm Licence). Tenures are also granted for other uses of Crown land, including commercial tourism and recreation.

Strategic land use plans and sustainable resource management plans (SRMPs) are the main tools available for recreation access planning. The Integrated Land Management Bureau is the provincial government agency responsible for land use planning.

Twenty-seven percent of the province has no completed land use plan, and planning is underway in only about half of that area. Where strategic land use plans have been completed, they often provide only general direction, given the wide scope of land and resource issues covered by the plan. Consequently, lower-level strategic planning is often required to address key concerns, including access.

Strategic land use plans provide general direction and guidance to industrial users, to address the indirect effects of resource roads due to public access. Strategic land use plans may also describe desired recreational opportunities for various zones within the plan (e.g., for motorized or non-motorized recreation).

SRMPs provide a framework for lower-level strategic planning. SRMPs can refine and augment the general direction in land use plans, by providing landscape-level objectives that are more site-specific and operationally relevant. For example, case study #2 describes how SRMPs address access-related requirements in the Cariboo-Chilcotin Land Use Plan.

Some land use plans have recommended comprehensive recreation planning (a type of SRMP) to address issues like recreation access. For example, see the Bulkley Recreation Access Management Plan,^{xxi} discussed later in case study #7.

The matters addressed in an SRMP are based on local issues and needs, therefore some SRMPs address access issues while others do not. SRMPs that address access generally do so at the landscape (watershed) level, but in a sub-regional context. This perspective is often necessary to facilitate agreements (and trade-offs) at the landscape level. For example, agreement on public access restrictions in some areas with sensitive values may be supported, if access can be secured elsewhere. The other advantage of a sub-regional context is that it can address potentially large contiguous areas that transcend landscape (watershed) boundaries. An example is consideration of sensitive wildlife or backcountry values, as happened in the Golden Backcountry Recreation Access Plan area (see case study #3).^{xxii}

Some SRMPs are focused on public and commercial recreation access issues, because of user conflicts and potential impacts on sensitive ecosystems and wildlife. For example, various SRMPs in the East Kootenays are addressing road-related public access issues that have long been a source of conflict. Proactively resolving access concerns, through SRMPs, can be considerably less expensive than addressing access conflicts reactively, or dealing with after-the-fact damage to vulnerable ecosystems or species.

Legal implementation of SRMPs that are focused on access issues may require legislation to restrict public use (rather than, or in addition to, government objectives under FRPA). This

highlights a more generic issue with SRMPs. The agency responsible for planning may well not be the agency responsible for implementing or enforcing the plan. This separation can result in lack of enforcement of the plan, and lack of coordination or understanding about how the plan can or should be implemented, monitored or enforced. Unless there is agreement on roles and responsibilities for implementation and enforcement of plans, government agencies are slow to deal with non-compliance. Lack of enforcement can lead to disillusionment with a plan that was developed, with a great deal of effort, by stakeholders.

Case Study #1: Tulsequah Chief Mine Access Road

Mining occurred in the Taku area in Northwestern BC in the 1950s; with access provided by river barge down the Taku River to Juneau, Alaska. The mines closed in 1957 due to low metal prices; however, substantial reserves remained. In 1994, an application to reopen the Tulsequah Chief Mine was received by BC's Environmental Assessment Office (EAO). The proposal required construction of an access road to reach the mine site, because the barge option was no longer feasible. The proposed access road would be a private industrial gravel road running 160 kilometres to connect with existing roads south of Atlin, and with the highway north of the town; this would enable mine ore to be hauled to Skagway, Alaska.

The road proposal was the primary focus of opposition to the mine development, as it would traverse a relatively undeveloped area with high wilderness and wildlife values. The area is located within the traditional territory of the Taku River Tlingit First Nation (TRTFN), and has commercial tenured uses such as trapping and guide outfitting. The concern about the road was less about its use for the mine project itself, but more about cumulative effects associated with opening the area up to additional interests such as forestry, other mining ventures, and recreation (including hunting and fishing).

Given the concerns, and the absence of a strategic land use plan for the area, a Tulsequah Chief Road Advisory Group was created in 1997. The group noted that the proposed road corridor was not within a government approved protected areas strategy (PAS) study area, and therefore likely would not be a protected area. Government has confirmed, in its approval of strategic land use plans, that protected areas are the only Crown lands not available to industrial road access. Therefore, an access road was viewed as an acceptable land use.

In 1998, the provincial government approved the project, but did so in a way that suggested that government had not seriously considered the potential impacts of the new access. The TRTFN appealed the approval and the BC Supreme Court overturned the decision in 2000, directing the province to further consider the concerns of the TRTFN. In 2002, the BC Court of Appeal referred the matter to the relevant ministers for decision. Later that year, the project approval certificate was issued

The proponent received provincial road authorization under the *Mining Right of Way Act*, and was issued a special use permit under the *Forest Act*. However to obtain federal authorization for the road alignment, a Department of Fisheries and Oceans (DFO) review was required by the Canadian Environmental Assessment Agency (CEAA). DFO consulted at length with non-government organizations, US and Alaska agencies, and others. Based on this review, DFO issued a CEAA conclusion that the project could proceed in summer 2005, 11 years after the project was first proposed.

Case Study #2: Cariboo-Chilcotin Sustainable Resource Management Plans

The Cariboo-Chilcotin Land Use Plan (CCLUP) is unique because much of the plan is a legally binding higher level plan. The CCLUP identifies resource development zones and provides resource targets for each zone. The CCLUP states that the maintenance and restriction of access is required to achieve resource targets for timber, mining, fish and wildlife, recreation, and non-timber forest products. Access targets include backcountry recreation, additional permanent road access restrictions for fish and wildlife, and timber harvest and no-harvest areas.

As required by CCLUP, regional access management strategies were completed, which direct more detailed regional access planning, including SRMPs. The regional strategies collectively provide direction to SRMPs and operational plans by interpreting and clarifying the intent of the CCLUP. The regional strategies provide advice to tenure holders when preparing an operational plan, and to the Ministry of Forests and Range when approving operational plans to ensure consistency with the CCLUP.

Eight SRMPs covering the entire CCLUP area are underway. One of the objectives of the SRMPs is to show how CCLUP resource targets can be integrated with each other. Operational plans are more likely to be consistent with the higher level plan if they are consistent with SRMPs, since the SRMPs were designed to achieve higher level plan targets at the sub-regional level.

The Horsefly SRMP, for example, describes key values in 24 backcountry units, and directs that access management plans be prepared so that the values can be appropriately managed and conserved. Access direction in the draft Horsefly SRMP includes:

- no new permanent circle routes more than one kilometre long (with separate entry/exit points) without approval by the Ministry of Agriculture and Lands,
- no roads in no-harvest areas and old growth management areas unless no other practical route exists,
- no permanent roads less than two kilometres from wilderness fisheries lakes, unless no other practical route exists.

Case Study #3: Golden Backcountry Recreation Access Plan

The Kootenay/Boundary Land Use Plan Implementation Strategy (KBLUP-IS) was prepared in 1997. The KBLUP-IS provides geographically specific resource management direction, including access guidelines. The access guidelines incorporate direction for connectivity, grizzly bears, ungulate winter range, mountain caribou, recreation, regional objectives and strategies, particularly with respect to alpine and subalpine areas, and in specific resource management zones. Access management strategies include a tool box of considerations to achieve the access guidelines and objectives in the plan. A higher level plan was prepared, and later revised, for the KBLUP area, but it did not deal with access. The access direction, therefore, remains as non-binding advice for forest operational plans.

The KBLUP-IS recommended strategic lower-level planning for recreation, to ensure continuation of a range of recreational opportunities, and integration with resource development activities.

Three recreational access plans were undertaken in the East Kootenays to address existing and potential user conflicts, and impacts on sensitive environmental values, while providing a diversity of recreational use opportunities. Although the planning was initially motivated by conflicts between public and commercial recreation use, impacts on wildlife, fish and the environment became important concerns. The three initiatives are the:

- Golden Backcountry Recreation Access Plan (GBRAP),
- Cranbrook West Recreation Management Strategy (CWRMS), and the
- Southern Rocky Mountain Management Plan (SRMMP) – recreation access components.

The SRMMP is a comprehensive plan that covers a full range of resource values, including recreational access. The GBRAP and CWRMS are SRMPs with a recreational access focus. Recreational effects of access are considered a recreation issue only, so the plans have not dealt with the indirect effects of industrial access.

The GBRAP reflects the approach taken in the East Kootenays. It was initiated in 1999 and completed in 2002, covering a 900,000 hectare area. This voluntary community- and consensus-based process involved many recreational stakeholders and agencies. GBRAP indicates where public and commercial recreational development can occur, while reducing user conflicts and environmental effects. It provides certainty to tourism and public recreation, while conserving important wildlife habitat for species (such as mountain caribou and grizzly bears). However, GBRAP addresses recreational access only, not industrial access.

The GBRAP reflects the KBLUP-IS, for example, with respect to special resource management zones for areas with high concentrations of regionally significant and sensitive resource values. GBRAP provides recreational access and development direction for each landscape unit (major drainage area). It provides summer and winter recreation direction for both motorized and non-motorized use for roads and areas. About 75 percent of existing roads can be open for summer motorized recreational access and nearly 60 percent of roads can be open for winter motorized recreational access. GBRAP, however, does not guarantee that roads open for recreational access will actually be passable (e.g., lack of funding for road maintenance may preclude this). GBRAP direction for areas means that if a new industrial access road is required, the recreational use of that road will reflect the direction for that area.

Consensus was reached on 90 percent of the plan area. Plan implementation will largely be achieved through voluntary measures. Some legal closures will be done, consistent with stakeholder agreements. Ministerial policy is that the authorization of new commercial recreation tenures must be consistent with the GBRAP.

FRPA: Government Objectives

Even where strategic land use plans and SRMPs provide direction on road access concerns, the direction is not enforceable unless reflected in operational plans and decisions.

FRPA specifies planning and practice requirements for forest licensees, woodlot operators and range tenure holders. A government objective (i.e., one that has legal effect under FRPA) normally triggers a requirement that an operational plan, such as a forest stewardship plan (FSP), provide a measurable or verifiable result or strategy consistent with the objective. FRPA, in the *Forest Planning and Practices Regulation* (FPPR) sets out three sources for government objectives:

1. **Objectives set in regulation** – These are set out in the FPPR itself. They apply province-wide.
2. **Objectives enabled by regulation** – These are objectives created under the *Government Actions Regulation* (GAR). GAR lets various ministers establish objectives for specific values such as lakeshore zones, visual quality, water quality in community watersheds, wildlife habitat in wildlife habitat areas, ungulate winter ranges and fisheries sensitive watersheds. These usually apply locally or regionally.
3. **Land use objectives** – These are set by the Minister of Agriculture and Lands through higher level plan (HLP) orders and regional land use plans. They only apply to specific plan areas.

Therefore, portions of approved strategic plans can be declared as government objectives. However, in the absence of a government objective related to road access, there is no requirement to address road access in an FSP. An FSP need only show forest development units where roads may be developed. While forest development units could be small (something somewhat larger than a cutblock) and thus provide some indication of access development, the practice so far is to designate large forest development units that may encompass entire FSP areas. Such vast forest development units provide no information about existing roads, the approximate location of proposed roads, or deactivation plans, and there is no requirement to do so elsewhere in an FSP, as used to be required under the Code for FDPs.

Under the Code, strategic land use plans provided policy advice and information to the MOFR district manager, who could use this to consider whether an FDP would adequately manage and conserve forest resources before approving the plan. This test does not exist under FRPA, so guidance in strategic plans has no bearing on operational plan approval decisions under FRPA. Further, any public concerns raised about access do not need to be addressed under FRPA, unless tied to an already existing requirement, such as a government objective. This situation is likely to frustrate public review and comment opportunities afforded under FRPA, since public concerns are often related to access.

The Board has consistently recommended that government establish legal objectives in support of the Code. Under FRPA, the need for clear government objectives is even more critical, given the significantly reduced operational plan content requirements, and elimination of the adequately manage and conserve requirement for plan approval.

Road Authorization

The regulations governing resource road authorizations are poorly coordinated. There are many different types of resource roads, and they can be authorized with a variety of associated obligations and requirements. Currently, there is no process for industrial road users to coordinate road access to meet overall access needs.

Industrial users use a one-window provincial government service to ask the appropriate resource agency for authority to construct, use, maintain and deactivate roads. However, the one-window approach lacks integration. For example, one industrial user may be unaware of the access needs of another user in the same area. Therefore, coordination will not occur, even though it could improve efficiencies for both parties. Uncoordinated access decisions may lead to inefficiencies, conflicts among industrial users, and environmental impacts that might have been avoided with improved communication.

A similar problem occurs where various resource sectors operate in the same area, such as forestry and oil and gas in Northeastern BC (see case study #4). This could also be an issue where the allowable annual cut has been substantially increased to address the mountain pine beetle epidemic, resulting in a proliferation of replaceable and non-replaceable forest licences.

As shown on Table 2 (with footnotes) at least four agencies can authorize resource roads:

- Ministry of Forests and Range (MOFR),
- Oil and Gas Commission (OGC),
- Ministry of Energy, Mines and Petroleum Resources (MEMPR), and
- Ministry of Agriculture and Lands (MOAL).

Road authorization by these agencies occurs under different Acts and a number of associated regulations, using many different authorities (permits, leases, etc), with different practice requirements.

The variety of authorization mechanisms for resource roads causes confusion and inconsistency in requirements that appear to be inequitable. For example:

- some primary industrial road users must obtain authorization to use and maintain a resource road, and are obligated to deactivate the road after use; others can use and maintain a road without authorization, and without an obligation to deactivate;
- some primary road users are subject to more stringent practice requirements than other primary road users; and
- some secondary road users require government authorization for use of resource roads, while others do not.

There is a need to streamline and rationalize the existing complex and confusing regulatory framework. In an audit of oil and gas activities in the Fort Nelson Forest District, the Board identified this problem and made a recommendation to OGC to review and rationalize the road permitting process for oil and gas roads.^{xxiii} That review has not been completed.

Table 2: Main Types of Resource Roads*

Type of Resource Road	Maintenance obligations**	Approves	Legislation	Requirements***
Forest Service Roads Road Use Permit	Forest use permit holder	MOFR	<i>Forest Act</i>	FRPA
Forest Service Roads No Road Use Permit	MOFR	MOFR.	<i>Forest Act</i>	FRPA
Road Permit	Forest use permit holder	MOFR	<i>Forest Act</i>	FRPA
Special Use Permit (SUP)	Non forest use permit holder (e.g. access to mineral claim)	MEMPR approves road; MOFR issues SUP	Forest Practices Code	FRPA
Road on mineral claim	Mineral claim holder	MEMPR	<i>Mines Act</i>	<i>Mines Act – Mineral Exploration Code</i>
Works Permit, or Statutory Right of Way, or License of Occupation	Tenure holder	MOAL	<i>Land Act</i>	Tenure conditions
Petroleum Development Road	Oil and gas permit holder	OGC	<i>Petroleum and Natural Gas Act (PNGA)</i>	FRPA
“Well lease” roads	Authorization for construction only (see Non-Status Roads below)	OGC	PNGA (previously also under <i>Pipeline Act</i> , or <i>Land Act</i>)	FRPA for PNGA roads
Non-Status Roads Industrial use	Oil and gas “well lease” holder	None for road maintenance	N/A	FRPA if in Provincial forests
Non-Status Roads No Industrial use	None. May be used by public or commercial user, or deactivated	N/A	N/A	N/A

* There are numerous other ways a road may be authorized. For example, roads may also be authorized by MOFR in a cutting permit, woodlot license, and a timber sale licence that does not provide for a cutting permit. Other Acts that can authorize roads include *Geothermal Resources Act*, *Coal Act*, *Mineral Tenure Act*, and *Mining Right of Way Act*.

**Secondary industrial or commercial users may share in costs of maintaining (and in some cases constructing) the road by the primary user.

****Highway (Industrial) Act* and *Vehicular Traffic on Industrial Roads Regulation* also applies with focus on vehicle standards and traffic rules for industrial use, but also addresses road and bridge safety.

One potential rationalization approach, which would require legislative change, is the use of a generic road permit regardless of resource use. The advantages of a generic road permit are that it:

- could be more easily transferred from one industrial user to another (e.g., from oil and gas sector to forest sector);
- would harmonize and transfer practices requirements;
- would harmonize and clarify shared cost issues with respect to maintenance and construction with secondary road users;
- would streamline the current complex array of authorizations currently in effect, and be far less confusing to agencies, industrial users and the public; and
- should improve local access coordination by various resource sectors.

A generic road permit could still be issued by various authorizing agencies, to be consistent with the one-window approach to government (e.g., OGC issues road permits to oil and gas sector, while MOFR issues road permits to forest industry).

With provincial direction on streamlining the regulatory framework, local coordination would be improved on issues such as:

- identifying central access corridors;
- planning of deactivation;
- transferring road authorizations among industrial users;
- referring new road development plans to other industrial users;
- controlling access to protect sensitive values; and
- addressing maintenance of roads for public, commercial and residential use.

The Board is aware that MOFR is working with other resource agencies to develop legislation that would better integrate the regulatory framework for resource roads. The Board encourages MOFR to proceed with this initiative as quickly as possible.

Case Study #4: Cumulative Effects of Road Access in Northeastern BC

Access in Northeastern BC has changed substantially due to resource development activities including forestry, oil and gas, ranching, agriculture, tourism and mining. A rapidly increasing network of resource roads and other linear developments, such as seismic lines, railways, pipelines and power lines, have supported economic growth in these resource sectors. The overlapping development activities also result in cumulative impacts on environmental values.

Air photos taken 60 years ago show the forest was mostly unaffected by roads and other linear access features. A study of air photos taken in 1991 recorded 1.3 million kilometres of linear disturbances, with 745 remaining patches of forest, greater than 900 hectares in size, that were free of linear disturbances. Since 1991, the amount of road is estimated to have increased by up to 60 percent.

Recognizing the need for improved coordination, the provincial government established an interagency and multi-stakeholder access management initiative in the area in 1994. The initiative reviewed legislative and administrative frameworks concerning access; described physical access control measures; and reviewed experiences in coordinated access management planning elsewhere in BC.

Completed Land and Resource Management Plans (LRMPs) in northeastern BC gave special management or protected status to a significant area of the Rocky Mountains and Foothills (such as the Muskwa-Kechika area), while providing enhanced or general resource management zone status for the plateaus and plains. The LRMPs provide general access direction in the plateaus and plains; however, they have no legal force. When the LRMP was being considered in the mid-90's, the participants could not anticipate the increased level of oil and gas activity that subsequently ensued. Consequently, access guidance in the LRMPs may not be effective for current coordinated access management.

Recently, First Nations have drawn attention to adverse cumulative effects of increased road access and development (e.g., on fish and wildlife) that may affect their ability to exercise treaty rights. In response, an SRMP in the Peace-Moberly area is being initiated, with coordinated access planning expected to be a key component.

Sharing Road Costs

Resource access roads are expensive to build, maintain and deactivate. Industrial users are very concerned about the equitable sharing of these road costs. Cost-sharing is not required on all roads developed or maintained by a primary road user and a number of concerns and potential inequities have been raised. The following section provides some examples of cost sharing concerns.

Forest Roads

MOFR designates the primary road user as the maintainer of the road. The road maintainer is responsible (liable) for achieving planning and practice requirements under FRPA. A secondary industrial user can use the road, but is required to share in the cost of road maintenance. Development costs are not shared because licensees receive a stumpage allowance for those costs.

Stumpage - is the fee that individuals and firms are required to pay to the government when they harvest Crown timber in British Columbia. Stumpage is determined through a complex appraisal of each stand or area of trees that will be harvested for a given timber mark. A stumpage rate (\$ per m3) is determined and applied to the volume of timber that is cut (m3). Invoices are then sent to individuals or firms.

The Board investigated a complaint about establishing shared maintenance costs, from the perspective of small operators competing for BC Timber Sales' (BCTS) bids.^{xxiv} The Board recommended that shared costs be more fairly determined, and ideally be specified by BCTS in the proposed timber sale. Major licensees are also concerned about the issue. Small operators who may be secondary road users are not required to have a road cost agreement prior to development. They can complete their activities while the issue remains unresolved. Both major licensees and small operators have expressed concern that the current process for arbitrating disputes, under the *Commercial Arbitration Act*, is too cumbersome.

Oil and Gas Roads

Unlike forest licensees, oil and gas companies that construct roads are normally not allowed a royalty credit for these costs. They need to obtain a *Land Act* authorization for use of aggregate and are charged for this use. As a consequence, oil and gas companies that hold a petroleum development road (PDR) permit can, under the *Petroleum and Natural Gas Act*, charge part of road construction costs to secondary industrial road users.

PDRs to producing well sites are generally built to a higher (and therefore more expensive) standard than forest roads. If a forest licensee chooses to use a PDR, it could incur high shared costs of constructing a road built to a standard higher than the licensee requires. If the licensee chooses to build its own road to a lower standard, the cost is reduced. However, there are

environmental impacts from a second road. This issue is a particular concern in northeast BC where the two industries commonly operate together.

Another complex situation may arise when an oil and gas company receives authorization to construct an exploration road, which can be built to a much lower standard than a forestry road. The authorization is only for the construction of the road—not its use or maintenance. After such a road is constructed, it is used by an oil and gas company as a non-status road. If a forest licensee wishes to use the road, it must obtain a road permit under the *Forest Act*, which designates the licensee as the maintainer of the road. That means that the licensee not only has to negotiate shared maintenance costs with the road builder (who in fact may be the real primary user), but also has to take on legal liabilities and obligations for inspection, maintenance and deactivation under FRPA.

Other issues arise when substantial road upgrading is required for both industrial and public safety. Who should pay for such an upgrade? Forest licensees believe that stumpage allowances don't appropriately reflect the costs of needed upgrades to roads.

Non-Industrial Use of Roads

The primary industrial road user is normally responsible for maintaining a resource road, including many forest service roads (FSRs). Sometimes, high levels of public and commercial use can entail substantial maintenance costs and obligations for the primary user. Legislation typically prohibits charging non-industrial users for road use. This can create unfairness, especially when a primary industrial user needs to continue using the road, but remains a minor user compared to public or commercial users.

Under FRPA, there is an incentive for licensees to deactivate roads that are no longer needed for industrial use—deactivation reduces their obligations. However, the road may continue to be in demand for important non-industrial reasons. MOFR can require that a road no longer needed for forest industrial use not be deactivated, by declaring it a forest service road. However, the ministry then takes on the obligations and costs. Government recently created a new wilderness road standard that significantly reduces maintenance costs (relative to an industrial use standard), but that standard does not ensure maintenance of access because there is no requirement to repair roads that are damaged by natural events.

There are also no incentives for industry to maintain, for the broader public interest, roads that it no longer requires. Further, there is no process to determine which roads should be kept open in the public interest. Consequently, access management decisions are often reactive, and access maintenance involves cobbling together disparate funding sources.

The overall approach to sharing road costs and road use liabilities needs to be carefully reviewed and revised by road permitting agencies. The Board understands this will be part of the consolidated resource road legislation mentioned earlier.

Ultimately, any method for sharing road costs has to be implemented at an operational level, consistent with provincial direction. One approach that holds promise is the formation of local committees such as the Quesnel Road Users Committee (QRUC),^{xxv} which was formed specifically to address numerous ongoing disputes related to the sharing of road costs (case study #5).

Case Study #5: Quesnel Road Users Committee

Disputes related to the sharing of road maintenance costs in the Quesnel Forest District led to the development of Quesnel Road Users Committee (QRUC). These disputes arose in part because of the mountain pine beetle epidemic in the 1980's, resulting in a number of industrial users sharing roads in order to harvest beetle-killed pine.

All industrial road users in the Quesnel Forest District are required to contribute towards the maintenance of the road systems they use. The QRUC strives to ensure that road maintenance costs are shared equitably by all road users, and it is district policy that industrial road users must enter into a road use agreement with QRUC. All major licensees and MOFR, as well as BCTS, are represented on the QRUC.

QRUC works as follows:

- Members forecast volumes for summer/winter hauling seasons (tonnes).
- Historical costs are used to forecast cost/tonne hauled.
- Members are assessed forecasted dollars per season.
- BCTS/woodlot licensees either pay an upfront assessment or a hold back is arranged at the receiving mill with the mill covering this cost.
- Bills are coded by road section.
- Costs are reconciled when all volumes and costs in that season are reported.

All BCTS sales are advertised with a proviso that a QRUC agreement is a condition of sale. The BCTS operator must sign a QRUC form that authorizes the scale site to hold back maintenance funds.

District road maps are submitted by members and kept up-to-date by a consultant. Roads are numbered and broken into sections. Through a maintenance protocol:

- sharing of costs for structural maintenance is based on 3-year average of weights hauled.
- principal contacts for each road section are agreed to at start of season.
- maintenance contractors are approved by members for each section at start of season.
- the level of maintenance is agreed to by shared users.

The QRUC reports several advantages with the process including:

- systematic and auditable sharing of costs by all industrial user;
- fostering of a team approach to maintenance; and
- sharing of information in a proactive and positive manner via monthly meetings.

The QRUC reports no disadvantages other than the need for members to be involved and attend meetings. The QRUC has been in place for many years, and is working to the satisfaction of both the forest companies and MOFR. This model is a useful example of how to effectively coordinate the sharing of road costs, and address other road use issues, at the local level.

Public Use Restrictions

Voluntary Use Restrictions

Some agreements on public recreation access restrictions can be effectively implemented through voluntary measures. As communication about the agreement improves over time, and the rationale for restrictions is better understood, compliance with voluntary restrictions should improve.

Regulatory Use Restrictions

For other areas, the only effective way to address environmental impacts, or user conflicts, is to invoke regulatory restrictions with appropriate enforcement.

Several overlapping laws and regulations to restrict recreational access are described in Table 3. Yet, there has been no clarity or direction about which tool should be applied, by what agency, under what circumstance. This issue has been festering for a number of years, and can frustrate planning processes where a regulatory approach may be needed, such as described in case study #6 in the Valemount/Blue River area.^{xxvi}

Public access restrictions are rarely popular and can be difficult to enforce. The problem with overlapping enabling authority is that, in many cases, no agency chooses to tackle the challenge (particularly with limited resources), preferring that another agency take the lead instead. This not only results in a lack of clarity with respect to agency roles and responsibilities, but can also be an excuse for inaction where restrictions may be needed most.

Table 3: Legislative Tools that can Restrict Public Access

Legislative authority to restrict public access	How it can be applied and agency responsibility
<i>Land Act</i> section 66	The Lieutenant Governor in Council may, by regulation, prohibit a specific use of Crown land in a designated area. The Ministry of Agriculture and Lands oversees the <i>Land Act</i> .
FRPA section 58 (formerly FPC section 105)	The Minister of Forests and Range may restrict or prohibit a recreation use if needed to protect recreation or range resources, or address user conflicts. This authority is being transferred to the Minister of Tourism, Sports and the Arts.
<i>Wildlife Act</i> section 109	The Minister of Environment may, by regulation, prohibit or restrict public access for purpose of wildlife management
<i>Motor Vehicle (All Terrain) Act</i> section 7	The Lieutenant Governor in Council may make regulations respecting the operation or prohibition of all terrain vehicles. Only snowmobiles are recognized, by regulation, as an all terrain vehicle under this Act. The Ministry of Tourism, Sports and the Arts now oversees this Act.

The Bulkley Recreation Access Management Plan, profiled in case study #7, illustrates the need for an effective dispute resolution process for contentious areas, where consensus can not be readily achieved. The Board has investigated five complaints in this plan area, and repeatedly recommended that policy direction be provided on the issue of public use restrictions.

A number of issues related to public access restrictions should be addressed collectively by the various agencies involved (as noted in Table 3) including:

- the circumstances that might prompt the need for a regulatory use restriction;
- which legislative tool would be used;
- dispute resolution mechanisms;
- how agencies will work with stakeholders to help implement a regulatory use restriction effectively (for example, through public education, communication and signage); and
- compliance and enforcement.

Case Study #6: Valemount/Blue River Winter Recreation SRMP

The communities of Valemount and Blue River offer outstanding winter recreation opportunities that provide substantial economic benefits. Commercial recreation heli-ski operators attract clients worldwide, while snowmobiling supports resident recreational use and attracts a large number of tourists, particularly from Alberta. The area supports local and non-resident backcountry skiing and has the potential for growth. The area also provides critical habitat to mountain caribou—a species-at-risk.

Commercial recreation activities are regulated and restricted by tenure to minimize effects on wildlife and other users. In contrast, snowmobiling has been largely unregulated and unrestricted. Snowmobiling in some areas can adversely impact critical areas used by mountain caribou, key areas tenured for heli-skiing, and areas important to backcountry skiers. Tenured heli-ski areas do not provide exclusive use, and can be significantly affected by snowmobile activities. Snowmobile access to backcountry areas is largely provided by unplowed resource roads.

The conflicts in the area have been brewing for about 10 years with no successful resolution. MOFR developed a trail use agreement with the Valemount Area Trails Society, in an attempt to reduce conflicts in critical mountain caribou areas and key areas used for commercial heli-skiing. The agreement identified areas closed to snowmobiling, but was not entirely effective. A few snowmobile users ignored the voluntary closures, and that led to other snowmobile users also not honoring the agreement. There was no consistently effective way to enforce the agreement on an annual and site-specific basis.

In response, an SRMP process, focused on resolving the winter recreation use conflicts, was undertaken for the area. The SRMP identifies areas for snowmobiling and heli-skiing and closes areas to snowmobiling to protect mountain caribou. Stakeholder negotiations and development of the SRMP fostered:

- increased cooperation between recreation user groups;
- the continued use of snow patrols to provide education to snowmobilers; and
- the development of a revised local organization, the Valemount and Area Recreation Development Association (VARDA), to assist in locally managing winter recreation.

The Ministry of Agriculture and Lands believes regulatory area closures, with effective enforcement, are required to implement the SRMP. A challenge during the planning process was choosing which legislative tools would be used to implement area closures (i.e., FRPA, the *Wildlife Act*, the *Motor Vehicle (ATV) Act* or the *Land Act*). Effective enforcement will require additional funding for the Ministry of Environment, which has the authority to enforce vehicle closures under the *Wildlife Act* (e.g. for mountain caribou) and FRPA.

In sum, the SRMP process:

- has improved cooperation between snowmobilers and the commercial heli-ski operators,
- is leveraging the benefits of non-government snow patrols,
- has provided clear spatial zoning of winter recreation use,
- is fostering a cooperative approach to education and enforcement with VARDA, snow patrols and agencies, and
- will help to establish effective regulatory deterrents and enforcement, to address closure violations.

Case Study #7: Bulkley Recreation Access Management Plan

Bulkley LRMP

The 760,000 hectare Bulkley LRMP was prepared by the Bulkley Valley Community Resources Board and an interagency planning team in 1998. The consensus management direction for access included:

- discouraging circular routes and new access connections to adjacent districts, due to potential problems such as hunting pressure and difficulties in enforcing hunting regulations;
- managing sensitive terrain (e.g. alpine and sub alpine areas, sensitive wetland and designated recreational trails) by:
 - restricting all-terrain vehicles in sensitive terrain to identified hard surface roads and trails only
 - deactivating roads to minimize off-road vehicle damage to fragile ecosystems where necessary
 - providing a range of opportunities from no access to full access to lakes
- direction that a recreational access management plan (RAMP) be undertaken by MOFR, that allocates motorized and non-motorized access, for both on- and off-road vehicles, to minimize impacts on fish, wildlife and other environmental resources and to reduce user conflicts.

The LRMP provides access-related objectives and specific direction for most resource management zones at the planning unit or sub-unit level. For example, in the Barbeau Creek special management zone sub-unit, objectives include maintaining wilderness recreation opportunities. Specific direction includes minimizing and controlling access near goat habitat, preparing deactivation plans for any approved access, and ensuring remote lakes will remain without public road access.

The Bulkley LRMP higher level plan gives legal effect to objectives for special management zones, and for various resource values throughout the planning area.

Bulkley RAMP

The Bulkley RAMP was completed by MOFR in 1997, as recommended in the LRMP. Following several workshops and negotiations with public and commercial recreation user groups, consensus was reached for nearly all of the planning area. Summer and winter maps showed areas zoned for motorized use, non-motorized use and "future process" areas (e.g., in protected areas and some special management zones where an access management plan was recommended in the LRMP).

Three unresolved winter areas were also identified in the RAMP, including the Harold Price cabin meadow area that is highly valued by motorized and non-motorized user groups. There was no agreement on a dispute resolution process, which led to several conflicts in the unresolved areas. Complaints were lodged with the Board that led to three investigations.^{xxvii} The Board recommended that MOFR develop policies on the use of recreational closures under section 105 of the Code (now section 58 of FRPA) to guide district managers, and urged government and the Smithers community to resolve the conflicts in remaining contentious areas.

Two of three unresolved areas have now been addressed through agreements reached with user groups. A future process has also been completed for one of the areas also identified in the RAMP.

The RAMP recommended recreation closures be implemented in high risk, environmentally sensitive areas where protection of the recreation resource is required. This included four areas where off-road summer motorized use could cause significant damage. The Sinclair Mountain area was not one of these four areas (see case study #8).

Protection of the Environment



ATV use of an unauthorized trail has caused rutting on Sinclair Mountain near Smithers, BC.

FRPA prohibits unauthorized timber harvesting (section 52), unauthorized trail or recreation facility construction (section 57), and unauthorized construction or occupation of a building or other structure (section 54). If authorized, MOFR also has the power to impose conditions (section 112) and to enter into management agreements (section 118) with the parties who plan to undertake these activities. These provisions help protect the environment from public access impacts associated with recreation development activities.

As noted earlier, MOFR can restrict or prohibit recreation activities to protect recreation or range resources, or address user conflicts in specific areas under section 58 of FRPA. Provisions in other laws (see Table 3), also enable government to restrict public use where necessary.

The Board noted in a recent complaint investigation on Sinclair Mountain (see case study #8), however, that the general provisions under section 46 of FRPA to protect the environment, do not apply to public recreation use. As a consequence, in the absence of a specific public use restriction, recreation use damage to the environment does not contravene provisions in FRPA.

As a result, responsible recreation users, conservationists and resource agency staff have cited examples where irresponsible recreational users have caused considerable damage to the environment, were reported to enforcement officials, yet the person reporting the offence was told that there are no laws available for enforcement officials to use.^{xxviii}

Case Study 8#: Sinclair Mountain

The 1997 Bulkley Recreation Access Management Plan or RAMP (see Case Study #7) provides direction on summer, winter, motorized and non-motorized recreation use in the Bulkley LRMP area, which is located within the Skeena Stikine Forest District. Sinclair Mountain is in the Sinclair Range area southwest of Smithers. The RAMP direction for Sinclair Range is to provide for motorized winter recreation (e.g., snowmobiling), and non-motorized summer recreation (e.g., hiking) where motorized summer use is not allowed (e.g., ATVs).

Some time before July 1999, an ATV trail was cleared to access Sinclair Mountain. In 2000, a small cabin was built in the sub-alpine near the trail. Since its construction, the cabin and trail have been used in both summer and winter. Repeated summer ATV use of the trail has caused rutting. In addition, ATVs have been using the trail to reach the alpine. As a result, sensitive alpine vegetation is now marred by ruts and tracks. A similar problem has occurred in other areas within the forest district.

In 2004, the Board investigated a complaint about the unauthorized cabin and ATV trail. The Board concluded that the initial construction and use of the cabin and trail, and the current use of the cabin, did not comply with the Code or FRPA. The Board also concluded that government enforcement was inappropriate because MOFR did not undertake measures to restrict use of the trail or cabin, or to reduce the risk of further infractions.

The Board also pointed out gaps in FRPA. ATV damage in the alpine does not constitute an infraction under FRPA. Also, general provisions to protect the environment under FRPA do not apply to recreation activities. Nevertheless, MOFR can protect recreation and range resources in specific areas through an order by the minister under section 58 of FRPA, but these actions have not been taken for Sinclair Mountain.

Given that trail and cabin currently exist, the Board noted that motorized ATV use of the trail and cabin in the summer is inconsistent with the direction in RAMP. However, motorized snowmobile use in the winter is allowed under RAMP, so use of the trail and cabin by snowmobilers could be appropriate. The Board therefore recommended that the Forest District and the Ministry of Agriculture and Lands decide whether the cabin should be removed or not, and if it remains, that use be authorized consistent with the RAMP and the LRMP. The Board's other recommendations included that ATV use in areas designated as summer non-motorized use in the RAMP be prohibited though use of section 58 of FRPA.

The district has since tenured the cabin for winter use, deactivated the trail, and is planning to encourage voluntary compliance with the prohibition on motorized summer access, before considering resorting to section 58 orders under FRPA.

Off-Road Vehicles

Many of the issues regarding recreational access center on off-road vehicle (ORV) use, including non-winter all-terrain vehicle (ATV) and winter snowmobile use. ORV recreation use can penetrate deep into otherwise remote backcountry areas. ATVs can damage sensitive ecosystems like grasslands, wetlands and alpine areas, disperse invasive plants, harass wildlife and livestock, and disturb non-motorized users who value quiet or solitude (see case study #7). Snowmobiles have less impact on the ground, but can disturb wildlife during critical winter months (a particular concern with species-at-risk like mountain caribou), backcountry skiers, and some commercial winter recreation activities such as heli-skiing.

Registration and licensing of ORVs (which is not currently required in BC) is important for a variety of reasons including vehicle use safety, theft prevention, improved management and communication. These reforms would facilitate enforcement of infractions such as violations of regulatory use restrictions. With effective registration and licensing, irresponsible users who ignore restricted areas can be more readily identified and fined. It is extremely difficult to identify riders on unmarked ORVs for enforcement purposes.

The ORV Coalition^{xxix} expects to provide government with recommendations for improving legislation and management of ORVs, including registration and licensing.

Agency Mandates

Effectively managing public recreation access requires clearly defined roles and responsibilities regarding outdoor recreation management on Crown lands. Provincial government roles were fragmented in several resource agencies (before the government re-organization of June 2005). As a consequence, the public, stakeholders and agency staff were frequently confused about agency roles and responsibilities in outdoor recreation.

The new Ministry of Tourism, Sports and the Arts (MSTA) consolidates many previously fragmented responsibilities in public and commercial recreation (see Table 4). This should help clarify which ministry is responsible for addressing public access issues.

Given government re-organization, the new roles and responsibilities of agencies in recreation and tourism need to be clearly communicated to agency staff and the public. Improved coordination among the agencies that still have recreation and tourism responsibilities is still needed. Coordination would help with respect to: legislation, policy, and compliance and enforcement for regulatory use restrictions; damage to the environment; ORV registration and licensing; and unauthorized trails and facilities.

Table 4: Expected Agency Roles in Outdoor Recreation and Tourism

Agency	Examples of expected outdoor recreation and tourism role
MSTA	<ul style="list-style-type: none"> • Authorizing public recreation facilities and trails (section 57 FRPA) • Managing forest recreation sites and trails (section 56 FRPA) • Ability to enter into public recreation management agreements (section 118 FRPA) • Can regulate recreation use to protect recreation or range values, or address user conflicts (section 58 FRPA) • ATVs and snowmobile legislation (i.e. <i>Motor Vehicle (ATV) Act</i>) • Tenuring and managing commercial recreation use and facilities (<i>Land Act</i>) • Heritage sites and trails under the <i>Heritage Conservation Act</i> • Tourism strategy • Resorts and alpine ski development • Tourism BC who market tourism and outdoor recreation opportunities
MOE	<ul style="list-style-type: none"> • Parks and protected areas management (e.g., under <i>Parks Act</i>) • Regulating fishing, hunting, guide outfitting and angling guides • Regulating recreation for purposes of wildlife management under <i>Wildlife Act</i> • Establishing wildlife guidelines for recreation
MOAL	<ul style="list-style-type: none"> • Land use planning including recreation access planning • Can regulate recreation use under <i>Land Act</i> • Designating scenic areas under FRPA • Establishing land use objectives for recreation and tourism that need to be addressed in forest and range operational plans under FRPA
MOFR	<ul style="list-style-type: none"> • Establishing visual quality objectives (VQOs) in scenic areas • Establishing lakeshore management zones and objectives

Conclusions

Access management is a significant issue for many industrial road users and for recreational users and the public. A number of issues and barriers need to be resolved to guide development of new roads while minimizing environmental impacts, costs to industrial users and conflicts among stakeholders.

Inventory of Resource Roads

BC's resource road system is constantly changing, with new roads constructed and others deactivated, and status and responsibility for road use transferred on a regular basis. There is currently no comprehensive inventory of the number, location and ownership (status) of resource roads.

Non-Status Roads and Deactivated Roads

A significant amount of current road in BC consists of non-status and deactivated roads. There are no legal requirements for any agency to maintain and repair many of these roads, resulting in significant risk both of damage to the environment, and to public safety where these roads are still being used. Government and the public are left with the responsibility to address any environmental damages that result from road failures. The Board's recent report on landslide management identified that landslides are still occurring from old roads, even where deactivation work has been done.

Access Management Planning

Access management planning, and opportunities for public involvement in the location of new resource roads, have been significantly reduced in the last 10 years. The deactivation of existing roads does not require a permit, or any public or other resource user consultation. Even where access management plans are prepared, they are not legally binding. Many of the user conflicts, and environmental impacts, of road access are related to public use of roads to access backcountry area recreational opportunities. Many people want input on decisions to develop new roads, restrict public access, and whether to maintain or deactivate existing roads. The lack of effective access management planning means the public does not have an opportunity to address specific access issues and concerns.

Strategic land and resource plans can provide general guidance on access, but these are not in place for about a quarter of the province's Crown land. Even where strategic land and resource plans have been completed, more detailed sub-regional planning is needed to provide meaningful direction for operational plans. However, this planning has not yet been completed in many areas. The result is that there is no single, consistent process to deal with access management concerns.

FRPA: Government Objectives

A key part of the FRPA framework is legal objectives established by government. In the absence of a government objective for road access, forest stewardship plans do not need to address access issues, or respond to any public or resource industry concerns about access. Access management direction provided in land use plans will need to be established as legal government objectives in FRPA to ensure forestry roads are consistent with that direction.

Road Authorization and Maintenance

The current approach to government agency approval of resource roads lacks integration and coordination. Authorization of resource roads can trigger several different obligations and requirements, depending which agency or legislation happens to issue authorization. Since 1999^{xxx}, the Board has recommended consolidation of resource road legislation to promote consistency and fairness across resource sectors.

Roads must be maintained for public safety and protection of the environment. However, there is a confusing patchwork of requirements for road maintenance. For the roughly 200,000 to 350,000 kilometres of non-status and deactivated roads, there are no legislated maintenance requirements at all. Differing rules for construction and maintenance of resource roads presents a confusing, and potentially unfair, situation for resource companies, as does the apportionment of maintenance costs among road users.

Sharing Road Costs

One of the biggest concerns raised by industrial users is the sharing of both capital and maintenance road costs. A number of concerns or potential inequities are identified in this report. There is a need to address the shared cost issue in a fair and equitable manner, through provincial direction and local coordination.

Government is working on consolidating the current array of resource road legislation, and addressing maintenance and cost issues equitably for the resource sectors. The Board strongly supports this initiative.

Public Use Restrictions

Government needs to develop coordinated policy on when public use restrictions are needed in sensitive areas. Currently, there is a lack of clarity on when use restrictions should be invoked, under what authority, and by which government agency.

Protection of the Environment

Provisions in FRPA, and in the *Government Actions Regulation*, that ensure protection of the environment do not apply to recreation use or users. As a result, government agencies cannot enforce laws to ensure the environment is not damaged as a result of recreation use. Forestry roads lead to increased recreation use, and can open up sensitive areas to public users. This gap in legislation should be examined and addressed by government.

Off-Road Vehicles

Many of the issues regarding recreational access centre on off-road vehicle use, including all-terrain vehicle, and snowmobile use. Government should support work already underway to improve the management, including the registration and licensing, of off-road vehicles.

Agency Mandates

The 2005 government reorganization created new roles and responsibilities for agencies regarding land use planning, access management, and recreation management. These roles and responsibilities remain unclear, and need to be better communicated to agency staff and the public.

Board Commentary

The anticipated increase in resource roads to address the mountain pine beetle infestation, and to access oil and gas reserves, comes with the opportunity to minimize environmental impacts, achieve cost savings through coordination, and avoid stakeholder and public conflict. However, to take advantage of these opportunities, a number of issues with the current access management system will need to be addressed:

- The number, location and ownership (status) of resource roads in the province are not adequately tracked.
- Sharing of road costs and road use liabilities in a fair and equitable manner needs to be addressed and road users should be consulted.
- Areas requiring recreation access planning to resolve issues need to be identified and prioritized, and adequate resources are necessary so that planning can take place in key areas to secure recreation use opportunities, reduce environmental impacts, and resolve disputes.
- Key access components of strategic land use plans and access plans are not legally binding on all resource developments, thus there is no assurance that these provisions will be implemented and enforced when new developments proceed.
- There are no legal provisions to protect the environment from damage caused by public recreation use.

Recommendations

In addition to the issues identified above, the Board is making two recommendations to address the key access management issues currently facing the province:

1. The Ministry of Forests and Range should proceed expeditiously with the ongoing development of legislation to streamline and integrate the resource road use regulatory framework. The new legislation should address the lack of consultation on creating and deactivating roads.
2. The Ministry of Agriculture and Lands, in consultation with other relevant government agencies, should develop provincial policy on when and how public access restrictions should be imposed on Crown land, including which agency should be responsible for implementation and enforcement.

The Board requests that the Ministries of Forests and Range and Agriculture and Lands advise on progress towards implementing these recommendations by December 31, 2006.

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- ⁱ <http://www.fpb.gov.bc.ca/COMPLAINTS/irc13/irc13s.htm>.
- ⁱⁱ For a synthesis of information on road access effects see:
- Hamilton, D. and S. Wilson. 2001. *Access Management in British Columbia: A Provincial Overview*. Prepared for Ministry of Environment, Lands and Parks. [http://wlapwww.gov.bc.ca/habitat/AccessReport\(v6\).pdf](http://wlapwww.gov.bc.ca/habitat/AccessReport(v6).pdf)
 - Gucinski et al. 2001. *Forest Roads: A Synthesis of Scientific Information*. USDA Forest Service Gen. Tech. Report PNW-GTR-509. <http://www.fs.fed.us/pnw/pubs/gtr509.pdf>
- ⁱⁱⁱ <http://www.fpb.gov.bc.ca/complaints/irc68/IRC68s.htm>
- ^{iv} <http://www.fpb.gov.bc.ca/COMPLAINTS/irc60/IRC60s.htm>
- ^v <http://www.fpb.gov.bc.ca/special/investigations/sir07/sir07.pdf>
- ^{vi} <http://www.fpb.gov.bc.ca/complaints/irc13/irc13s.htm> and <http://www.fpb.gov.bc.ca/complaints/irc97s.htm>
- ^{vii} <http://www.fpb.gov.bc.ca/complaints/970126%5F47/irc12s.htm> and <http://www.fpb.gov.bc.ca/complaints/980161/blunt.pdf>
- ^{viii} <http://www.fpb.gov.bc.ca/COMPLAINTS/irc79/irc79s.htm>
- ^{ix} <http://www.fpb.gov.bc.ca/complaints/IRC106/IRC106.pdf>
- ^x <http://www.fpb.gov.bc.ca/news/releases/2004/29-09.htm>
- ^{xi} <http://www.fpb.gov.bc.ca/news/releases/2005/07-06.htm>
- ^{xii} <http://www.fpb.gov.bc.ca/audits/arc15/arc15.pdf>, <http://www.fpb.gov.bc.ca/audits/arc05/arc05.pdf>, <http://www.fpb.gov.bc.ca/audits/arc09/arc09.pdf>, and <http://www.fpb.gov.bc.ca/news/releases/2005/07-13.htm>
- ^{xiii} Environment Trends in BC 2002: Habitat – Roads. <http://wlapwww.gov.bc.ca/soerpt/3habitat/roadsglance.html>
- ^{xiv} Current Digital Road Atlas v. 2 (DRA2) estimates are 549 277 km but this number is low as roads are known to be missing – Mark Sondheim, personal communication
- ^{xv} Nicole Pharand-Fraser, personal communication
- ^{xvi} Ron Davis, personal communication
- ^{xvii} <http://www.fpb.gov.bc.ca/audits/arc52/arc52.pdf> and <http://www.fpb.gov.bc.ca/audits/arc19/b-toc.htm>
- ^{xviii} <http://lrdw.ca/>
- ^{xix} <http://www.fpb.gov.bc.ca/special/investigations/SIR14/SIR14.pdf>
- ^{xx} Ron Davis, personal communication.
- ^{xxi} <http://www.for.gov.bc.ca/dss/RAMP/RAMPtoc.htm>
- ^{xxii} <http://srmwww.gov.bc.ca/kor/rec/gbrap.htm>
- ^{xxiii} <http://www.fpb.gov.bc.ca/audits/arc50/Fort%20NelsonAreaFullReport.pdf>
- ^{xxiv} <http://www.fpb.gov.bc.ca/complaints/irc13/irc13s.htm> and <http://www.fpb.gov.bc.ca/complaints/irc97s.htm>
- ^{xxv} <http://www.for.gov.bc.ca/dqu/>
- ^{xxvi} <http://srmwww.gov.bc.ca/sir/srmp/valemount/index.html>
- ^{xxvii} <http://www.fpb.gov.bc.ca/complaints/980161/blunt.pdf> and http://www.fpb.gov.bc.ca/complaints/970126_47/content.htm
- ^{xxviii} <http://orvcoalitionbc.org/PreliminaryOptionsReport.18July05.pdf> (see p. 29)
- ^{xxix} <http://www.orvcoalitionbc.org>
- ^{xxx} <http://www.fpb.gov.bc.ca/COMPLAINTS/irc13/irc13s.htm>.