

A Component of British Columbia's
Land Use Strategy

Bulkley Land and Resource Management Plan



March 1998

(Please note that this document has undergone minor formatting since approval and as such page numbering has changed slightly.)

Bulkley Land and Resource Management Plan

Prepared by:
**Bulkley Valley Community Resources Board
Interagency Planning Team**

March 1998



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Dear Reader:

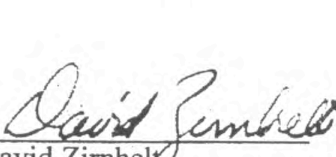
**Re: Approval and Direction to Implement the
Bulkley Land and Resource Management Plan**

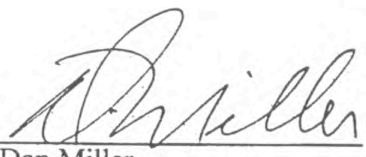
On behalf of Cabinet, we are pleased to approve the Bulkley Land and Resource Management Plan (LRMP) and direct participating ministries to implement the plan.

The LRMP is intended to guide ongoing resource management activities, including designation of new provincial parks and planning for forest development. The Prince Rupert Interagency Management Committee is charged with ensuring that the plan is implemented, monitored and reviewed.

We would like to thank members of the Bulkley Valley Community Resource Board for their significant contribution to development of the Bulkley LRMP. The board has demonstrated that diverse interests can work together to develop consensus on future management of land and resources. Their cooperative approach and commitment to negotiation at the community level are exemplary for other land use planning processes. We encourage the board to continue to participate in plan monitoring.

We look forward to successful implementation of the Bulkley LRMP and are confident that the plan will contribute to sustainable development in the Bulkley Valley.


David Zirnhel
Minister of Forests


Dan Miller
Minister of Energy and Mines

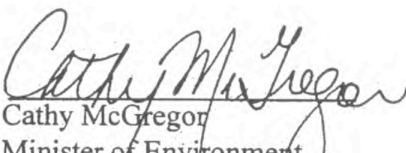

Cathy McGregor
Minister of Environment,
Lands and Parks

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Summary

The Bulkley Land and Resource Management Plan (LRMP) is a sub-regional land use plan covering approximately 760,000 hectares of north central British Columbia. This LRMP will guide management of public lands and resources for the Bulkley Plan Area which coincides with the Bulkley portion of the Bulkley/Cassiar Forest District in the Prince Rupert Forest Region.

The Bulkley LRMP process is consistent with provincial government policy for land use planning, as described in the Provincial Land Use Charter (1992) and the policy document *Land and Resource Management Planning: A Statement of Principles and Process (1993)*.

The Bulkley LRMP is built upon and closely reflects the Consensus Management Direction (CMD) reached by the 12-member Bulkley Valley Community Resources Board (CRB or Board) through a five and one-half year process of study and consultation. This board of public representatives devised the CMD to reflect the range of land use values within the Plan Area, using biodiversity and sustainability as core concepts.

The Board ratified the CMD in June 1996 after public input. This was followed shortly thereafter by endorsement from the Interagency Management Committee (IAMC) of provincial agency regional managers. Government announced approval-in-principle of the CMD in June of 1997, and directed the production of this final LRMP document.

Management Direction

The Community Resources Board developed four levels of management direction. Taken together, these levels fully reflect the vision for land and resource management in the Bulkley Plan Area. These levels include: General Management Direction; Resource Management Zones; Ecosystem Network and Enhanced Timber Development Areas; and Planning Unit Management Direction.

This LRMP will guide management of public lands and resources for the Bulkley Plan Area

reflect the needs and interests of all users and values

General Management Direction

The LRMP provides General Management Direction through 11 categories (biodiversity, access, timber, water quality, fish and wildlife habitat, visual quality, range, outdoor recreation and tourism, subsurface resources, cultural heritage resources and future planning processes) that apply to all agencies, resources and activities throughout the Bulkley Plan Area. These categories are intended to reflect the needs and interests of all users and values, and to complement each other. The General Management Direction is enhanced and supported by an array of legislation, policies, processes and operational guidelines.

New initiatives that affect land management in the Bulkley Plan Area, such as Landscape Unit Plans, and more detailed levels of planning by agencies responsible for implementing the LRMP, must be consistent with the General Management Direction outlined in this plan. As well, all existing tenures will be respected when new land use decisions are contemplated pursuant to the LRMP.

Resource Management Zones

The landbase in the Plan Area is allocated into six Resource Management Zones (RMZs) which are distinct with respect to biophysical characteristics, resource issues or resource management direction. The six zones are delineated as follows: Protected, Special Management 1 and 2, Integrated Resource Management, Settlement, and Agriculture/ Wildlife.

Protected (P) — 5% of the Bulkley Plan Area

This zone identifies areas for their natural, cultural, heritage and/or recreation values in accordance with the provincial Protected Areas Strategy (PAS) objectives. Goal 1 objectives target large landscapes containing representational features unique in the region, while Goal 2 objectives target smaller unique features, such as bogs and waterfalls.

Industrial exploration or extraction is not allowed. Other activities are guided by Cabinet-approved policy on acceptable uses in protected areas.

Goal 1 areas include the Babine River Corridor, the Babine Mountains Recreation Area, and Driftwood Recreation Extension. Goal 2 areas include Burnt Cabin Bog, Boulder Creek, Netalzul Meadow and Waterfall, Call Lake, Nilkitkwa Lake Sites and Rainbow Alley. Each Goal 1 area will have a formal Management Plan identifying management objectives and acceptable activities.

Special Management 1 (SM1) — 8% of the Bulkley Plan Area

The SM1 Zone identifies areas where special care must be taken to avoid compromising non-industrial resource values. Mining exploration and

development activities are allowed. Timber harvesting is not allowed. Removal of trees is permitted only where required for approved mining exploration and development purposes, including access, and for other activities consistent with objectives and specific direction for management stated in each of the planning units and sub units.

SM1 areas include Barbeau Creek Watershed, Big Onion Mountain, Old Cronin Mine Area, Cronin Alpine Area, Howson Range, Hankin Plateau and Silvern Lakes.

Special Management 2 (SM2) — 13% of the Bulkley Plan Area

This zone identifies areas where industrial activities will be carried out sensitively to ensure that impacts on identified values such as wildlife habitat, visual quality, recreation or sensitive soils are minimized.

SM2 areas include Babine River, Reiserer Creek, Upper Corya Creek, Glacier Gulch, Hudson Bay Mountain, Ski Smithers, Community Forest, Mooseskin Johnny, Telkwa River, Copper River, Serb Creek Watershed and Mulwain Creek.

Integrated Resource Management (IRM) — 64% of the Bulkley Plan Area

This zone identifies areas where a range of resource values and activities are recognized and given equal consideration.

IRM areas include Nilkitkwa River, Babine, Torkelsen Lake, Harold Price, Ganokwa Creek, Blunt Mountain, Gramophone Creek, Chapman Lake, Deep Creek, Bulkley Valley, Corya Creek, Kitseguecla, Goathorn Creek, Sinclair Creek and Hankin Lake.

Settlement (S) — 1% of the Bulkley Plan Area

This zone identifies Crown land surrounding Smithers and Telkwa with potential for residential, commercial and industrial development. It is primarily planned and managed by local governments under the *Municipal Act*. The majority falls within Planning Unit 7 (Bulkley Valley).

Agriculture/Wildlife (A/W) — 2% of the Bulkley Plan Area

This zone identifies Crown land with good agricultural capabilities and which also has good wildlife habitat. This zone will ensure that land with agricultural potential is retained for the future but subject to wildlife considerations. As well, land near the IRM boundary that has marginal agricultural potential but good wildlife forage capabilities is excluded. Areas under grazing leases are included, while areas under grazing permits and licences are not.

This zone identifies areas where a range of resource values and activities are recognized and given equal consideration.

The remaining 7% of the Bulkley Plan Area is comprised of Private Land and Indian Reserves.

Ecosystem Network and Enhanced Timber Development Areas

This LRMP provides direction to more detailed planning through an ecosystem network and enhanced timber development areas.

The ecosystem network extends throughout the Bulkley Plan Area in all planning units, and includes both core ecosystems and landscape corridors. Management strategies will range from no timber extraction to modified harvesting practices. These areas are not intended to have legislated boundaries; the boundaries are deliberately flexible to allow adjustment by the Forest District Manager and a designated Ministry of Environment, Lands and Parks (MoELP) official.

Core ecosystems provide a representative cross-section of ecosystems, retain representative samples of old growth forest and provide interior forest conditions.

Landscape corridors maintain connectivity within the landscape, reduce habitat fragmentation, permit movement and dispersal of plant and animal species, and maintain forests dominated by mature tree cover.

Enhanced timber development areas are generally on productive sites on gentle slopes having low conflict with other values or uses. These areas are well-distributed throughout the Bulkley Plan Area in small, non-contiguous sites, and will be managed under intensive silviculture practices, with the objectives of enhancing the available timber supply and improving timber quality.

Planning Unit Management Direction

This LRMP further guides the development of more detailed planning by subdividing the RMZs into 12 planning units to be managed on a sustainable basis. Land use activities should be balanced across all planning units. Some planning units were further divided in order to address unique concerns within particular landscapes.

Socio-Economic And Environmental Analysis

An assessment was made of the likely effects of the LRMP Consensus Management Direction on socio-economic and environmental conditions, compared to the conditions that would likely result in the absence of an LRMP (the status quo situation). Since the forestry sector dominates the Plan Area's economy, the status quo scenario was based on expected declines in harvest levels over the next several decades to reach the long run sustainable yield level.

Management strategies will range from no timber extraction to modified harvesting practices.

Economic impact analysis projections suggest no initial differences between the effect of the LRMP and the effect of status quo harvest levels on the forest sector. By the third decade, the LRMP is projected to result in 18-35 fewer total person years of regional employment annually, and 33-68 fewer person years of provincial employment.

The overall economic impact on the mining industry is expected to be positive, as certainty of mineral tenure will be established in areas outside of protected zones, and mineral exploration and development can occur in special management zones. Overall, LRMP implementation is projected to have a more positive impact on the tourism resource compared to the status quo, and to improve short term trapline productivity.

In terms of government revenues, there are no differences between the LRMP and the status quo harvest levels in the first decade. From the second to the sixth decade, government revenue is expected to decline more steeply under the LRMP, with a total of \$0.32-0.64 million/year foregone in the second decade, and between \$0.57-1.12 million/year foregone in the third.

For environmental values, particularly feature species such as grizzly bear, caribou and mountain goat, the LRMP is preferred over the status quo as having lower impact. The LRMP is also preferred when habitat indicators such as landscape connectivity, tree species composition, riparian habitat and conservation emphasis are measured.

Monitoring and Implementation

The effectiveness of this plan hinges on monitoring. Monitoring allows for ongoing improvement and fine tuning during the life of the LRMP and provides direction for the next LRMP update.

Following implementation, the IAMC will be responsible for ensuring that relevant government agencies produce annual monitoring reports on the status of implementation of LRMP objectives for the Board, and the Board will coordinate the presentation of this report at an annual public meeting. The Board and government agencies will work closely together to develop procedures and structures that make the monitoring process efficient, effective, and accountable to the public.

Continued monitoring will ensure that the intent of the plan is carried out in land management decisions. Plan updates and unscheduled amendments may occur where appropriate, up until the scheduled amendment eight years after implementation of the plan.

The effectiveness of this plan hinges on monitoring.



The Board developed their Consensus Management Direction around the central concepts of biodiversity and sustainability.

1.0 Introduction

This report forms the government-approved Bulkley Land and Resource Management Plan (LRMP), a sub-regional land use plan covering approximately 760,000 hectares of northwestern British Columbia. The Bulkley LRMP is a part of British Columbia's Land Use Strategy, and directs the management of provincial Crown land in the Plan Area for the next ten years. This plan and the process used to develop it are consistent with provincial government policy for land use planning, as described in the *Provincial Land Use Charter (1992)* and *Land and Resource Management Planning, A Statement of Principles and Process (1993)*. The Bulkley LRMP reflects the Consensus Management Direction (CMD) established by the Bulkley Valley Community Resources Board (the Board) and a team of government representatives, and in consultation with First Nations and local government.

The Board developed their Consensus Management Direction around the central concepts of biodiversity and sustainability. Their intent was to provide management directions that would ensure the health of the community, the resources and all natural systems within the Bulkley Plan Area. The Board considered all aspects of the area before arriving at a consensus decision. Technical analyses of the consensus was completed by an Interagency Planning Team (IPT) comprised of representatives from provincial government agencies with land and resource management mandates.

All land use and resource management activities within the Bulkley Plan Area are subject to existing legislation, policies and regulations for Crown land and resource management. The Forest Practices Code provides standards for sustainable forest management practices and for integrated resource planning through the establishment of local level plans. As a Cabinet-approved plan, the LRMP will provide direction to more detailed plans, including those developed and implemented under the Forest Practices Code.

During development of the Bulkley LRMP all resource values were evaluated with a view to retaining the biodiversity of the land base. The definition of biological diversity found in the Forest Practices Code of British Columbia Biodiversity Guidebook was used to assist land use planning discussions.¹

In addition to biodiversity, a number of other resources were evaluated during the formation of the plan. These include: timber, fisheries, water

¹ Forest Practices Code of British Columbia, Biodiversity Guidebook, September 1995

quality, wildlife, agriculture, range, outdoor recreation and tourism, and subsurface resources.

This report contains:

- a synopsis of the physical, social, economic and environmental aspects of the Plan Area;
- an overview of the planning process;
- objectives and strategies for land and resource management; and,
- management direction for implementation, monitoring and amendment of the plan.

1.1 The Plan Area

1.1.1 Location

The 760,000 hectare Bulkley Plan Area encompasses a landscape of mountains, streams, lakes, forests and farmlands in the northwest interior of British Columbia. It corresponds to the Bulkley Timber Supply Area (TSA) boundary, and is found in the Bulkley/Cassiar Forest District of the Prince Rupert Forest Region. It is located in the eastern side of the Skeena watershed. Bounded by the Telkwa watershed in the south, the Plan Area extends north to the headwaters of the Nilkitkwa River. The Bulkley Valley lies within the southern portion of the area and contains the major population concentration, including the communities of Smithers, Telkwa and Moricetown.

1.1.2 Forest Cover

Forests of the area are dominated by subalpine fir (balsam) (56%), with significant areas of lodgepole pine (21%), and spruce (18%). Hemlock and amabilis fir occur in the areas of coastal influence. Approximately half of the forest area is over 200 years old, consisting of slow-growing, high-volume stands. The other half is reasonably well-distributed across the younger age classes. This is partially due to a long history of timber harvesting, dating from tie-cutting for construction of the Grand Trunk Pacific Railway in 1913. The timber harvesting land base of the Bulkley Plan Area consists of approximately 278,000 hectares.

Approximately half the timber harvesting landbase is presently stocked with subalpine fir (balsam) mixtures, mainly at higher elevations. In the valleys, and the interior plateau portions of the Plan Area, spruce and lodgepole pine comprise the balance of the inventory. The small hemlock component is located in areas subject to coastal climatic influence.

The 760,000 hectare Bulkley Plan Area encompasses a landscape of mountains, streams, lakes, forests and farmlands in the northwest interior of British Columbia.

Bulkley Plan Area



1.1.3 Biogeoclimatic Zones

The Bulkley Plan Area includes six biogeoclimatic zones: Sub-Boreal Spruce (40%), Engelmann Spruce-Subalpine Fir (34 %), Interior Cedar-Hemlock (6%), Alpine Tundra (16%), Coastal Western Hemlock (2%)(and Mountain Hemlock (2%).

Sub-Boreal Spruce (SBS)

This zone lies between the interior Douglas-fir forests to the south and the boreal forests to the north, and occurs primarily on gently rolling plateaus. It covers most of the interior portion below elevations of approximately 1,000 metres. Although the climate is severe, forest productivity is moderately good because the winters are shorter and the growing season longer than in boreal areas. Hybrid Engelmann-white spruce, lodgepole pine and subalpine fir are the dominant tree species. These areas are located primarily along the Bulkley River Valley and along the Babine River and Babine Lake. Most of the settlements and agricultural land occur within this zone.

Engelmann Spruce-Subalpine Fir (ESSF)

This zone occurs from approximately 1000 to 1500 metres elevation throughout much of the interior. The climate is severe, with short, cool growing seasons and long, cold winters. The landscape at the upper elevations is open parkland with trees clumped and interspersed with meadow, heath and grassland. Engelmann spruce, subalpine fir, and lodgepole pine are the dominant species. These areas are located in all mountainous portions of the Bulkley Plan Area.

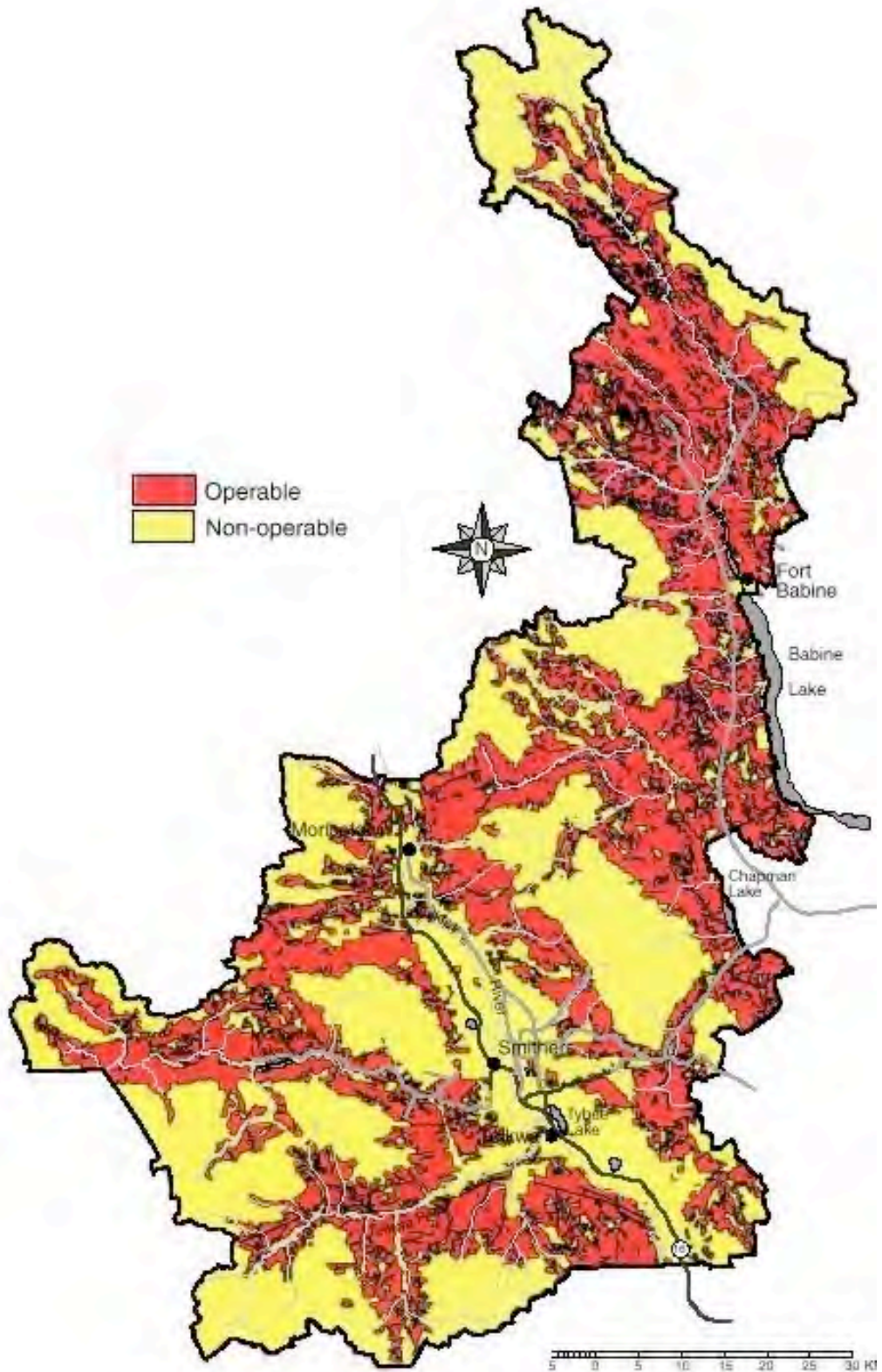
Interior Cedar - Hemlock (ICH)

This zone occurs at lower to middle elevations in areas of wet climate within the interior of the province. It is located mainly in the western portion of the Plan Area around Moricetown, as well as the Kitseguella and Bulkley Valleys below Moricetown and surrounding mountain slopes, including the face of Hudson Bay Mountain. Winters are cool and wet and summers are generally warm and dry. This zone is the most productive in the interior and has the widest variety of coniferous tree species of any zone in the province. Western hemlock is the characteristic species, but spruce and subalpine fir are also common.

Alpine Tundra (AT)

This zone is found on high mountains, and is essentially a treeless region characterized by a harsh climate. Long, cold winters and a short, cool growing season create conditions too severe for the growth of most woody plants, except in dwarf form. This zone is dominated by dwarf shrubs, herbs, mosses and lichens. It has high recreational appeal, and can provide important range for caribou and mountain goats.

**Bulkley Plan Area
Timber Landbase – 1995**



Coastal Western Hemlock (CWH)

The northern latitude rainforests comprising this zone occurs at low elevations in coastal areas. Western hemlock and amabilis fir are dominant tree species. Although predominantly maritime, the climate is significantly influenced by continental weather patterns. This zone can be found on the leeward slopes of the Coast Mountain Range in the southwestern section of the Bulkley Plan Area.

Mountain Hemlock (MH)

This zone occurs at subalpine elevations in the Coast Mountains. Mountain hemlock, amabilis fir and subalpine fir are the dominant tree species. Upper elevations of the zone consist of clumped trees interspersed with heath, wet meadows and bogs. The climate is very snowy with a short, cloudy growing season, and cool, but not extremely cold temperatures. Small pockets of this zone can be found in the mountains of the Telkwa Pass and Copper River areas in the southwestern corner of the Bulkley Plan Area.

1.1.4 Fisheries Resources

The Bulkley Plan Area has several high quality fisheries, with the Babine, Copper and Bulkley Rivers designated as classified waters. The Babine River is the largest producer of sockeye salmon and steelhead trout in the Skeena drainage system. Large populations of pink salmon, Dolly Varden char and cutthroat trout are present. Smaller populations of Chinook and coho are considered threatened.

Next to the Fraser River system, the sockeye salmon population of the Skeena system is the largest in the province. The Bulkley Plan Area borders on the west arm of Babine Lake which has the largest recreational sports fishery in the region. One area at the mouth of the lake, north of Fort Babine, referred to as Rainbow Alley, is of international significance. In addition, there are also angling opportunities in smaller lakes.

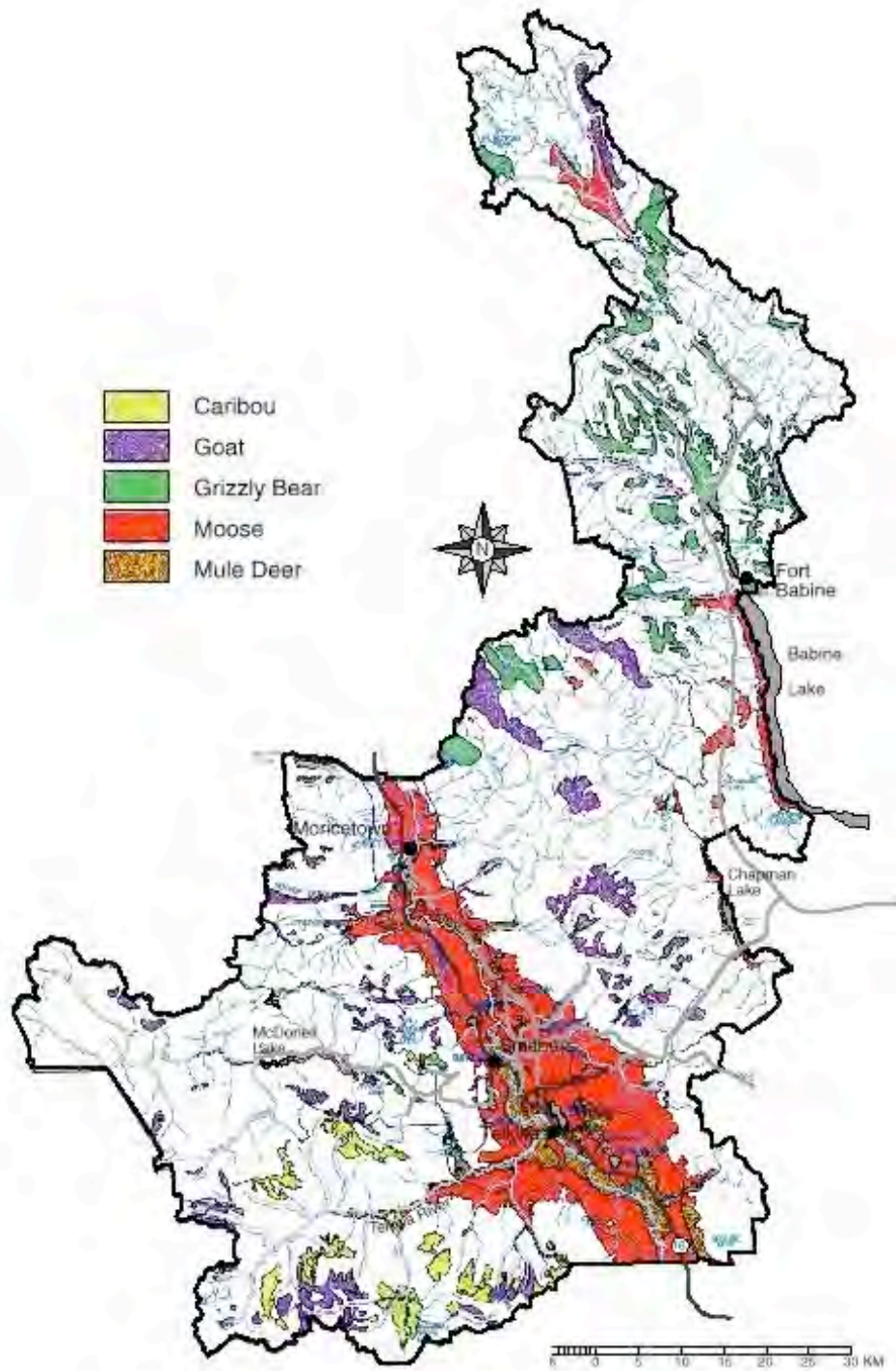
The most important areas for fish habitat are tributaries to the rivers mentioned above. In general, these tributaries are more important than the main streams in terms of habitat for spawning and rearing.

1.1.5 Wildlife Resources

The Bulkley Plan Area supports an abundance of wildlife. In 1995, the Ministry of Environment, Lands and Parks identified ten species as being of management concern in the Bulkley Plan Area. The giant pygmy whitefish was red-listed (i.e. endangered or threatened), while the short-eared owl, American bittern, Swainson's hawk, trumpeter swan, bald eagle, bull trout, wolverine, fisher, and grizzly bear were all blue-listed (i.e. vulnerable and considered to be at risk). A number of species that had previously received little attention due to their secretive habits or

Next to the Fraser River system, the sockeye salmon population of the Skeena system is the largest in the province.

Bulkley Plan Area Wildlife Habitat – 1995



perceived abundance, are now of concern as they are sensitive to area reductions of old-growth and mature forests.

Significant wildlife species addressed in this LRMP include grizzly bear, caribou and mountain goat.

Grizzly bear home ranges extend from 24 km² to 300 km². Typically, grizzly bear utilize lower elevation habitats in the early spring, migrate to high elevations during summer and require a range of habitat types. In the sub-boreal zone, grizzlies typically utilize riparian and wet forests throughout their range during summer for eating berries, foraging and traveling.

Caribou are generally found in close proximity to high elevation ranges and favor mature and overmature coniferous forest, primarily subalpine fir with abundant arboreal lichen growth. Caribou also utilize lower elevations where they favor arboreal lichens as snow depths increase.

Mountain goats are also found in higher elevations. Connectivity between mountain ranges is important, as it allows young male goats access to a wider area.

1.1.6 Mineral Resources

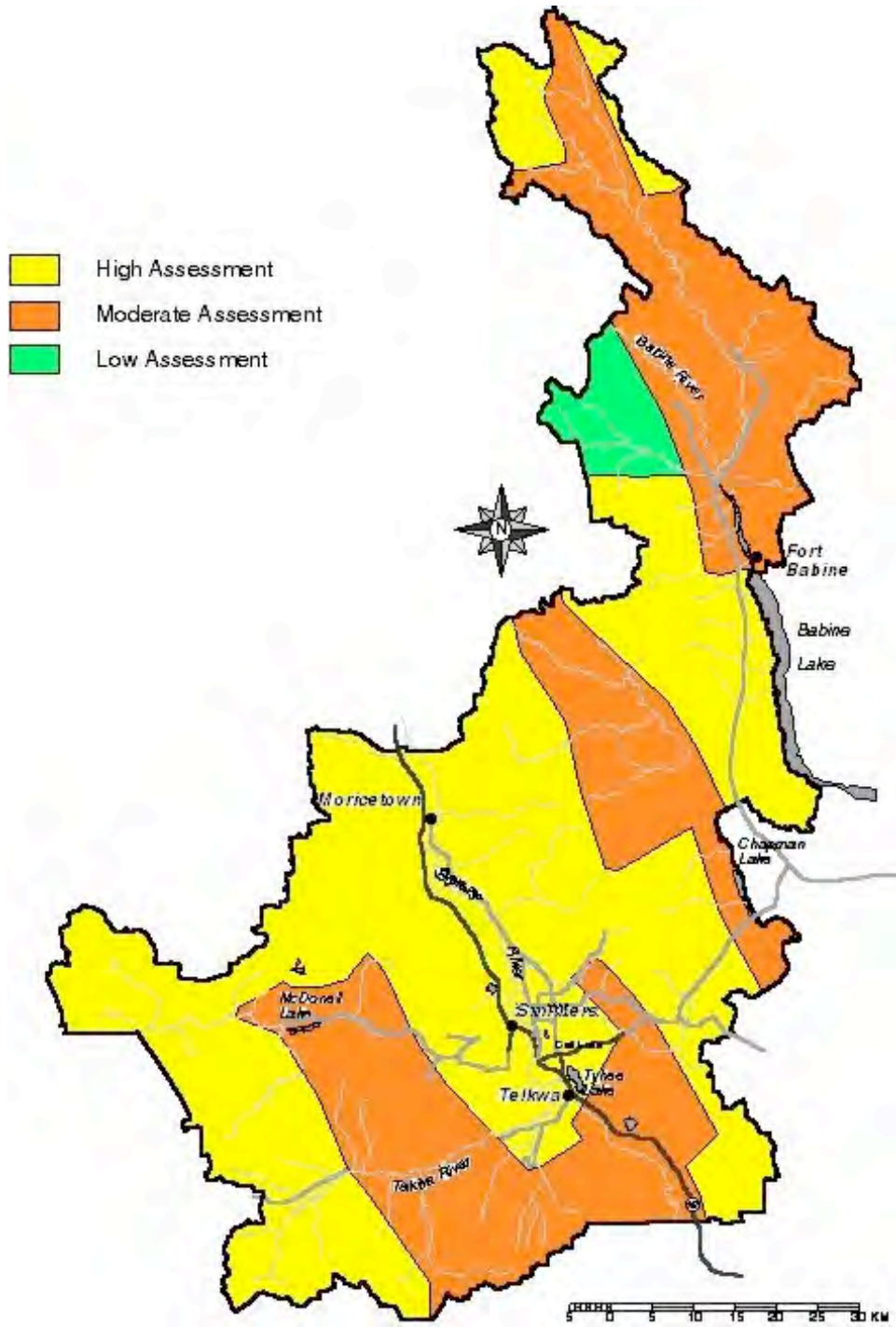
The Bulkley Plan Area has an exploration and mining history that began early in the twentieth century. Base (copper, molybdenum) and precious metals (gold, silver) as well as coal have been produced from several underground mines, the most significant of which are the Duthie (Hudson Bay Mountain), the Cronin (Babine Mountains) and the Telkwa coal mine. Although there are currently no operating mines in the Bulkley Plan Area, Smithers is an important staging area for exploration projects and operating mines in the region. Numerous roads and trails originally built to provide access to mineral occurrences in alpine regions now provide the basis for hiking trails.

Provincially, the mineral potential of the Bulkley Plan Area is high and future development has the potential to diversify the economy of the region. About 56% of the Bulkley Plan Area is classified as having a high metallic mineral potential, 40.7% as moderate potential, and 2.8% as low potential. The Bulkley Plan Area has significant coal resources, as well as sand and gravel.

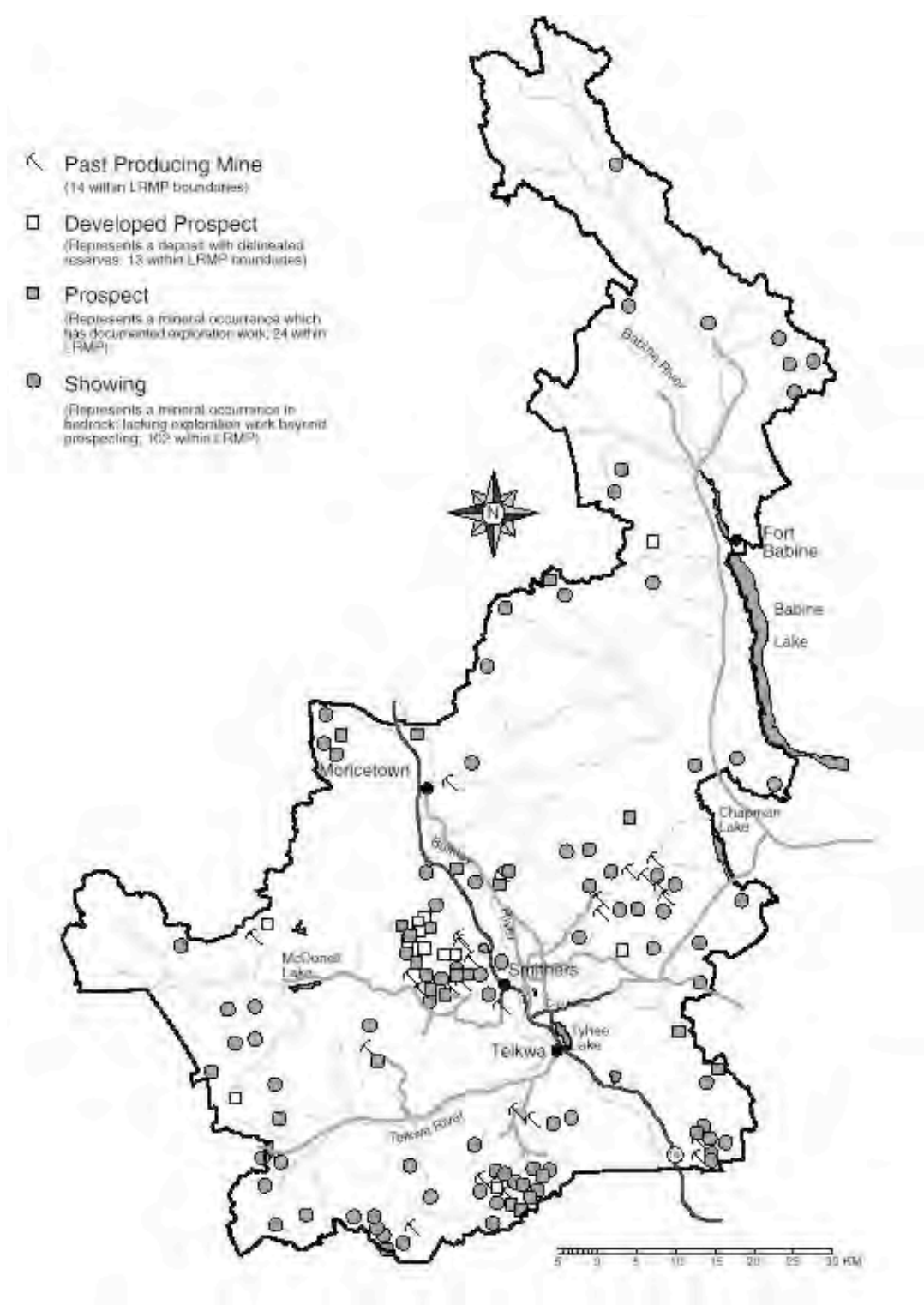
An indicator of metallic mineral potential includes the number and type of known mineral occurrences. In 1994, there were 173 known occurrences. Of these, 24 were prospects having deposits of some dimension and value, and 13 were developed prospects in which there was a high degree of confidence in the grade and tonnage. As of 1994, 4.9 % of the Bulkley Plan Area was under active claim.

Provincially, the mineral potential of the Bulkley Plan Area is high.

Bulkley Plan Area Metallic Mineral Assessment



Bulkley Plan Area Recorded Mineral Occurrences



The Bulkley Plan Area has a total population of 11,812.

The Plan Area is also part of the traditional territories of the Gitksan, Wet'suwet'en, Nat'oot'en and Tsimshian people.

1.1.7 Agricultural Resources

The richest agricultural areas in the Bulkley Plan Area are located in the Bulkley Valley. The agriculture land base is mostly suited to dairy farming and ranching with a focus on beef production and forage crops. Crown rangeland supplements private land grazing. Approximately 90,000 hectares in the Bulkley Plan Area are part of the agricultural land reserve. Of this total area, 50,000 hectares is being used as farmland, while some of the remaining arable is forested. As land is cleared for agricultural purposes, timber is harvested and sold to sawmills.

1.1.8 Settlement and Communities

The Bulkley Plan Area has a total population of 11,812. The Town of Smithers (pop. 5,689) and the Village of Telkwa (pop. 1,200) are the main settlement areas in the Bulkley Valley. The rural population outside these communities accounts for another 4,923 residents within the general area of the valley. Population growth is expected to be strong over the next 20 years.

Smithers and Telkwa are the only incorporated communities within the Bulkley Plan Area. The rural communities in the valley fall under the jurisdiction of the Regional District of Bulkley-Nechako, based in Burns Lake.

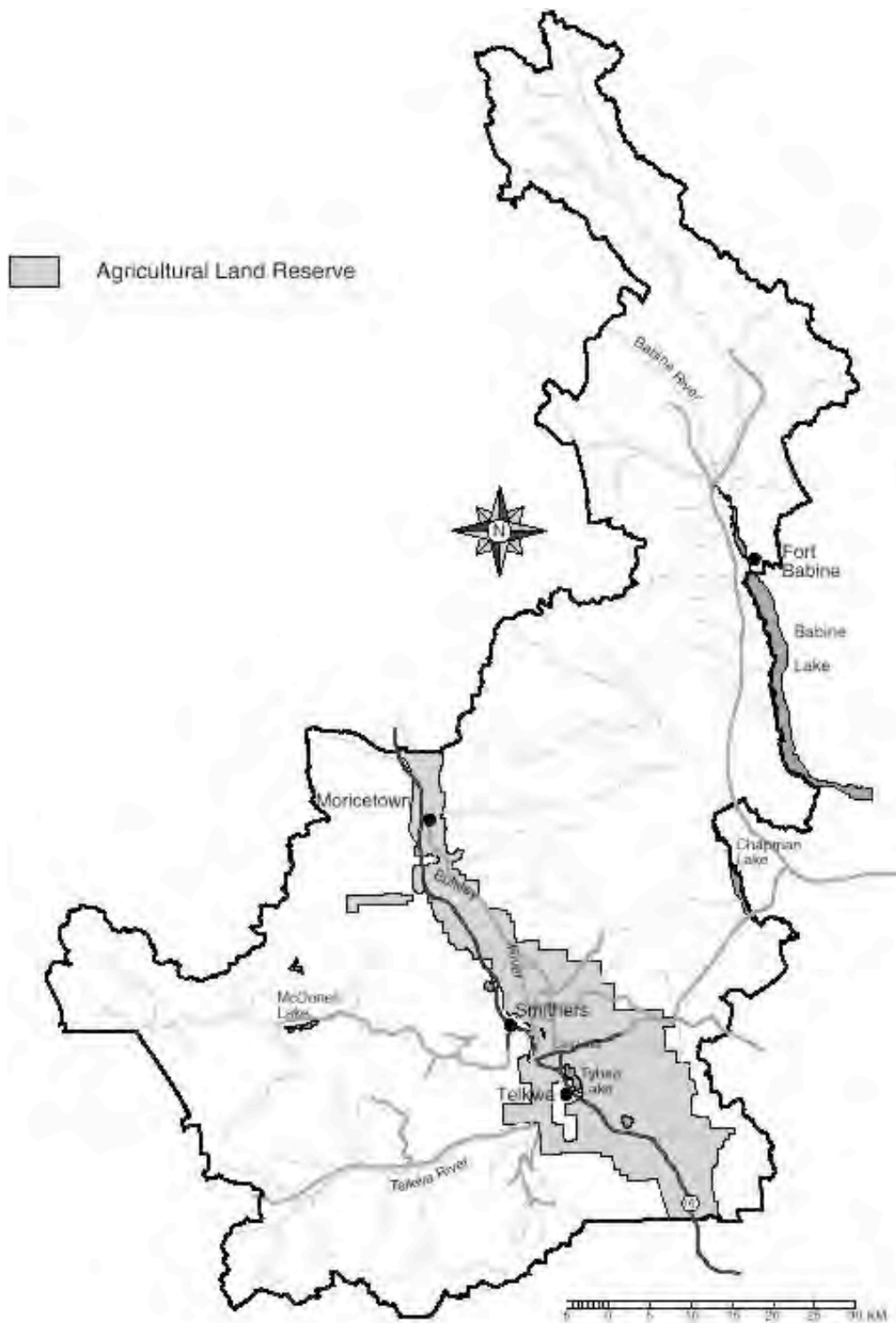
Several regional provincial government offices are located in Smithers, as are many district offices. There are seven public schools, four private schools and a school in each of the First Nations villages.

The Town of Smithers serves as a health care and service centre for residents of the Bulkley Plan Area. The community is well-serviced in terms of health, social, education and recreation programs and amenities. Social and health profile indicators in the Smithers Local Health Area all compare favourably to B.C. averages.

The Plan Area is also part of the traditional territories of the Gitksan, Wet'suwet'en, Nat'oot'en and Tsimshian people. The Wet'suwet'en community of Moricetown, north of Smithers, has an estimated population of 650. It is locally administered by the Band. The Nat'oot'en community of Fort Babine, located northeast of Smithers on the shores of Babine Lake, has a population of around 135. It is administered through the Lake Babine Band Office in Burns Lake. The Gitksan and Tsimshian do not have any communities within the Plan Area. There are many First Nations people who live off the reserves, in Smithers and in other communities.

In addition to the population of these year-round communities, there is an extensive seasonal population in the area, due to resource industry employment and recreation opportunities.

Bulkley Plan Area Agricultural Land Reserve



In demographic terms the population tends to be younger, with marginally less educational achievement than the B.C. average. Bulkley Plan Area residents earn a higher average income than the B.C. average income.

1.1.9 Economic Profile

Forestry, mining, tourism, agriculture and the public sector are all important economic base sectors in the local economy. Forestry is clearly the most dominant in terms of employment and community income. Forestry activities account for 23 per cent of basic sector income in the Bulkley Plan Area economy.

Forestry activities account for 23 per cent of basic sector income in the Bulkley Plan Area economy.

Total provincial government revenues, including personal taxes, corporate taxes, sales taxes, range fees, etc., are approximately \$34.20 million from forestry, agriculture, mining, fisheries and tourism. Forestry clearly provides the largest share at a total of \$31.18 million with stumpage, rents and royalties of \$19.69 million providing the largest share of this total. Tourism provides the second largest amount of provincial government revenues at \$1.84 million. Personal income taxes is the largest contributor to this figure at \$0.76 million. Agriculture, mining and fisheries each provide \$0.93 million, \$0.15 million and \$0.01 million, respectively, in provincial government revenues.

Income levels in Smithers and the surrounding area are close to the BC average. Incomes throughout the regional district in 1991 (the last census year) averaged \$24,199, while in Smithers earnings averaged \$26,368. Employment income provides 72.8 % of the total income in Smithers, which is higher than the B.C. average.

Retail trade employment is very strong in the Bulkley Plan Area, and averages 14.6 percent compared to a B.C. average of 13 percent. The transportation and government services labour force is also significant, at 8.7 and 7.4 percent respectively. Logging, forest services and wood manufacturing accounted for 12.2 percent of employment in the Smithers/Telkwa area in 1991.

Over the last 10 years, Smithers has tended to experience a higher rate of unemployment than the B.C. average. Other economic indicators suggest a relatively buoyant regional economy. Smithers has a stable economic base that has kept the community intact through regional and provincial economic fluctuations.

Unemployment among aboriginal peoples in the Bulkley Plan Area is significantly higher than it is in other segments of the population. Both the Moricetown and the Lake Babine Bands are interested in developing employment opportunities in the area. Options examined include commercial fisheries, forestry, and tourism. First Nations, forest

companies and the Ministry of Forests are all involved in several forestry initiatives aimed at improving economic and employment conditions for aboriginal people in the area.

1.1.9.1 Forest Sector

Smithers has a large forest services sector. Headquarters for district and regional forestry operations are located here, as are a number of consultants and contractors providing services that include logging, engineering, cruising, silviculture and hauling.

The Plan Area corresponds to the Bulkley Timber Supply Area (TSA), which has a timber harvesting land base of 277,680 hectares. In 1995, the chief forester set the Allowable Annual Cut (AAC) for the TSA at 895,000 cubic metres per year. Major licensees for this quota include Skeena Cellulose, Pacific Inland Resources (PIR) and the Small Business Forest Enterprise Program (SBFEP).

Three sawmills within the Bulkley Plan Area contribute to forest-sector employment. Pacific Inland Resources (PIR) and Skeena Cellulose (formerly Repap Smithers) are located in Smithers, while Kyahwood Forest Products operates in Moricetown. PIR is a division of West Fraser Timber Ltd., and operates a sawmill and a whole log chipper at its Smithers site. Approximately 644,000 cubic metres of sawlogs and 180,000 cubic metres of pulplogs are processed annually. Sawdust from PIR is used by the nearby Northern Engineered Wood Products, or Newpro, to produce particle board.

The Skeena Cellulose sawmill produces finished forest products largely for Japanese, European and Australian markets. Average log consumption is 216,000 cubic meters per year.

Kyahwood Forest Products Ltd. is a joint venture between Northwood Pulp and Timber Limited (49%) and Kyah Forest Products Limited (51%). Kyahwood, a value added facility, produces finger joint lumber from mill ends generated at Northwood's sawmill in Houston. Kyahwood employs primarily Wet'suwet'en First Nations people from Moricetown. Kyahwood currently holds two bid proposal timber sale licences.

Other small mills in the Plan Area include Alpine Cedar Products, Veenstra Sawmills, Mount Seaton (a planer mill) and Seaton Timber. All of these mills, together with a host of logging contractors, forestry consultants and support service companies, form a viable forest industry regionally which is based primarily on the Bulkley TSA AAC.

A total of 978 Person Years (PYs) of direct and indirect employment and \$29.37 million in income are generated by forestry within the Plan Area annually. For the province as a whole, 1,880 direct and indirect PYs of

Three sawmills within the Bulkley Plan Area contribute to forest-sector employment.

employment and \$53.17 million in income are generated by the Bulkley TSA AAC.

1.1.9.2 Agricultural Sector

The Bulkley Valley is the richest agricultural area in Northwestern BC and contains a number of farms and ranches, with an emphasis on dairy and beef operations. Agriculture statistics specific to the Bulkley Plan Area are not available, but figures from the Bulkley-Nechako Subdivision B are thought to be fairly representative of the agricultural industry in the region. Gross farm revenues for the 258 working farms have been estimated at \$11.3 million supporting approximately 450 PYs provincially.

Eighty to ninety percent of agricultural activity can be attributed to the Bulkley Plan Area. Of the total farm area of the Bulkley-Nechako Subdivision B, approximately 91% is within the Plan Area. Twenty-one percent of the farm area is used for crop production, primarily forage, but also some vegetable and berry production.

1.1.9.3 Minerals Sector

The Bulkley Plan Area has a long mineral exploration and mining history. In the past, operating mines have contributed significantly in terms of wages to and services from the local economy. As a major supply and transportation centre for mineral exploration in the northwest, Smithers' businesses have had significant benefit from this activity. Over the past ten years, 35-40% of the provincial mineral exploration expenditures have been spent in the Northwest region, and this shows no sign of changing.

In addition to the contribution of the Bell, Equity, Snip and Eskay mines to the economy of the Bulkley Plan Area, there are currently five projects in or recently having passed through the Environmental Assessment process that could have a positive economic impact on the area. They are Kemess South, Bronson Slope, Red Chris (all copper-gold projects), Telkwa (thermal coal), and the recently approved Huckleberry project (copper). Together these proposed mines could provide as many as 1,700 short-term construction jobs and 1,130 indirect jobs of which a significant portion could accrue to the Bulkley Plan Area.

Many consultants, drilling operations, surveyors, prospectors and some exploration companies are based out of the Bulkley Valley, although all of the mines except for the Telkwa are outside the Bulkley Plan Area.

There are also seven sand and gravel quarries in the Plan Area.

1.1.9.4 Fisheries Sector

In the Bulkley Plan Area, six major watersheds provide habitat for four salmon species, sockeye, pink, Chinook and coho. Commercially, sockeye and pink provide the bulk of volume and value with Chinook and coho

The Bulkley Plan Area has a long mineral exploration and mining history.

less important. In 1995, the estimated commercial catch attributable to the Bulkley Plan Area was 974,124 salmon valued at \$30.6 million (wholesale).

The salmon fishery is a very important aspect of life for First Nations in the Bulkley Plan Area. There is a commercial fishery on the Skeena, Bulkley, and Babine Rivers as part of the Aboriginal Fishery Strategy.

1.1.9.5 Public Service Sector

The Bulkley Plan Area has a significant public sector employment and income base, with numerous federal and provincial government offices. In 1991, the Bulkley Plan Area's government, education and health sectors had a combined labour force of 1,240, equivalent to 20 per cent of the total labour force.

1.1.9.6 Hunting and Trapping Sector

There are 30-40 official traplines located within the area, although the actual number of active trappers is unknown. Trapping within the area has been a traditional activity for aboriginal residents for many years and has important cultural significance. Harvest levels tend to fluctuate widely from year to year.

Hunters seek moose, deer, small game, mountain goat, grizzly and black bear.

1.1.9.7 Recreation and Tourism Sector

The tourism industry in the Bulkley Plan Area, particularly outdoor/adventure tourism, has become a significant and growing component of the local economy. In recent years there has been an expansion of businesses catering to outdoor/adventure tourists. A 1992 study in the area identified 87 businesses that are tourist-dependent and another 83 businesses that are tourist-related. In 1995, estimated total tourism employment and employment income in the Bulkley Plan Area was 459 PYs (person years) and \$8.75 million, respectively.

Smithers serves as a base for the extensive commercial and private recreation industry in the Northwest. Natural attributes that make the area attractive to both resident and non-resident travellers include:

- High quality recreational fishing opportunities. Five fishing lodges operate on the Bulkley and Babine Rivers;
- Diverse wildlife, including grizzly bear, caribou, and goat populations which provide excellent opportunities for wildlife viewing;
- Numerous mountain ranges and valleys offering a variety of opportunities for a broad range of outdoor activities, including rock climbing, ice climbing, hiking, trail riding, snowmobiling, cross-country skiing, and downhill skiing.

Smithers serves as a base for the extensive commercial and private recreation industry in the Northwest.

These features, combined with the convenience of an airport and proximity to Highway 16, have contributed to the area's growing tourism industry. Highway 16 links the Bulkley Plan Area to major urban centres, such as Prince George, and is one of two routes to Alaska.

Historically, the tourism industry in the Smithers area has consisted of accommodation and food facilities which catered to highway travellers. This market places a high value on visual quality of the landscape. In recent years, the interest in adventure tourism has stimulated growth in the number of businesses offering unique adventure tourism products. These operations rely on a relatively unspoiled natural base. In the Smithers area, 50% of revenue for tourist-dependent business was either derived from hunting, sport fishing or wilderness activities.

Adventure tourism is increasing, with businesses in the area that offer climbing and mountaineering, dog sledding, rafting and canoeing trips, guided snowmobile tours, guided trail rides, guided hiking and backpacking, outdoor education, and guided back-country skiing. As well, a downhill ski operation on Hudson Bay Mountain attracts 50,000 users per season.

Four areas in the district receive extensive recreation use. These are the provincial park and campground at Tyhee Lake, the day use parks at Smithers Landing and Driftwood Canyon, and the Babine Mountains Recreation Area. Babine Lake and Glacier Gulch are also popular local recreation areas.

1.2 The Process

1.2.1 Process Overview

The people of the Bulkley Valley have a long history of interest in land use decisions that affect their community and environment. In 1990 the Ministry of Forests began preparing to develop a Forest Land Management Plan (FLMP) for the Bulkley Plan Area. At the same time, some members of the community stated a preference for a more consistent and concrete means of including local concerns in land use planning. This resulted in a proposal circulated in July 1991 for the formation of a Community Resources Board. An ad hoc committee produced a discussion paper on this proposal and circulated it throughout the communities of the Bulkley Forest District.

Following discussions with regional and district forests ministry staff, a community workshop was held in September, 1991 that resulted in the Bulkley Valley Community Resources Board Agreement. This proposal was ratified at a well attended public meeting in Smithers. The agreement

recommended a board of 12 local people who would represent the values and perspectives of the community (Appendix 3). Interest group representation was to be avoided. From 42 names submitted, a nominating committee chose 12 people to form the Bulkley Valley Community Resources Board (CRB). In December, 1991 members began developing terms of reference and board operating rules.

At the same time, an Interagency Planning Team (IPT) was established with representatives from the following ministries: Forests; Environment, Lands and Parks; Agriculture, Fisheries and Food; Employment and Investment (Energy and Minerals Division); and Small Business, Tourism and Culture. The federal Department of Fisheries and Oceans and the Regional District of Bulkley Nechako were also involved. The CRB and the IPT worked together to define planning principles and objectives and to outline ecologically-based planning units. A list of CRB and IPT participants can be found in Appendix 2.

In October 1992, six Technical Working Groups (TWGs) were established. These groups were comprised of board members, government agency representatives and members of the public. Their purpose was to gather information and make recommendations to the CRB on the following topics: biodiversity, range, timber supply, recreation, tourism, forest practices and economics.

During this time, the public and agencies throughout British Columbia were demanding more comprehensive, open and consensus-based land use planning processes for protected areas and integrated resource management. In March 1993, the provincial government issued the document, *Land and Resource Management Planning, A Statement of Principles and Process*. This signified a change in direction from planning driven by the Ministry of Forests (as in the FLMP), to a process that was based on the principles of public participation, interagency cooperation, full consideration of all resource values and consensus decision-making. This consensus would be recommended to government to use in drafting an LRMP. The terms of reference guiding the CRB were renegotiated in 1994 to reflect changes in government policies and initiatives (see Appendix 4).

The Bulkley LRMP process consisted of six phases that began in January 1992, concluding with the approval of this document. Implementation and monitoring of the plan will be an on-going subsequent phase over the next ten years. The overall process is outlined in the following chart:

From 42 names submitted, a nominating committee chose 12 people to form the Bulkley Valley Community Resources Board (CRB).

BULKLEY LRMP PROCESS

PHASE 1

BULKLEY VALLEY COMMUNITY RESOURCES BOARD (CRB) AND INTERAGENCY PLANNING TEAM ARE FORMED

(January, 1992)

- Define CRB Terms of Reference
- Outline ecologically-based planning units
- Establish Technical Working Groups (TWG)

PHASE 2

PUBLIC MEETINGS

(November-December, 1993)

- Assemble resource inventory data
- Prepare socio-economic profile
- TWGs prepare resource management strategies

PHASE 3

OPEN HOUSE

(January, 1994)

- CRB prepares four draft land-use scenarios
- Agencies analyze scenarios
- CRB and agencies hold a joint analysis review
- Finalize four draft scenarios

PHASE 4

OPEN HOUSE and COMMUNITY MEETINGS

(January-February, 1995)

- Summarize feedback on scenarios
- Assemble input from outside the Bulkley Plan Area
- Prepare draft Consensus Management Direction (CMD)
- Agencies analyze CMD

PHASE 5

OPEN HOUSE AND COMMUNITY MEETINGS

(May-June, 1996)

- Review public feedback on recommendation
- Review agency analyses
- CRB finalizes CMD
- Forward CMD and public feedback to Government

PHASE 6
GOVERNMENT APPROVAL
(July 1996 - March 1998)

- IAMC endorses CMD and recommends approval
- Environment and Land Use Committee (ELUC) approves CMD in principle
- Agencies prepare final LRMP in consultation with the CRB
- Ministers sign the LRMP

ONGOING PROCESS

- Implementation
- Establishment of landscape units and associated management objectives
- Monitoring to Assess LRMP compliance
- Annual Review

Implementation, monitoring and annual review will follow the preparation of the final LRMP. Landscape unit planning will assist in implementing the ecosystem network and enhanced timber development areas.

The establishment of a public board to represent community values in the Bulkley LRMP planning process was done to avoid having interest group issues dominate discussions. The Community Resources Board operated independently of government agencies.

The Ministry of Forests acted as lead agency in the process by providing technical support, funding for Board activities, meeting space and office services, and co-ordinating meetings.

While the Board was developing a consensus view of how land management should occur in the Bulkley Plan Area, agencies at three levels of government were involved in the Technical Working Groups and the IPT. Agencies with interests in land and resource management planning were invited to participate in both advisory and analytical capacities. The CRB's final Consensus Management Direction was then refined by Board members and the IPT prior to being taken to the public for comment.

Public input was a crucial part of the consensus-building process. Open house presentations were made of both the Technical Working Group recommendations (Phase 3) and the four scenarios developed by the Board (Phase 4). Each open house was held over a six-day period during the afternoon and evening, to enable as many people as possible to attend.

The Community Resources Board operated independently of government agencies.

These opportunities to view the recommendations and talk to CRB and IPT members were well-advertised through the local media, both by advertisements and through interviews with participants. At the same time, CRB members made presentations at community halls throughout the Bulkley Valley, to ensure that people had an opportunity to view and question recommendations relevant to the areas near their homes. Questionnaires were provided at both open houses, and responses were summarized (See Bulkley Land and Resource Management Plan, Volume 2: Appendices, May 1996). This enabled the CRB and IPT to determine whether they had overlooked any outstanding issues.

1.2.2 First Nations Participation

Numerous attempts were made to provide an opportunity for First Nations to become involved in the LRMP. To date, the affected First Nations have either been unable to or have chosen not to participate. However, communications regarding the progress of the plan have been maintained with them throughout the process, and will continue through implementation. The parties have confirmed they will consider entering into discussions on possible involvement in future LRMPs and other strategic planning.

The following is a summary of consultations with First Nations regarding the LRMP:

In September 1991, the Interagency Planning Team (IPT) invited the First Nations to attend a workshop to develop a public involvement process for strategic planning. Subsequently, representatives from the Gitksan and Wet'suwet'en Nations were nominated as potential members of the Board. However, they did not attend subsequent meetings when the Community Resources Board (CRB) was selected.

Throughout 1992 and 1993, the Board developed a Terms of Reference and gathered technical information for the LRMP. The Board made numerous attempts to communicate with First Nations to gain their perspectives, but was unsuccessful. The IPT then assumed responsibility for communicating with First Nations and keeping them informed. Regular updates were sent as the LRMP process progressed, and their participation was requested at each stage.

In 1995, four scenarios prepared by the CRB were presented to the First Nations. The Nat'oot'en showed some interest in becoming involved with the LRMP process at this time. Subsequent discussions with the Nat'oot'en, Wet'suwet'en, and the Gitksan were held to discuss the LRMP process to that date, and review opportunities for their involvement. The Wet'suwet'en concluded these discussions with a letter describing their desire to have a Memorandum of Understanding in place before any

involvement in the LRMP could take place. A similar letter was received from the Nat'oot'en in the fall of 1995 after they were approached to participate in a socio-economic analysis of the LRMP.

In March, 1996, meetings took place with the Tsimshian to develop a consultation process for input into the LRMP. Their Land and Resources office was only just being established and the Tsimshian indicated there was limited potential for them to become involved.

The Consensus Management Direction (CMD) was presented to all affected First Nations. In an open house format, strong support was received for the ecosystem network and wildlife maps, and the associated consideration of values. Officially, however, no response was received from any of the First Nations.

Traditional use studies to identify First Nations values and interests are underway for territories within the Bulkley Plan Area. This information, along with the resulting understandings of First Nations perspectives, could lead to their involvement in future plans and initiatives required to implement the LRMP. The Wet'suwet'en have recently signed agreements with the province concerning Land and Resources consultation.

1.2.3 Central Concepts

Management directions developed in the Bulkley LRMP are founded on the core concepts of biodiversity and sustainability.

For planning purposes, biodiversity is defined as the diversity of plants, animals and other living organisms in all their forms and levels of organization, including genes, species, ecosystems, and the evolutionary and functional processes that link them.

Sustainability was based on the following premises:

- Renewable resources include not only the timber, fish and wildlife that are harvested, hunted and trapped, and the plants on which animals forage, but also the soil, water and other naturally occurring aquatic and land-based organisms.
- To maintain the long-term sustained yield of human resources, human activities should not impair the capability of the resource base to provide a specified yield of resource products in perpetuity.
- Biological diversity is crucial to conserving renewable natural resources and to maintaining the long-term health of ecological systems. Therefore, use of a forestland area should be compatible with the maintenance of biological diversity.

- For a number of reasons, there is a great deal of uncertainty about the effects of human use of renewable forestland resources on their long-term sustained yield. Planning for the use of renewable forest land resources should take these uncertainties into account.

1.2.4 Management Principles

The land use objectives and strategies made in this document were guided by the following management principles:

- Resource activities should be ecologically responsible and managed to maintain biological diversity at the landscape unit level (a land parcel, such as a watershed, of between 10,000 and 100,000 hectares).
- Subject to the above, the economic, cultural, social and general well-being of people and communities should be the aim of managing our natural resources.
- Development should be sustainable, enabling people of the community to maintain their quality of life without compromising the needs of future generations.
- Land uses on Provincial Forest Lands in the Bulkley Plan Area should be balanced so as to provide the most long-term benefits possible to the people of the area, while recognizing the needs of the people of the province as a whole.
- One of the functions of a resource expert is to provide reliable estimates of the physical, biological and economic consequences of alternative activities, including an assessment of the uncertainties in such estimates. Whether the consequences are desirable or undesirable is a value judgement. In a democratic society, the value judgement of the expert does not merit greater weight than that of the lay person.
- Through the cooperation of the Board and the Interagency Planning Team, the preparation of the plan will benefit from the analyses provided by provincial agency personnel and others, and the reliable application of community values in the design of the LRMP.

1.2.5 Initial Scenarios

During the fall of 1994, CRB members went through a mapping exercise in order to see how their divergent visions of land and resource management would be represented on the landscape. The four resulting scenarios demonstrated different combinations of management alternatives. The social, environmental and economic impacts of these scenarios were analyzed. As well, the maps were displayed to the public and accompanied by a questionnaire soliciting opinions on all aspects of the scenarios.

CRB members considered all this information, including objections to the complexity of the scenarios, while formulating the consensus for the Land and Resource Management Plan. In order to reduce this perceived

complexity, the Board, in consultation with the IPT, chose a more strategic approach for their final recommendation.

While the consensus contains components from each of the four scenarios, it does not greatly resemble any one of the initial maps.



The landbase of the Bulkley Plan Area is allocated into six Resource Management Zones

2.0 Consensus Management Direction

The Community Resources Board developed four levels of management direction. Taken together, these levels fully reflect the vision for land and resource management in the Bulkley Plan Area. These levels include:

1. General Management Direction;
2. Resource Management Zones;
3. Ecosystem network and Enhanced timber development areas; and,
4. Planning Unit Management Direction.

Eleven categories of General Management Direction have been established that apply to all agencies, resources and activities throughout the Bulkley Plan Area.

The landbase of the Bulkley Plan Area is allocated into six Resource Management Zones (RMZ), which are distinct with respect to biophysical characteristics, resource issues or management direction. They are: Protected, Special Management 1 and 2, Integrated Resource Management, Settlement, and Agriculture/Wildlife.

Direction to more detailed planning is achieved by implementing an Ecosystem network and Enhanced timber development areas. Further direction is achieved by sub-dividing the Plan Area into 12 Planning Units, each of which will be managed on a sustainable basis. The goal is to balance land use activities across all planning units.

2.1 General Management Direction

Eleven categories of General Management Direction have been established that apply to all agencies, resources and activities throughout the Bulkley Plan Area. They are: biodiversity, access, timber, water quality, fish and wildlife habitat, visual quality, range, outdoor recreation and tourism, subsurface resources, cultural heritage resources and future planning processes. The management directions contained in these categories reflect the needs and interests of all users and values, and complement each other. They are enhanced and supported by an array of legislation, policies, processes and operational guidelines of the land and resource agencies.

New initiatives that affect land management in the Bulkley Plan Area, and more detailed levels of planning by agencies responsible for implementing the LRMP, should be consistent with the general management directions

outlined in this plan. Priority will be given to maintaining existing tenures when new land use decisions are contemplated pursuant to the LRMP.

2.1.1 Biodiversity

The maintenance of biodiversity is an underlying objective of land and resource management at all levels of management. Within the Bulkley Plan Area these include, but are not limited to: the district level, the planning unit level and the stand level. As well, the guidance for biodiversity set out by the Forest Practices Code is based on the assumption that the more that managed forests resemble those forests established through natural disturbances such as fire, the greater the probability that all native species and ecological processes will be maintained.

Biodiversity will be managed at the landscape level over the entire district, and will provide management objectives and strategies for the following:

- ecosystem representation within the Ecosystem network and Protected Areas;
- retention of old growth;
- seral stage distribution;
- landscape connectivity;
- stand structure;
- species composition;
- temporal and spatial distribution of cutblocks;
- endangered plant and animal life;
- designation of sensitive areas;
- special management or protection status of specific areas; and,
- varied stocking densities and patterns.

Objectives to guide the management of the above will be defined as part of more technically-driven Landscape Unit plans which will be established throughout the Bulkley Plan Area. Inventory maps collected to assist in this LRMP process will be reviewed and incorporated into Landscape Unit plans, following implementation of this LRMP.

2.1.2 Access

Road development is required to access the resources within a land base, including timber, minerals, range and recreational destinations. This plan allows opportunities for access to resources outside Protected Areas, subject to the constraints identified under specific planning unit directions.

Managing recreational access is important to provide a variety of experiences and to minimize the impact of human disturbance on fish,

The maintenance of biodiversity is an underlying objective of land and resource management at all levels of management.

wildlife, and other environmental resources. A strategic Recreational Access Management Plan (RAMP) is required for the Bulkley Plan Area to assist in meeting this objective. Input by various interest groups and lead agencies will assist in developing the RAMP.

The RAMP will address motorized and non-motorized access for both on-road and off-road vehicles, especially in terrain sensitive to site degradation by off-road vehicles. It will consider regulated motorized access in areas containing resource values that will be negatively impacted in the absence of regulation, and identify enforcement provisions that may be required. In addition, conflicts such as those between snowmobiling and back-country skiing will be resolved for example, by designating some areas for exclusive use.

2.1.2.1 Circle Routes

Circular routes within the Bulkley Plan Area and connecting to adjacent districts can be potentially detrimental and should be discouraged wherever possible. This applies particularly when other values are paramount.

Examples of potential problems include:

- additional traffic and hunting pressures, and
- greater difficulty in hunting regulation enforcement

The Board will participate in ensuring opportunities for public input will be provided on any future agency plans for circular access routes.

Specific concerns have been identified in the following planning units: 2-2 Babine River (connector to Kispiox District), 4 Harold Price, 5 Blunt, 12 Copper, 2-3 Babine (connector from Fort Babine to the Morice District), 6 Deep Creek, 9 Kitseguella, and 11 Telkwa.

2.1.2.2 Sensitive Terrain

Terrain deemed sensitive to site degradation by off-road vehicles may include land in the alpine and subalpine, sensitive wetlands and designated recreational trails. These areas may support slow-growing plants which are very sensitive to disturbance, or have soils which can be easily damaged and eroded. The following direction applies:

- snowmobiles are permitted except where otherwise specified in the RAMP
- ATV will be permitted on identified hard surface roads and trails only (in sensitive terrain);
- road deactivation to minimize off-road vehicle damage to fragile ecosystems may be necessary in some circumstances.

2.1.2.3 Lakes

A full spectrum of access possibilities to lake resources, ranging from no access to full access, is required across the Bulkley Plan Area. The general management direction is that recreational opportunities on currently accessed lakes will be maintained. The Landscape Unit planning process will identify lakes that should remain in semi-primitive or primitive settings based on Resource Management Zone objectives; biophysical attributes, and the Lake Classification Guidebook (Forest Practices Code).

2.1.3 Timber Management

The general management objective for timber resources is to maintain a sustainable supply of timber for the communities within the Bulkley Plan Area. The approach to achieving this involves adherence to timber harvesting guidelines of the Forest Practices Code and use of the Forest Land Reserve to retain timber land in production.

Timber harvesting and silvicultural practices in the Special Management Zones and Ecosystem network will be modified to meet management objectives. Managing forest health in all Resource Management Zones will continue, but acceptable forest health practices may be constrained by overriding objectives of the zone. For example: restricting access, maintaining visual and water quality or maintaining forest interior conditions.

2.1.4 Water Quality

Maintaining water quality in the Bulkley Plan Area is important for many reasons, including the maintenance of fish habitat and the production of clean, potable water within community watersheds. Guidelines to maintain water quality outlined in the *Forest Practices Code Act* and other relevant legislation and policy will be followed to ensure the existence of acceptable levels of water quality. In addition, agencies are directed to take the following actions:

- Ensure water quality is given special care in forest development plans;
- Ensure special attention is given to water quality in creeks with water licenses;
- Ensure community watersheds are recognized and mapped;
- Ensure that when agencies are assessing any projects affecting drainages associated with the Bulkley Plan Area (such as bulk water diversion or hydro-electric projects), those agencies will consult with the Board and the public; and,
- Ensure that rehabilitation of impacted watersheds will be conducted under joint agreement between relevant agencies.

2.1.5 Fish and Wildlife Habitat

General management direction is designed to conserve the wide abundance of all fish and wildlife habitats and populations in the Plan Area.

Critical wildlife habitats will be managed to maintain habitat values including habitats currently identified through this LRMP process, and areas yet to be identified under the Forest Practices Code as wildlife habitat areas.

In addition, agencies will follow guidelines set out in the Forest Practices Code and other existing legislation and policy on species and habitat management. Existing critical habitat inventory maps and prescriptions developed by the Technical Working Groups in this LRMP process will be reviewed as part of the Landscape Unit Planning process and in operational planning.

BC Environment will collect 1:50,000 habitat inventories for areas where this information is not currently available, and in areas where specific species have been identified as a priority for management.

Landscape unit planning will recognize and prescribe management in a way that protects critical spawning areas, by maintaining or restoring near-natural patterns of seasonal flows.

2.1.6 Visual Quality

The scenic resources of the Bulkley Plan Area are critical to the viability of the tourism / recreation sector and to the quality of life of area residents. Scenic quality is a major factor in recreational use, and forest landscapes often provide the scenic backdrop so highly valued by the public and tourism industry. Since timber harvesting is usually the primary factor causing visual quality changes to the landscape, partial cutting and creative block design will be used to minimize the impacts to the timber supply.

Objectives to manage the scenic resources will be identified in the landscape unit plan, with special attention given to the following areas:

- major corridors;
- recreation focus points; and,
- specific viewpoints.

Specific viewpoints have been identified in the Planning Unit Management Directions section of this document. All development, not solely timber, shall consider these viewpoints in their plans for development.

This LRMP recognizes that there may be situations in which circumstances such as forest pest infestations, fires or major windthrow events require reassessment or waiving of visual requirements. Any permitted developments in a zone, such as mineral development, will be designed to minimize impact on visual quality objectives for the affected zone. Visual quality modifications may be made as a result of formal development review and approval processes.

2.1.7 Range Management

Guidelines set out in the *Forest Practices Code Act* and other existing legislation and policy will be followed.

Full use of existing range tenures will be encouraged. Expansions into currently unused areas will be reviewed by the Board, agencies and public as part of the established planning process.

2.1.8 Outdoor Recreation and Tourism

Tourism and outdoor recreation is a growing industry in the Bulkley Plan Area. It is thus very important to manage this resource to maintain or enhance opportunities for a diverse range of recreational values and uses across the biophysical settings of the area.

In addition to applying the guidelines in the Forest Practices Code and other existing legislation and policy, agencies will:

- Identify and consider areas of scenic values in landscape unit plans;
- Identify and provide opportunities for future backcountry tourism
- development on Crown Land according to provincial regulations and guided by the government's commercial backcountry recreation policy in all areas except as identified in Specific Management Directions.
- Agencies, affected tenure holders, and local user groups will be requested to provide input and assist in the management of existing and new recreation sites and trails. This includes the official establishment of recreation trails under the *Forest Practices Code of B.C. Act*
- Identify snowmobile trails through forest plantations in areas of conflict.

2.1.9 Subsurface Resources

General management direction is to provide opportunity for the safe, efficient and environmentally sound development and use of the energy and mineral resources for the economic benefit of the Bulkley Plan Area and the province.

Subsurface resource exploration and mine development may take place according to provincial regulations and the LRMP in all areas except in Protected Areas. Methods to reduce potential impacts on special resource values in a zone will be identified through proposal review processes. Some modifications may be made to special values in a zone as a result of an approved development.

For proposed major mine developments, zone objectives will be addressed by the Environmental Assessment Process. For small mine and quarry developments, zone objectives will be addressed by the multi-agency regional mine development review process.

The *Environmental Assessment Act* established a process under the Environmental Assessment Office for the assessment of environmental, social, economic, cultural heritage and health effects of a variety of major development projects in B.C. Projects are evaluated and methods to prevent or mitigate adverse effects are established in this process. Approved land use plans are used to inform the project committees in review of projects and determination of any special requirement.

Mining projects which fall below the threshold for review under the Environmental Assessment Act are subject to a Regional Mine Development Review Committee (RMDRC) process established under the Mines Act. Project examples are mineral mines producing less than 25,000 tonnes per year. Major mining projects certified under the *Environmental Assessment Act* also require permits under the *Mines Act* and are subject to the RMDRC review process.

2.1.10 Cultural Heritage Resources

Today the land base contains archaeological resources, reflecting past and present human use. This LRMP recognizes the importance of these sites, and will ensure that agencies will minimize the impact of development on both archaeological and traditional use sites.

This plan is consistent with:

- the *Heritage Conservation Act*, which allows for an area to be preserved;
- the *Forest Practices Code Act* provisions which identify when archaeological inventories are required prior to development; and
- the Protocol Agreement on the Management of Cultural Heritage Resources. It is also consistent with the British Columbia Archaeological Impact Assessment Guidelines.

Prescriptions resulting from Archaeological Overview Assessments which provide guidance for the management of archaeological and traditional use

sites will be incorporated into more detailed plans. This information may be refined to the 1:50 000 or 1:20 000 scale.

Consultations with First Nations on development plans will also be carried out, guided by consultation protocols.

Refer to **Appendix 6** for a description of cultural heritage resources.

2.1.11 Future Planning Processes

All future land and resource-oriented planning processes undertaken in the Bulkley Plan Area will provide opportunities for local community groups and individual input, especially targeting those directly affected. Future plans will ensure that zoning and associated terminology in all more detailed plans is consistent with this LRMP. As well, future planning processes will consider input from adjacent LRMPs, and convey the management intent of special management areas which share common boundaries.

Resource management zones are used to designate land within the Bulkley Plan Area for distinct uses or values.

2.2 Resource Management Zones

Resource management zones are used to designate land within the Bulkley Plan Area for distinct uses or values. Objectives for each resource management zone indicate these values. More detailed management direction has been given to clarify the intended focus for management within these areas, as well as identify acceptable activities that complement achieving the intended objectives.

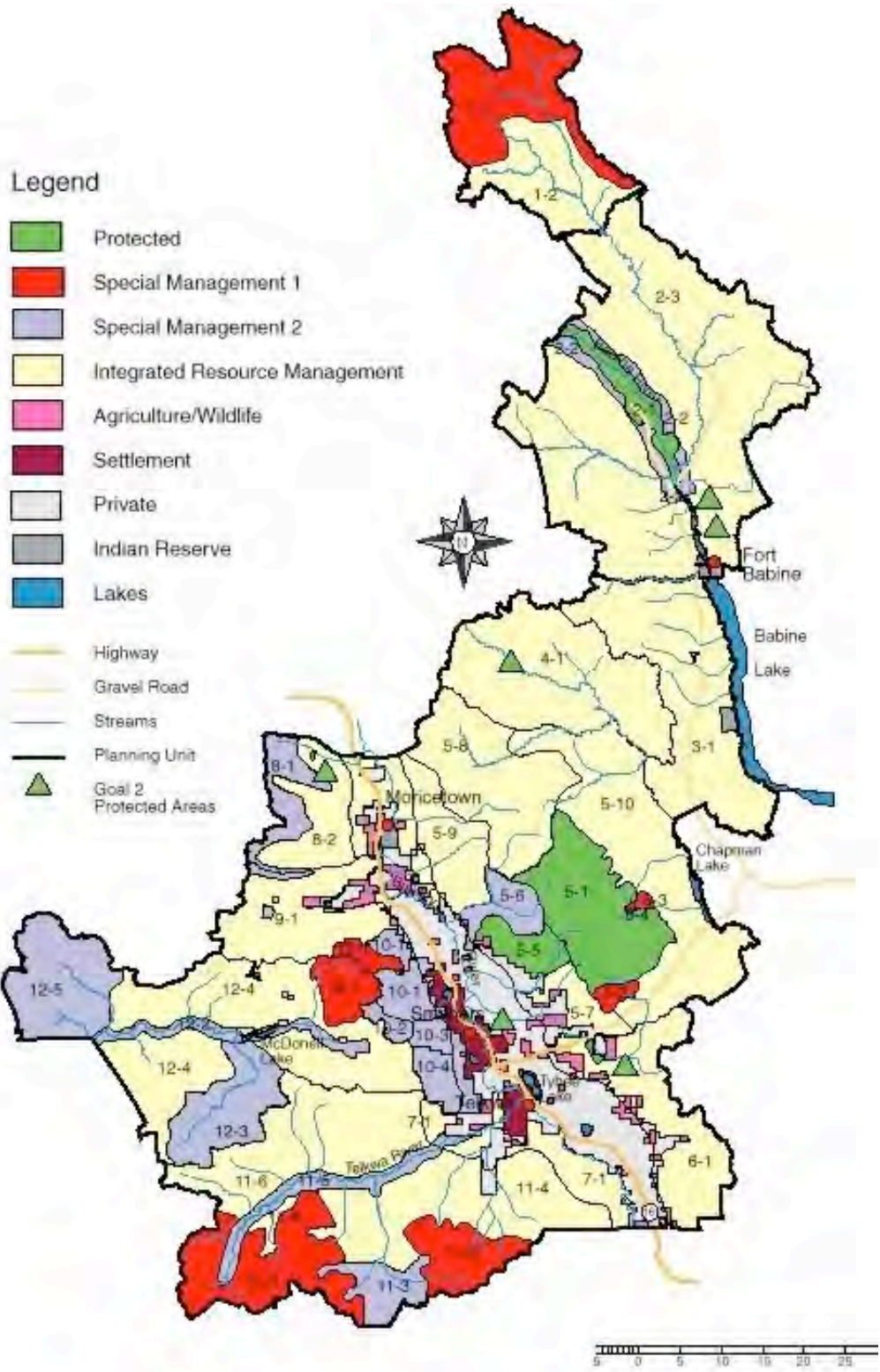
The management direction identified for each Resource Management Zone apply to all agencies with resource and land management responsibilities. They are enabled and complemented by a wide array of legislation, policies, processes and operational guidelines.

In order to identify the level of management and allowable activities throughout the Bulkley Plan Area, the following types of resource management zones are established:

- Protected (5%)
- Special Management 1 (8%)
- Special Management 2 (13%)
- Integrated Resource Management (64%)
- Agriculture/Wildlife (2%)
- Settlement (1%)

Most areas fall into one of the first four zones. The remaining two zones cover the heavily populated Bulkley Valley, which mostly falls within Planning Unit 7 (with a few small overlaps into other planning units).

Bulkley Plan Area Resource Management Zones



2.2.1 Protected (P)

This zone identifies areas for their ecological, cultural, heritage and/or recreation values in accordance with the provincial Protected Areas Strategy (PAS) objectives for Goal 1 and Goal 2. Industrial exploration or extraction is not allowed. Other activities are guided by Cabinet-approved policy on acceptable uses in Protected Areas.

The government's inter-agency Regional Protected Areas Team (RPAT) provided technical input to the LRMP which assisted in identifying special areas for potential protection under the Protected Areas Strategy (PAS). Both Goal 1 (protection of representative landscapes) and Goal 2 objectives (protection of special features) of the PAS have been addressed for these special areas using a combination of zoning strategies and planning directions.

Goal 1 objectives were achieved by selecting certain areas for protection. In addition, representative landscapes have been identified for special management in SM Zones and in the recommended ecosystem network. Goal 2 objectives were achieved by designating small special features such as bogs and waterfalls for protection.

Protected areas have full legislative protection with officially designated boundaries under the *Park Act* and the *Ecological Reserves Act*.

Each legislated Protected Area is intended to have a formal Management Plan or framework statement identifying management objectives and acceptable human activities. Although this plan provides management direction for each Protected Area, more detailed objectives and strategies will be considered as part of the management planning process.

Two large areas of the Bulkley Plan Area are protected in accordance with Goal 1 objectives of the provincial Protected Areas Strategy. They are the Babine Mountains Recreation Area (including the Driftwood Recreation Extension) and the Babine River Corridor. Boundaries of the current Babine Mountains Recreation Area have been re-drawn and the entire revised area, including the extension, will be designated as a provincial park.

Six smaller areas are protected in accordance with the Goal 2 objectives of the provincial Protected Areas Strategy. They are:

1. **Burnt Cabin Bog** (49k)(646 ha) (MAP): a provincially unique low moor bog.
2. **Boulder Creek** (35k)(48 ha) (MAP): an old growth interior wet coniferous forest. It is a coastal-like forest in an interior environment having spruce hybrids and amabilis fir.

3. **Netalzul Meadow and Waterfall** (37k)(339 ha) (MAP): an unusual shrub-carr and wet meadow in a sub-boreal forest. It supports rare plant species, breeding birds and includes a spectacular waterfall.
4. **Nilkitkwa Lake Sites** (37k)(7.5 ha) (MAP): recreation use sites.
5. **Rainbow Alley** (46k)(96 ha) (MAP): which has biologically exceptional, high fisheries values for rainbow trout. It has high recreation values, and is a breeding area for the American bittern, a blue-listed species.
6. **Call Lake** (46k)(62 ha) (MAP): includes a small lake and wetland, and a remnant of the Sub Boreal Spruce dry cool - Juniper - Scrub ecosystem, and has a high diversity of flowering plants.

Bulkley Plan Area by Resource Management Zone

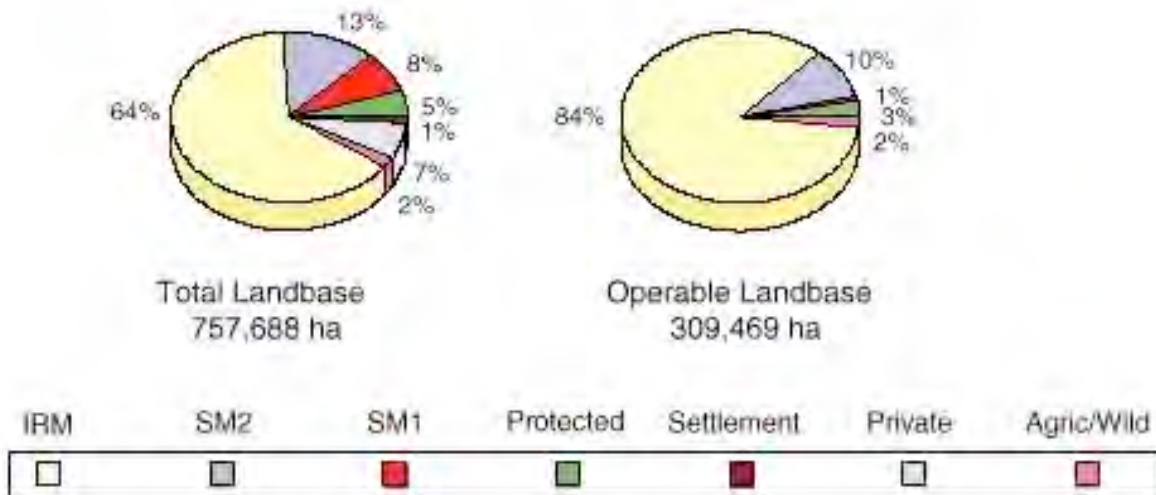


Figure 1. Bulkley Plan Area by Resource Management Zone

2.2.2 Special Management Zones

Throughout the Bulkley Plan Area, there are places where special care must be taken to maintain identified natural resource values. These areas have been identified as Special Management Zones.

Key values for which Special Management designations have been made include specific wildlife or ecological concerns, significant recreation

opportunities, visual and soils sensitivity, and commercial hunting, guiding or fishing opportunities.

2.2.2.1 Special Management 1 (SM1)

Areas designated as SM1 Zones exclude all industrial activities except mineral exploration and mining. Timber harvesting is not allowed. Removal of trees is permitted only where required for approved mining exploration and development purposes, including access, and for other activities consistent with objectives and specific direction for management stated in each of the planning units and sub units.

This zone recognizes that because of the hidden nature of mineral resources, exploration requires a large landbase. It further recognizes that mineral exploration and mine development can occur in areas where wildlife, scenic, and recreation values are high. However, only fly-in access or use of existing roads is permitted for the early stages of exploration. All roads will be permanently deactivated when exploration or mining has been discontinued.

Future landscape unit plans for the forest district will include SM1 areas and will address specific management requirements of each SM1 area. These areas will not be designated as Protected Areas.

2.2.2.2 Special Management 2 (SM2)

Areas designated as SM2 Zones allow industrial activity. Industrial activities will be carried out sensitively to ensure that impacts on identified values, such as visual quality, wildlife habitat, recreation or sensitive soils, are minimized. Where impacts occur they will be mitigated through agency review and approval processes.

These SM2 areas will be included in landscape level planning with resultant detailed management prescriptions for each zone. These plans will be presented to the Board, agencies and public for review prior to implementation.

2.2.3 Integrated Resource Management (IRM)

The objective of the Integrated Resource Management Zone is to recognize a full range of resource values and activities, including timber harvesting, mining, grazing, tourism, wildlife and recreation. No single value or activity is identified as having the highest priority for management.

It is recognized that with careful planning, two or more resources can be managed compatibly on the same landbase within an IRM Zone. One example of this is an outdoor recreation activity such as snowmobiling or ski touring within logged areas.

It is recognized that with careful planning, two or more resources can be managed compatibly on the same landbase within an IRM Zone.

2.2.4 Settlement Zone (S)

The Settlement Zone is intended to recognize land that has been identified by local government in an Official Community Plan. In this LRMP, it only refers to Crown land surrounding the communities of Smithers and Telkwa, although the majority of land within this zone is privately owned. The objective of this zone is to identify land already in use or potentially suitable for future residential, commercial and industrial development. It is primarily planned and managed by local governments under the *Municipal Act*.

2.2.5 Agriculture/Wildlife Zone (A/W)

This zone identifies Crown land in the Agricultural Land Reserve, with good agricultural capabilities and which also has good wildlife habitat. Management direction in this zone is intended to promote agriculture while ensuring that wildlife habitat is also provided. This zone will also protect potential agricultural Crown land within the Bulkley Valley Planning Unit (P.U. 7).

Management direction in this zone must protect agricultural development while ensuring that wildlife habitat is provided. As well, the potential agriculture Crown land within the Bulkley Valley Planning Unit (P.U. 7) will be retained.

Land use and existing boundaries were evaluated considering agriculture, wildlife, grazing, woodlots, agricultural land reserve, provincial forest and potential forest land reserve. Areas under grazing leases are included in this zone, while areas under grazing permits and licences are not.

Coffin Lake and Evelyn Pasture have not been included in this zone, even though these two areas are in the Bulkley Valley. They were identified as having good agriculture capability but low current potential for development within the next 10 years. They are located within the Agricultural Land Reserve (ALR) and also contain important wildlife habitat, extensive silviculture investments, and grazing values. To provide an opportunity for agriculture expansion beyond the 10-year-time horizon of this LRMP, replaceable Woodlot Licences will be discouraged in these two areas.

BC Lands will continue to evaluate future agriculture lease applications within this zone consistent with its policy to incorporate provisions for the management of non-agricultural values. While the goal is to exclude sections of good moose winter range that lie close to the IRM Zone boundary, it is recognized that most of the best ungulate winter range is located in the valley bottom.

It is envisioned that within this zone, land parcels supporting important wildlife habitat will be deleted from the lease area.

Grazing Permits and Grazing Licenses issued by the Forest Service were assumed to be compatible with the objectives and strategies of the A/W and IRM Zones. Therefore, these permits and licenses were not used to define the boundary. All Grazing Leases issued under the Land Act, however, are included in the A/W Zone.

Ministry of Forests Woodlot License proposals were considered in establishing the A/W Zone boundary. Since the goal of long-term forest management is not compatible with land clearing for agriculture, the Woodlot License proposals were amended to exclude potential woodlot land from the A/W Zone.

A boundary change will not be proposed to the Agricultural Land Commission. The ALR was designated to preserve the agricultural capability of the land “in perpetuity”. Since Coffin Lake and Evelyn Pasture have generally good agriculture capability, they will remain in the ALR even though there is no current demand or opportunity for agricultural development.

2.3 Directions to More Detailed Planning

In addition to Resource Management Zones, the Bulkley LRMP contains directions to more detailed planning in the form of an ecosystem network (EN) and enhanced timber development (ETD) areas. These areas are not intended to have legislated boundaries; rather, their borders are deliberately flexible to allow adjustment by the Ministry of Forests district manager and designated environment official. The Ministry of Employment and Investment, Energy and Minerals Division, will be consulted on any boundary changes.

The Forest Practices Code provides for the establishment of landscape units and associated objectives. This section provides important input to that process.

Some conditions which may warrant shifting the boundaries of these areas include:

- Acquisition of more specific ecological information;
- Impact on EN objectives through extensive mining exploration or development; and,
- Provision of site information or results of long-term monitoring.

2.3.1 Ecosystem Network (EN)

An ecosystem network (EN) of core ecosystems and landscape corridors extends throughout the Plan Area in all planning units, in order to maintain connectivity and to provide a representative cross-section of ecosystems (Figure 9). The emphasis is on protecting and enhancing biodiversity and wildlife habitat within this network.

Management activities will range from no logging to modified harvesting practices. A higher degree of human use and modification is permitted within landscape corridors than within core ecosystems. Should mineral activities proceed to the point where the objective of the ecosystem network is impacted, alternate representative core ecosystems or landscape corridors will be located where available. Unique ecosystems may be recognized and designated as Sensitive Areas or Wildlife Habitat Areas, through provisions of the Forest Practices Code. Management activities and acceptable impacts on the land base and timber supply will be consistent with this LRMP.

Boundaries are fluid and will be refined at more detailed planning processes. The ecosystem network mapped on Crown land within the Agriculture/Wildlife Zone will remain for planning purposes, but will not be fully implemented until more detailed information is collected, and more detailed planning occurs.

2.3.1.1 Core Ecosystems

The purpose of core ecosystems is to protect values by providing representation of a cross-section of ecosystems, by retaining representative samples of old growth forests, and by providing forest-interior conditions.

Mineral exploration may take place within core ecosystems. Should development proceed to the stage where there is an impact to core ecosystem objectives, alternative representative core ecosystems will be designated where available.

Management activities (such as logging for beetle control or prescribed burning) that occur within core ecosystems, must be for the purpose of protecting the integrity and function of the ecosystem. The following are examples of management activities that could meet core ecosystem objectives:

- no logging;
- longer logging rotations (e.g. to create and maintain older pine stands);
- modified harvest practices (e.g. for example, single tree selection to maintain old growth structure, or small openings to create or maintain early seral conditions);
- prescribed fire (e.g. to create early seral conditions or maintain non-forest ecosystems) .

Operating procedures will be developed by relevant agency staff. The Board and public will have the opportunity to review and comment on these activities.

Existing grazing tenures will be respected but no new tenures will be issued. Where core ecosystems are within the ALR, other agricultural uses are permitted providing these uses are compatible with ecosystem objectives. Low impact recreation and tourism are permitted as long as they are also compatible with the objectives. Existing recreational uses and facilities will be respected.

2.3.1.2 Landscape corridors

Landscape corridors are designed to maintain connectivity within the landscape, reduce habitat fragmentation, permit movement and dispersal of plant and animal species, and maintain, within a managed forest setting, forests dominated by mature tree cover and containing most of the structure, function, micro-climatic conditions and biota associated with old growth forests.

Corridor widths will be flexible enough to take advantage of local opportunities to protect and enhance biological diversity and wildlife habitat. As well, connectivity may not be required in all cases if a better opportunity to maintain older forest conditions and reduce fragmentation exists outside the corridor.

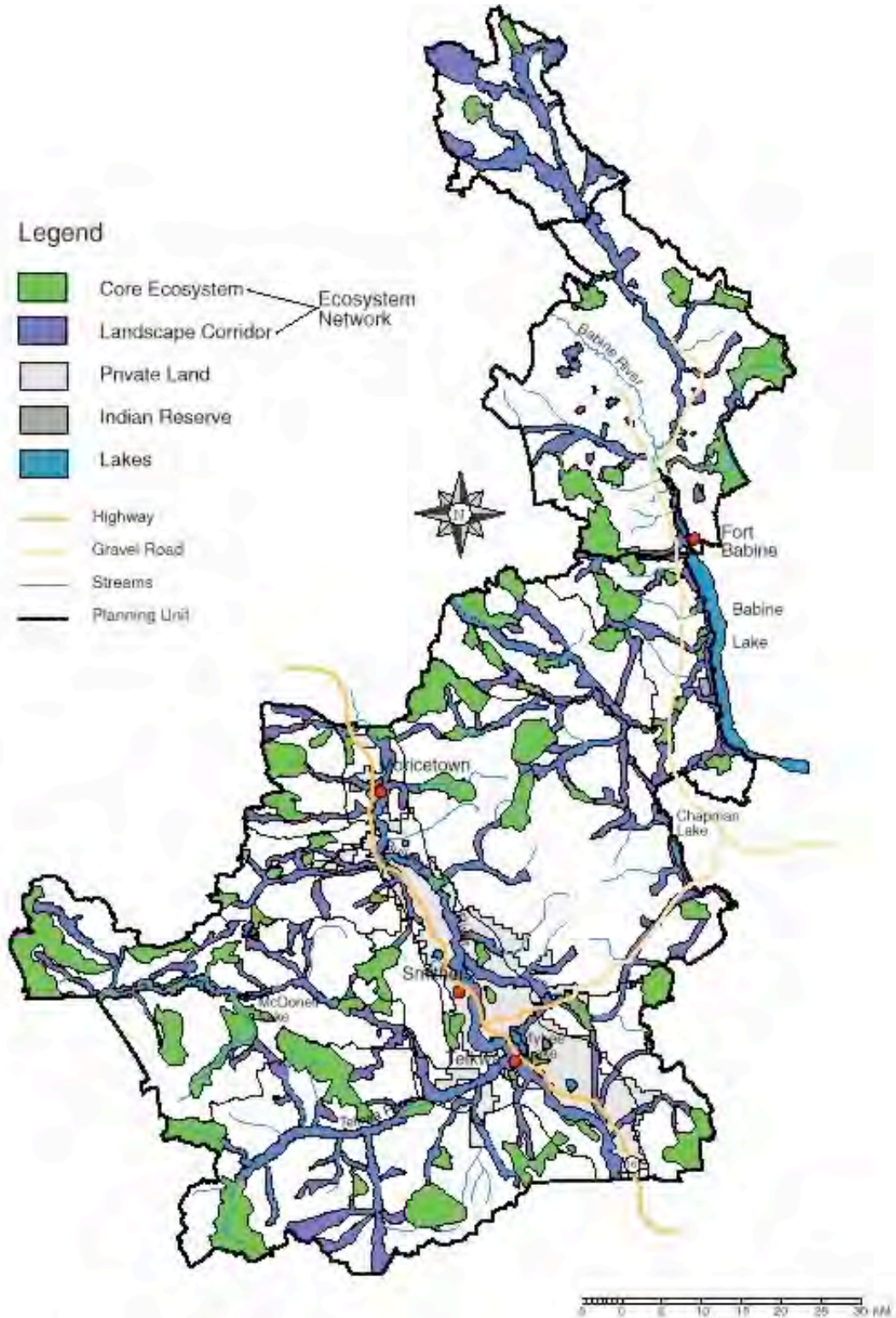
Industrial, agricultural, recreational and tourism activities are permitted as long as they are compatible with the objectives of the landscape corridor.

The guideline for management within landscape corridors is to maintain 70 per cent of the existing structure and function of the forest within these corridors. However, alternatives will be considered where it may be more suitable or equally effective for meeting the biological objectives of the corridor.

Management prescriptions and objectives for the various corridor forest types will be developed and approved by the district manager and designated environment official. For example, a mixture of small patch and selection harvesting systems will be managed within the corridors.

The degree of flexibility permitted in management prescriptions will reflect the extent to which biodiversity attributes are being maintained in the landscape surrounding the corridor. Therefore, if a large amount of structurally diverse, older forest is maintained adjacent to the corridor, then the rules within the corridor will be less strict than if the adjacent lands were highly modified young forests.

Bulkley Plan Area
Direction to More Detailed Plans
Ecosystem Network



Field monitoring will be required to determine whether the biodiversity objectives of the corridors are being met. Management prescriptions will be reviewed and modified if necessary to reflect the results of monitoring.

2.3.2 Enhanced Timber Development (ETD) Areas

The objectives of enhanced timber development areas (ETD) are to enhance the available timber supply and improve timber quality, thereby increasing revenue and employment opportunities. Intensive silviculture management funds will be invested into these areas.

Enhanced timber development areas are well-distributed only throughout the Integrated Resource Management Zone (IRM) in small, non-contiguous sites on 15 to 20% of the operable landbase (Figure 10). They are located only on stable, non-sensitive soils, and have a high potential for timber growth. In these areas, timber has emphasis over other resources and uses, but conflicts with them must be low. In fact, visual sensitivity will be upheld where noted.

The ETD areas will be evaluated in regard to their effects on biodiversity, employment benefits to the community, and on timber production.

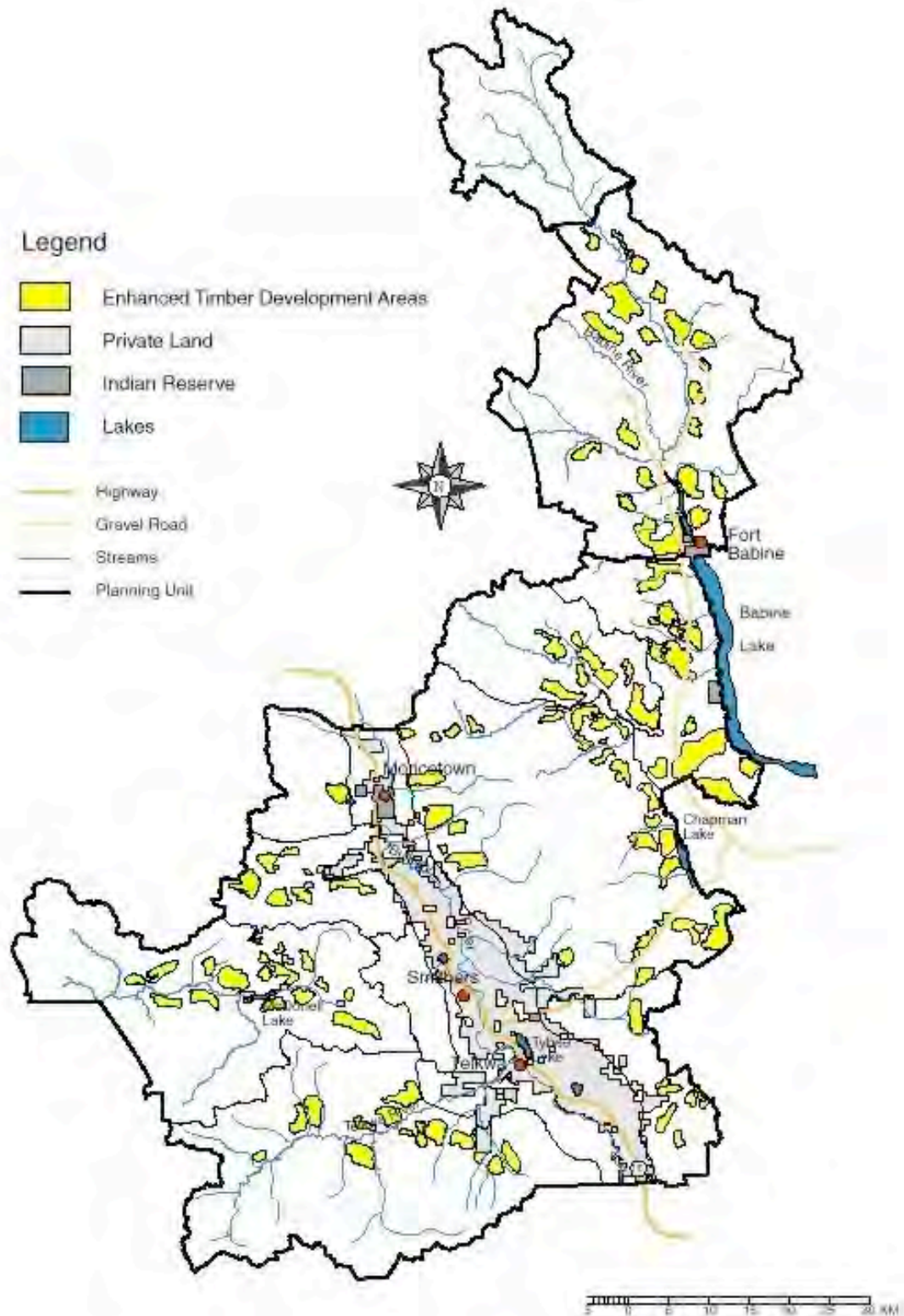
The management intent is that intensive silviculture will be practiced on all ETD areas. This may include using genetically improved seed or superior planting stock, or carrying out pre-commercial and commercial thinning, pruning, fertilizing, or intensive brushing and weeding. Intensive silviculture should result in a shorter timber rotation age and/or an increased yield per hectare over time. This does not preclude practicing intensive silviculture outside ETD areas, as it is often compatible with other management strategies.

Less emphasis will be placed on biodiversity at the stand level in ETD areas than in special management or IRM zones. However, the following stand level considerations will apply:

- the requirements for wildlife tree patches will be achieved in accordance with the Biodiversity Guidebook;
- specific areas identified at the stand level as high wildlife use areas will be managed to maintain the values; and,
- the ETD areas will be included in vegetation management strategies developed for the district.

The management intent is that intensive silviculture will be practiced on all ETD areas.

Bulkley Plan Area
Direction to More Detailed Plans
Enhanced Timber Development Areas



Bulkley Plan Area Planning Units



The goal is to balance land use activities across all planning units.

2.4 Planning Unit Management Directions

The Bulkley Plan Area has been divided into 12 Planning Units, some of which are further classified into sub-units to address unique concerns and values within particular landscapes. As an over-riding management direction, each planning unit will be managed on a sustainable basis. The goal is to balance land use activities across all planning units.

Management objectives and strategies have been developed for each planning unit, and are consistent with the intent of the zones. Where specific resource values are not indicated, general management objectives and direction will apply (see Section 2.1, General Management Directions).

Note that any development within Special Management Zones must minimize impacts on the identified major values in the sub-unit (e.g. goat and grizzly bear habitat, water quality and visual quality). Mineral exploration and development is the only industrial activity permitted in the SM1 zone.

Management requirements for each of the 12 planning units or sub-units are described according to the categories of general management direction identified in Section 2.1, namely biodiversity, access, timber, water quality, fish and wildlife habitat, visual quality, range, outdoor recreation and tourism, subsurface resources, cultural heritage resources, and future planning processes.

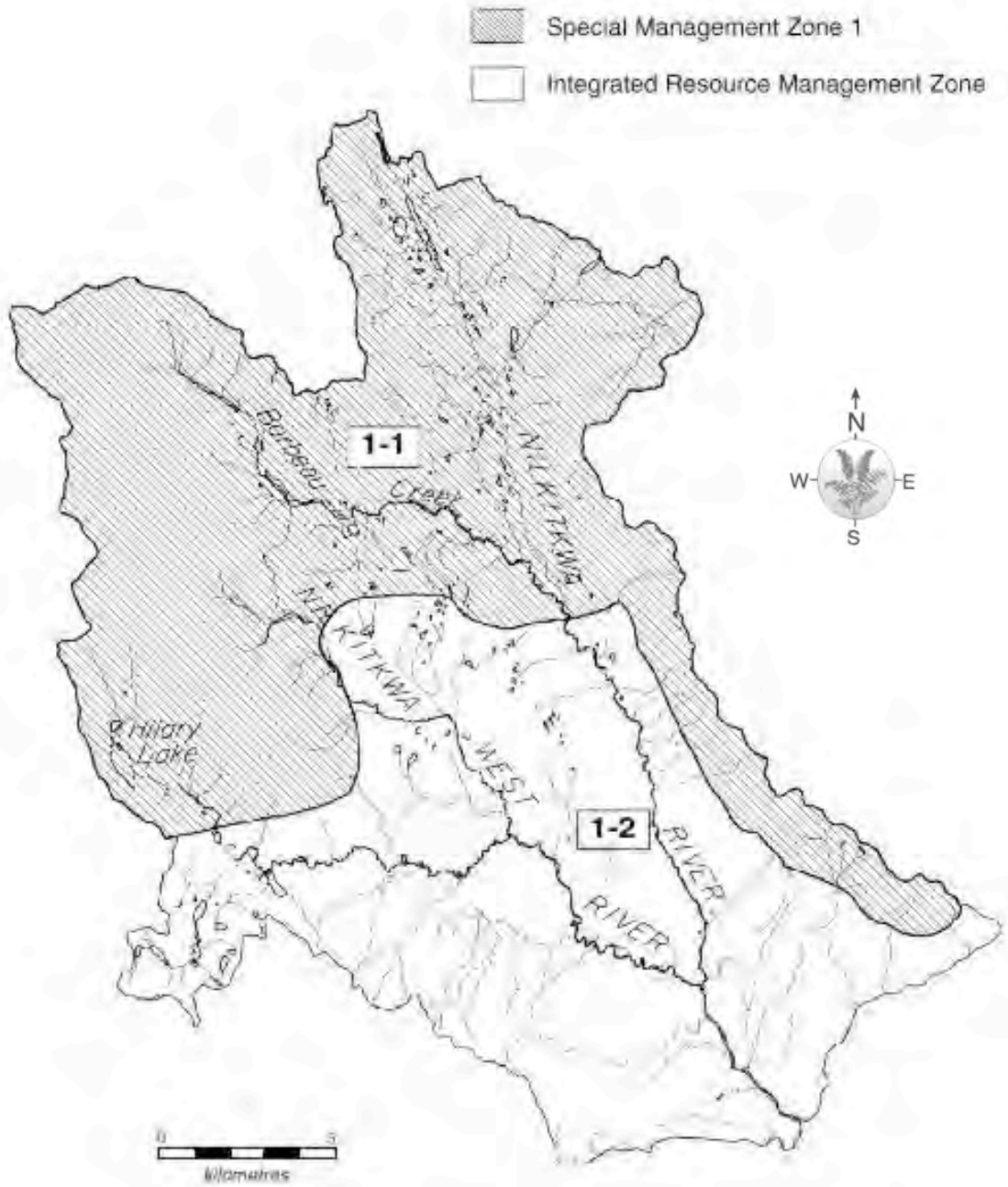
2.4.1 Planning Unit 1: Upper Nilkitkwa

The Upper Nilkitkwa covers 42,937 hectares. This unit is classified as 100% Primitive according to the Recreation Opportunity Spectrum. There are several opportunities for recreation including: high quality backpacking in the Shelagyote Range; canoeing and kayaking along the Nilkitkwa River; trails into the icefields of the Sicintine Range; and Hilary Lake (a high alpine lake) As well, a small cabin on Onerka Lake is utilized by the guide/outfitter for fly-in trips.

This unit falls within the traditional territory of the Gitksan and Nat'oot'en First Nations. Currently, there are no settled lands here. Road access has entered the southern portion of the unit, with plans for further development.

Important habitat types in the Upper Nilkitkwa include numerous wetlands, streamside riparian areas and adjacent upland forests, avalanche chutes, deciduous forest types, and brush complexes. The relative importance of wildlife in this unit is moderate (as compared to other units in the Bulkley Plan Area). Mountain goats can be found in the Sicintine and Bait Ranges. The populations are reported to be stable although

Planning Unit 1: Nilkitkwa



localized declines have occurred as a result of increased access (Ministry of Environment, Lands and Parks: BC Environment, January 1995).

Grizzly bears den in the subalpine areas of the mountains and forage in slides. They also use Nilkitkwa River as a travel corridor to the Babine River, which supports a provincially significant population of grizzly bears and black bears. In the Sub-Boreal Spruce biogeoclimatic zone, grizzlies typically utilize riparian and wet forest throughout their range during summer. Moose use this unit in the summer to fall months. Moose prefer areas of disturbance, particularly within riparian areas and forest habitats in early successional stages.

There are moderate values for spawning, rearing and water quality present. Resident fish are found in the Nilkitkwa River and its tributaries, and in Hilary Lake. Salmonids are found in the Nilkitkwa River and the lower reaches of its tributaries, and in Onerka Lake where they spawn and rear.

Twenty-five percent of the Nilkitkwa Planning Unit is considered to be operable. This comprises 3.4% of the Bulkley Plan Area's operable landbase. The quality of the timber is considered to be marginal sawlog type with some sawlogs. Minimal logging and road construction has occurred in this planning unit as it is in the upper most corner of the district.

This planning unit has a moderate mineral potential in the Nilkitkwa River valley, with high mineral potential within the east and west flanking mountains. To date two mineral occurrences have been found in this planning unit and they indicate base metal (i.e. copper and molybdenum plus lead and zinc) potential.

This planning unit has been sub-divided into two sub-units for management purposes.

Planning Unit 1: Upper Nilkitkwa
 Sub-unit 1-1: Barbeau Creek (SM1)

Objective: To manage a watershed in a primitive state, while permitting sensitive mineral exploration and development. Water quality, goat and grizzly bear habitat, and wilderness recreation opportunities are all to be maintained.

| Management Category | Specific Direction |
|---------------------------------------|--|
| Biodiversity | <ul style="list-style-type: none"> • Biodiversity management will consider the watershed as a single system. • Diversity is highest in the wetland system and this will be given special attention in management and planning. |
| Access | <ul style="list-style-type: none"> • Minimize and control access near goat habitat. • Deactivation plans will be prepared for any approved access. The plans will ensure primitive qualities are maintained and wetlands and riparian zones are protected. Ensure remote lakes will remain without public road access. |
| Timber Management | <ul style="list-style-type: none"> • Timber harvesting is not allowed. Removal of trees is permitted only where required for approved mining exploration and development purposes, including access, and for other activities consistent with objectives and other specific direction for management stated in this planning unit and sub unit. |
| Water quality | <ul style="list-style-type: none"> • High water quality will be maintained by greatly restricting access development. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none"> • Maintain goat and grizzly bear habitat. • Prescriptions will focus on the importance of maintaining grizzly bear habitat, especially that required for travel and denning. • Manage in coordination with Sub-unit 1-2 and Planning Unit 2 (Babine River). |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none"> • Maintain the primitive setting and experience while permitting sensitive mineral exploration and development. |
| Subsurface Resources | <ul style="list-style-type: none"> • Mineral exploration and development are permitted, but will ensure existing goat habitat and wilderness qualities are maintained or restored. |
| Future Planning Processes | <ul style="list-style-type: none"> • Rehabilitation plans will ensure forest cover is re-established. • Maintain connectivity with Sub-Unit 1-2, with the Motase Lake area to the north and the Sicintine and Bait Ranges to the west and east. |

Planning Unit 1: Upper Nilkitkwa
 Sub-Unit 1-2: Nilkitkwa River (IRM)

| Management Category | Specific Directions |
|----------------------------------|---|
| Biodiversity | <ul style="list-style-type: none"> • Adequately represent older seral stages over the landscape. • Maintain connectivity with Planning Unit 2. |
| Access | <ul style="list-style-type: none"> • A Coordinated Access Management Plan (CAMP) that addresses timber development, mineral potential, and biodiversity issues will be completed. |
| Water Quality | <ul style="list-style-type: none"> • Development will minimize impact to downstream water quality and angling opportunity. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none"> • Maintain fish habitat. • Maintain wildlife habitat diversity. • Complete grizzly bear interpreted ecosystem mapping and incorporate into management prescriptions as directed by the Babine Local Resource Use Plan (LRUP) completed for Planning Unit 2. |

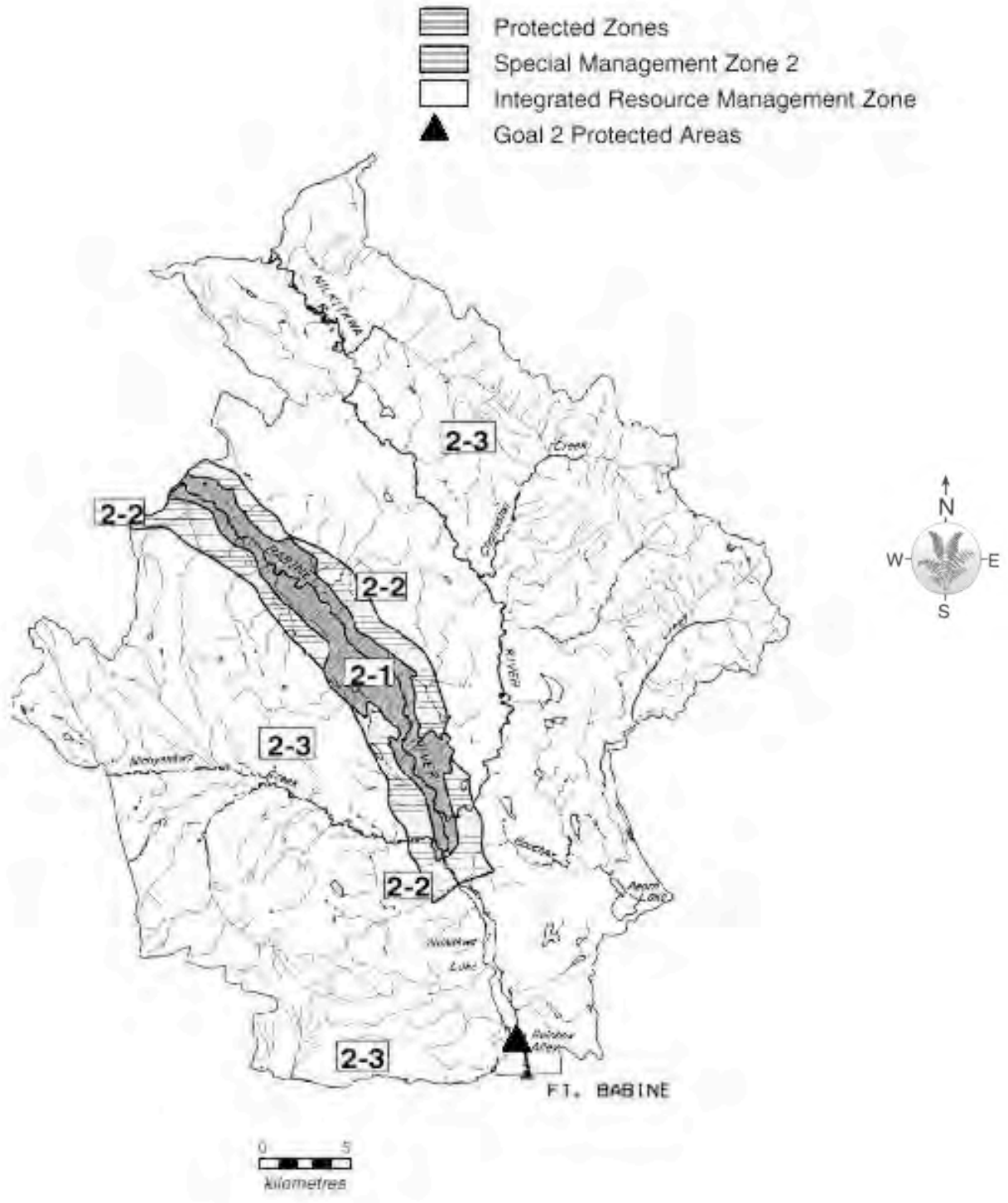
2.4.2 Planning Unit 2: Babine River

The Babine River Planning Unit covers 125,351 hectares. The relative importance for wildlife values in this unit is high (as compared to other units in the Bulkley Plan Area). The Babine River Planning Unit has been part of a five-year planning process that resulted in the *Babine River Interim Local Resource Use Plan (January, 1995)*. This process recommended the Babine River Corridor be managed as a wilderness zone.

Mountain goats can be found in the Bait Range, but their present population is below habitat carrying capacity. Grizzly bears are attracted to the Babine River by the abundant salmon runs. Access through grizzly bear habitat would typically increase poaching incidents and bear/human encounters (Babine Technical Advisory Committee, 1991). In harvesting, restricting road access near areas where bears traditionally frequent is important as is maintaining habitat connectivity, especially along riparian and wetland corridors.

Moose are found throughout this unit and winter adjacent to the Babine River and Nilkitkwa Lake, and on the north side of Nichyeskwa Creek. Waterfowl winter in both the inlet and outlet of Nilkitkwa Lake which remain ice-free.

Planning Unit 2: Babine River



The relative importance of fisheries values is high for spawning, rearing, water quality and recreational fishing. The Babine River is a provincially significant angling stream and attracts anglers from numerous countries to fish for trophy size steelhead trout. Abundant runs of sockeye and pink salmon as well as smaller runs of coho and Chinook salmon are found in the river. Important spawning areas for salmonids include the river between Babine Lake and Nilkitkwa Lake, Babine River from the outlet of Nilkitkwa Lake downstream to Nichyeskwa Creek, and the lower reaches of the tributaries to both the Nichyeskwa and the Nilkitkwa Rivers. This area is also important for rearing.

Resident fish are found in the Babine River between the lakes, known as Rainbow Alley. This area receives significant recreational angling use for rainbow trout.

This unit is classified as 6% Primitive and 55% Semi-primitive according to the Recreation Opportunity Spectrum. The main recreational features include Babine River and Rainbow Alley. The Babine River is also a popular destination for rafters, kayakers, canoeists and wildlife viewers. As well, there are two commercial fishing camps and two corresponding satellite camps located on the Babine River within the Plan Area which cater to tourists.

Other areas of significance include trails at French Peak, Suskwa Pass (the original supply route to Fort Babine from Hazelton), and the Babine Bridge. Current use is low due to the distance from population centres. A Forest Service recreation site is located on Starvation Lake. In addition, there is a potential for backcountry experiences in alpine areas of the Bait Range and Mt. Horetzky. As well, Nilkitkwa Lake has a number of recreational cabins on it that are mainly used in the summer and fall.

Landscape inventories have been completed from the Babine River, Nilkitkwa Lake and Babine Lake. Visual Quality Objectives have been approved to protect the vista from these important viewpoints. The Bait Range, Mt. Horetzky and French Peak provide the main scenic backdrops for this unit.

The northern portion of this unit falls within the traditional territory of Gitksan (Wiigyet and Dioaslee). The whole unit is also within the Nat'oot'en territory. Fort Babine, a Nat'oot'en community, is situated along the shores of Babine Lake and is the only population centre in the northern part of the Bulkley Plan Area. It has a community water license. Berry picking, a salmon hatchery and trapping are important to the people who live here. An industrial water license is held on Barinsfather Creek.

The Babine River Planning Unit comprises a large portion (23.9%) of the Bulkley Plan Area's operable landbase. The quality of timber in this unit is good quality sawlogs making it very attractive to licensees and the Small Business Forest Enterprise Program (SBFEP). Currently 2 licensees and the SBFEP have charts in this unit. Fifty-nine percent of the planning unit is operable; to date, 5% of the operable forest has been logged.

The mineral potential in this unit ranges from low in the northwest, high in the southeast and moderate to the east. The 10 mineral occurrences within this unit exhibit three types of mineralization potential: bulk tonnage, copper and molybdenum vein, and coal. The French Peak property has produced a small amount of silver, gold, copper, lead and zinc.

This planning unit has been divided into 3 sub-units for management purposes.

Planning Unit 2: Babine River

Sub-unit 2-1: Babine River Corridor (P)

Objective: To maintain the wilderness quality of the high-value grizzly bear habitat located in close proximity to the river through designation and management as a protected area. To manage according to the guidelines set out in the *Babine River Interim Local Resource Use Plan (LRUP)*.

| Management Direction | Specific Direction |
|---------------------------------------|---|
| Biodiversity | <ul style="list-style-type: none"> • Adequately represent older seral stages over the landscape • Maintain connectivity with Sub-unit 1-2. • Preserve representative examples of all ecosystems within each biogeoclimatic subzone through landscape level plans. |
| Access | <ul style="list-style-type: none"> • Access planning within the corridor must be part of the formal Management plan for the Protected Area. • Access within the Protected Area will be co-ordinate with access to the entire planning unit with input from the Board and the public as necessary. |
| Timber Management | <ul style="list-style-type: none"> • Permit cutting of trees where fire safety and pest management are concerns. • Utilize fall and burn and other measures in accordance with Park Act, preferably between November and March. |
| Water Quality | <ul style="list-style-type: none"> • Maintain existing levels of water quality, clarity and hydrologic stability in the Babine River and its tributaries. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none"> • Maintain fish habitat. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none"> • Maintain the provincially significant angling values associated with the Babine River. |

Sub-unit 2-1 continued

| Management Direction | Specific Direction |
|----------------------------------|---|
| Future Planning Processes | <ul style="list-style-type: none">• Completion of a Park Management Plan is a priority in this area.• Management Plan will address motorized access and motorized access users will be included in the planning process. |

Planning Unit 2: Babine River

Sub-unit 2-2: Babine River (SM2)

Objective: To protect and buffer the river-based resource values within the protected corridor (Sub-unit 2-1). To follow the guidelines set out in the *Babine River Interim Local Resource Use Plan (LRUP)*.

| Management Direction | Specific Direction |
|---------------------------------------|---|
| Biodiversity | <ul style="list-style-type: none">• Preserve representative examples of all ecosystems within each biogeoclimatic subzone through landscape level plans.• Represent older seral stages over the landscape according to FPC guidelines.• An emphasis will be placed on grizzly bear management, focusing on the importance of maintaining grizzly bear habitat, especially that required for travel and denning. |
| Access | <ul style="list-style-type: none">• There will be no permanent unrestricted road access north of the Babine River bridge.• Maintain all temporary access at least 300 metres from the Babine River Corridor boundary. |
| Timber Management | <ul style="list-style-type: none">• Limit logging to select harvests or small clearcuts up to 15 hectares. |
| Water Quality | <ul style="list-style-type: none">• Maintain existing levels of water quality, clarity and hydrologic stability in the tributaries of the Babine River. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none">• Maintain fish habitat. |
| Visual Quality | <ul style="list-style-type: none">• Follow Visual Quality Objectives (VQOs) established for the Babine River. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">• Maintain the provincially significant angling values of the Babine River. |

Planning Unit 2: Babine River

Sub-unit 2-3: Babine (IRM)

Objective: To manage for a variety of values and activities in an integrated and compatible manner. Follow the guidelines set out in the *Babine River Interim Local Resource Use Plan (LRUP)* and *Coordinated Access Management Plan (CAMP)*

| Management Category | Specific Direction |
|----------------------------------|--|
| Biodiversity | <ul style="list-style-type: none">• An emphasis will be placed on grizzly bear management, focusing on the importance of maintaining grizzly bear habitat, especially that required for travel and denning. |
| Access | <ul style="list-style-type: none">• Discourage circle routes to adjacent districts.• Maintain public boat access at Mercury Landing or an alternate suitable location on Babine Lake. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none">• The reach above Nilkitkwa Lake (Rainbow Alley) is a regionally significant spawning area and is a priority area for watershed assessments.• An emphasis will be placed on grizzly bear management. |
| Future Planning Processes | <ul style="list-style-type: none">• Protect Rainbow Alley and Nilkitkwa Lake sites under Goal 2 of the Protected Areas Strategy.• Consider the Babine LRUP as the basis of the first Landscape Unit Plan, as recognized under the Forest Practices Code, which will be subject to modification through agency analysis, implementation and monitoring.• Specifically, management prescriptions will be revisited in light of the General Management Directions for Biodiversity. |

2.4.3 Planning Unit 3: Torkelsen Lake

The Torkelson Lake Planning Unit covers 43,920 hectares. The relative importance for wildlife values in this unit is high. Mountain goats are abundant in Netalzul Mountain and grizzly bears frequent the higher elevations.

Moose are found throughout this unit and winter along Tsezakwa Creek, Babine Lake, Torkelson Creek and Bristol Creek. Waterfowl use the numerous lakes and marshes. Other wildlife species including eagles, osprey, fur-bearers and non-game species can be found in abundant numbers along the shores of Babine Lake. The relative importance of fisheries values in this unit is high for spawning, rearing, water quality and recreational fishing.

Planning Unit 3: Torkelsen Lake



Babine Lake is popular during the summer for angling and boating. The lake is used significantly by anglers for rainbow trout, lake trout and burbot, and supports three lakeside commercial lodges which cater to sport fishing clientele. In addition, there are a number of recreational cabins at Smithers Landing as well as a BC Parks campsite and marine park. Snowmobiling is popular during the winter.

Many small lakes also support resident fish. In addition to Babine Lake, sport fishermen use Torkelsen and Bristol Lakes. A Forest Service recreation site exists on Torkelsen Lake. Hunting occurs throughout this unit for moose and bear. Although there are no known trails in this unit, there is a potential to access Netalzul Mountain from the east.

The Torkelson Planning Unit falls within the traditional territory of the Nat'oot'en (Dswisim'tsik).

This unit comprises 7.3% of the Bulkley Plan Area's operable landbase, mainly consisting of good quality sawlogs (spruce and pine). Historical development within this planning unit has resulted in 23% of the operable forest being logged and planted to date.

The mineral potential in this planning unit is ranked high. Five mineral occurrences in this unit offer mineral potential from predominantly bulk tonnage, copper and to a lesser extent, vein style mineralization of precious metal (silver).

Landscape inventories have been completed from viewpoints on Babine Lake and Visual Quality Objectives have been approved to protect the vista from these important viewpoints.

Planning Unit 3: Torkelsen

Sub-unit 3-1: Torkelsen (IRM)

Objective: To manage for a variety of values and activities in an integrated and compatible manner.

| <i>Management Category</i> | <i>Specific Direction</i> |
|----------------------------|--|
| Biodiversity | <ul style="list-style-type: none"> • Maintain forested connectivity along Babine Lake shoreline. • Manage the following for connectivity with Babine Lake: <ol style="list-style-type: none"> 1. Nine-Mile; 2. Torkelsen-Bristol Watershed; 3. The link to Harold Price. |

| Management Category | Specific Direction |
|----------------------------------|---|
| Access | <ul style="list-style-type: none">• Maintain boat access at Mercury Landing on Babine Lake.• Set road access back from Babine Lake.• In order to protect goats and habitat, do not allow permanent access to Netalzul Mountain. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none">• Maintain wildlife habitat and diversity.• Protect fish habitat on Babine Lake.• Protect eagle nesting sites within one km of Babine Lake. |
| Visual Quality | <ul style="list-style-type: none">• Special attention will be paid to the sensitive views as seen from:<ol style="list-style-type: none">1. Babine Lake2. Nilkitkwa Forest Service Road3. Recreational lakes and roads• No formal VQOs required in most cases. |
| Cultural Heritage Sites | <ul style="list-style-type: none">• Development will be sensitive to the high archeological potential of the lakeshore. |
| Future Planning Processes | <ul style="list-style-type: none">• Carefully plan and monitor development along Babine Lake to protect water quality and recreational potential. |

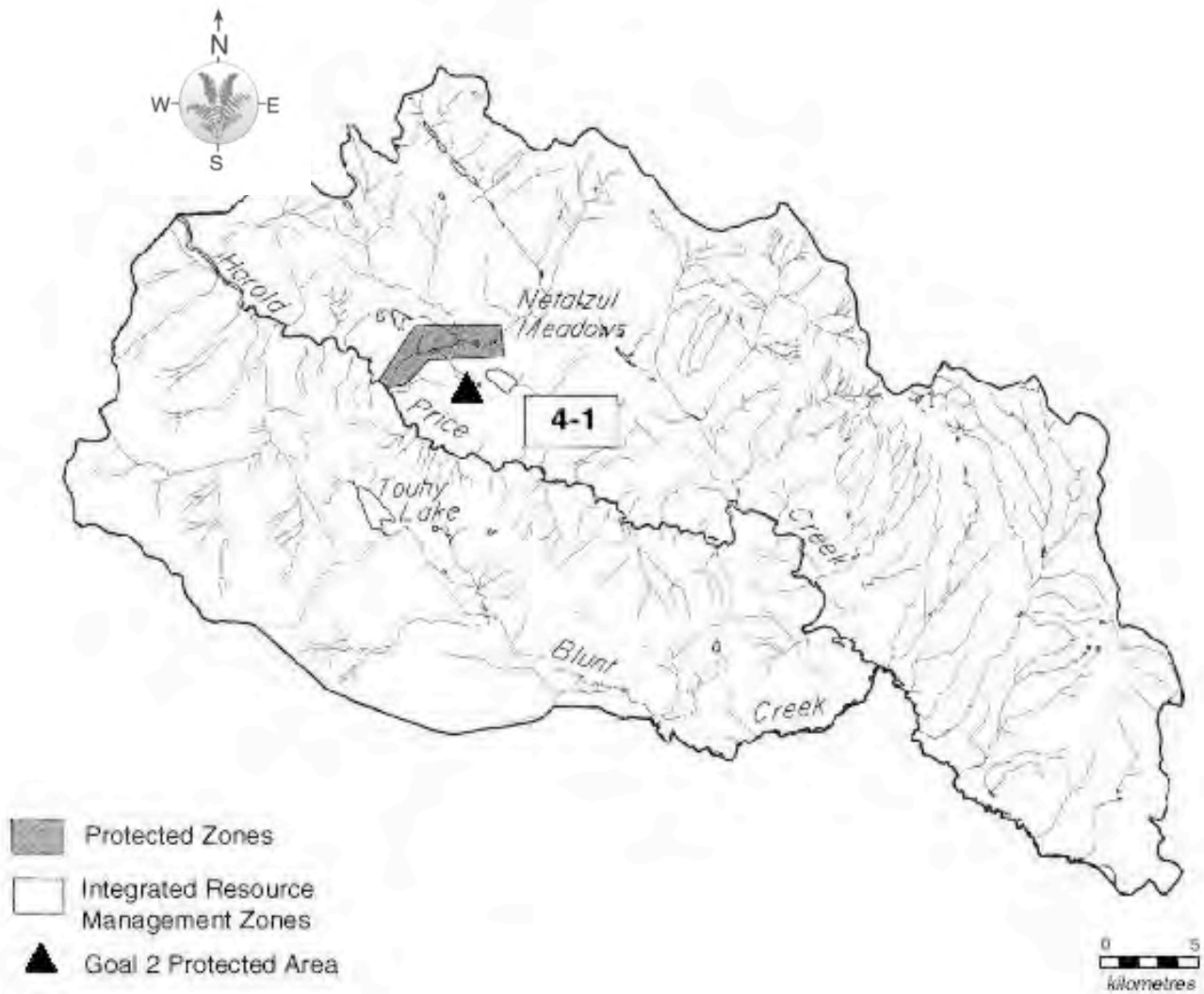
2.4.4 Planning Unit 4: Harold Price

The Harold Price Planning Unit covers 39,812 hectares. The relative importance for wildlife values in this unit is moderate. Mountain goats exist in abundance on Blunt and Netalzul Mountains. Grizzly bears are found in the Blunt Mountain-Touhy Creek area, along the north side of Harold Price Creek and in the Netalzul Mountains and meadows. Moose and mule deer winter along the north side of Harold Price Creek in Netalzul Meadows. Other species are found in abundance in the western portion of this unit.

The relative importance for fisheries values in this unit is moderate for spawning, rearing, and water quality. Resident fish include cutthroat trout, whitefish and Dolly Varden char, found in Harold Price Creek. Cutthroat are also found in Camp and Touhy Lakes.

Work has been done on a velocity chute on the lower Harold Price Creek to allow anadromous fish to access the creek above the barrier. Harold Price Creek contributes a significant portion of the flow to the Suskwa River which is an important river for salmonids.

Planning Unit 4: Harold Price



The main recreational features include Harold Price Creek, portions of Blunt Creek, various smaller creeks, Camp Lake, Touhy Lake, Netalzul Falls and Netalzul Mountain. Although there are no recreation sites or recognized trails in this unit, there is a potential trail into the Netalzul Range where there is an opportunity to view goats. Some hunting, canoeing, backpacking, skiing and snowmobiling occurs in this unit but the use is relatively low. A guide-outfitter maintains a cabin on Touhy Lake and a cabins on Camp Lake.

This planning unit falls within the traditional territories Wet’suwet’en (Smolgelgem and Goohlaht).

The Harold Price comprises 6.1% of the Bulkley Plan Area’s landbase. Forty-eight percent of it is operable and is comprised of both marginal and good quality sawlogs. There is a minor component of pulpwood in the western corner of this Planning Unit. Extensive logging associated with beetle and blowdown salvage in the southeast portion of this planning unit has resulted in 19% of the operable forest being logged and planted to date.

The mineral potential in this Planning Unit is moderate within the creek valley and high in the flanking mountains, east and west. There are five mineral occurrences and the major style of mineralization are veins containing silver, gold, lead and zinc.

Planning Unit 4: Harold Price

Sub-unit 4-1: Lower Harold Price (IRM)

Objective: To manage for a variety of values and activities in an integrated and compatible manner.

| <i>Management Category</i> | <i>Specific Direction</i> |
|----------------------------------|---|
| Biodiversity | <ul style="list-style-type: none"> • Maintain connectivity between Netalzul Mountain and Blunt Mountain. • Consider Touhy Lake meadows for inclusion in the Ecosystem Network. • Netalzul meadow and waterfall will be protected as a Goal 2 under the Protected Areas Strategy. |
| Timber | <ul style="list-style-type: none"> • Timber development will be designed to minimize impact on sensitive soils and unstable terrain. |
| Access | <ul style="list-style-type: none"> • Discourage circle routes to Suskwa Pass. • Access development will be designed to minimize impact on unstable terrain. • Ensure some lakes within this planning unit are unroaded |
| Fish and Wildlife Habitat | <ul style="list-style-type: none"> • Manage to conserve goat habitat. |

| Management Category | Specific Direction |
|----------------------------------|---|
| Visual Quality | <ul style="list-style-type: none">• Development plans will pay special attention to views from the Suskwa community and Touhy Lake. |
| Future Planning Processes | <ul style="list-style-type: none">• Link with Kispiox Forest District regarding Suskwa community concerns. |

2.4.5 Planning Unit 5: Babine Mountains

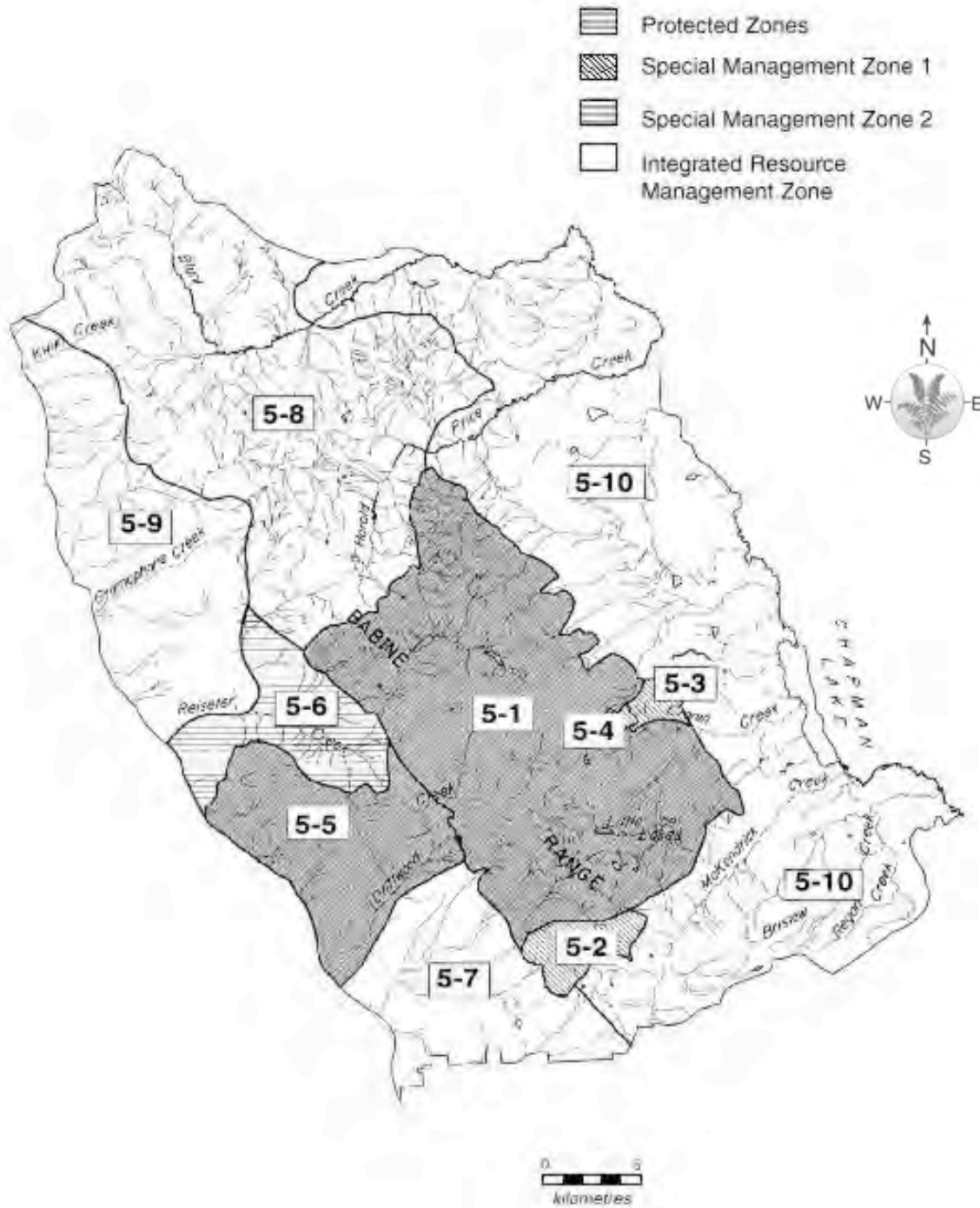
The Babine Mountains Planning Unit covers 105,757 hectares. The Babine Mountain Recreation Area exists wholly within this Planning Unit, and has undergone an extensive Master Planning Process with the local public. This area is a major destination for outdoor recreationalist, and is unique in that it provides wilderness type experiences in close proximity to the major communities.

There is a great diversity of recreational activities here. This unit is classified as 5% Primitive, and 30% Semi Primitive according to the Recreation Opportunity Spectrum. Good road access and proximity to Smithers give the Babine Mountains Planning Unit a high profile. The main recreational features include the alpine areas of the Blunt Range, Causqua Plateau, Moricetown/Cronin Trail, the east slopes of Babine Mountains Recreation Area and the Cronin Access Road, Keulsh Mountain, Babine Mountain Recreation Area, and Driftwood-Reiseter.

In addition, there are many trails to the Babine Recreation Area, two trails accessing the alpine in the Blunt Seaton area, and the Moricetown/Cronin Trail (historic supply trail to Cronin Mine). Recreational sites include the Harold Price shelter in the Causqua Plateau, and two Forest Service recreation sites at Chapman Lake and Morin Lake. Use of the area has increased with improved access, and includes ski-touring, snowmobiling and ski mountaineering, backpacking, wildlife viewing, trail riding, and hunting.

The relative importance for wildlife values in this unit is high. Mountain goats are found in abundance on Mount Seaton, Blunt Mountain, Goat Mountain, and in the Babine Recreation Area. Moose habitat is found along the Fulton River, Chapman Lake, and on the south facing slopes along the western and southern edges of this unit.

Planning Unit 5: Babine Mountains



Small fur-bearers are important for trapping activities. Waterfowl are found in wetlands and marshes associated with Chapman Lake. Other wildlife species, especially birds, are found in abundant numbers.

The relative importance of fisheries in this unit is moderate for spawning, rearing, water quality and recreational fishing. Most streams contain resident fish. Anadromous fish are found in the lower reaches of tributaries to the Bulkley River for spawning and rearing (recorded in Driftwood Creek).

This unit includes the traditional territory of the Wet'suwet'en (Goohlaht, Woos, and Djogaslee houses), as well as portions of the Nat'oot'en territory to the east.

This unit has many domestic water licenses on most of the lower reaches of major creeks draining into the Bulkley River. The Canyon Creek Watershed, which supplies many rural residents, is within this Planning Unit.

As there is a great diversity of recreational opportunities within this planning unit the viewsapes everywhere are important. Much of the recreational activities involve the alpine, which offers a bird's eye view of the landscape. Landscape inventories have been done from several of the popular alpine viewpoints.

Other popular viewpoints are at Moricetown and along Highway 16. Agriculture is dominated by beef production, with a minor component of sheep farming. The estimated range use in this planning unit is 839 Animal Unit Months, 14% of the Bulkley Plan Area program. There are six grazing licenses or permits, and one grazing lease on forage types which include clearcut, mixed-wood forest, deciduous forest, and natural meadow.

This unit comprises a significant portion (18.1%) of the Bulkley Plan Area's operable landbase the majority of which is good quality sawlogs. Some marginal sawlog wood exists at higher elevations. Of the fifty-three percent that is operable, 24% of this has been logged and planted to date.

High mineral potential exists centrally within this unit flanked by moderate areas in the northeast and southwest. Mineral production (silver, lead, zinc, copper, gold) related to vein style mineralization has occurred on eight of twenty nine mineral occurrences, specifically at Cronin, Silver King, Lorraine, Driftwood and Virginia Silver. As well, the Big Onion property has a notable copper, bulk tonnage reserve.

Planning Unit 5: Babine Mountains

Sub-unit 5-1: Babine Mountains Recreation Area (P)

Objective: To protect the old growth, representative ecosections, and other resources in this area as part of the Protected Areas system. To protect the alpine flora and fauna from unrestricted motor vehicle use, while allowing for backcountry recreation opportunities to continue. To ensure that natural processes will predominate, and the essential qualities of wilderness experience are protected. (NOTE: This comes directly from the Babine Recreation Area Master Plan)

| Management Category | Specific Direction |
|----------------------------------|---|
| Future Planning Processes | <ul style="list-style-type: none">• Management for the area will follow the Babine Recreation Area Master Plan. |

Planning Unit 5: Babine Mountains

Sub-unit 5-2: Big Onion Mountain (SM1)

Objective: To maintain snowmobile recreation opportunities and water quality, while accommodating mineral exploration and development. To minimize visual impacts from the Bulkley Valley.

| Management Category | Specific Directions |
|----------------------------|--|
| Access | <ul style="list-style-type: none">• Mineral exploration or mining approval processes will ensure access to the snowmobiling area (winter) and the alpine recreation area (summer).• Hiking trails into the Babine Mountains will be recognized and given some form of protection (trails may be partially re-routed).• Access maintenance will follow inter-ministry agreement (Appendix 6). |
| Timber Management | <ul style="list-style-type: none">• Timber harvesting is not allowed. Removal of trees is permitted only where required for approved mining exploration and development purposes, including access, and for other activities consistent with objectives and other specific direction for management stated in this planning unit and sub unit. |
| Visual Quality | <ul style="list-style-type: none">• All industrial development and activity is subject to visual quality constraints identified in review and approval processes.• Due to high visibility of this area from viewpoints at both low and high elevations, future industrial development must be sensitive to and minimize impact on visual quality. |
| Water Quality | <ul style="list-style-type: none">• All major creeks and their tributaries serve as domestic water supplies downstream and water quality must be maintained. |
| Range Management | <ul style="list-style-type: none">• No domestic grazing will occur. |

Sub-unit 5-2 continued

| Management Category | Specific Direction |
|---------------------------------------|---|
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">• If mining development requires relocation of the snowmobile club cabin, this will be done at the expense of the developer and to the satisfaction of the club. Details will be discussed as part of the Environmental Assessment Process. |
| Subsurface Resources | <ul style="list-style-type: none">• Permit mineral exploration and development, subject to review and approval processes. |

Planning Unit 5: Babine Mountains

Sub-Unit 5-3: Old Cronin Mine Area (SM1)

Objective: To maintain the recreational quality of this alpine area while accommodating mineral exploration and mine development.

| Management Category | Specific Direction |
|-----------------------------|--|
| Access | <ul style="list-style-type: none">• Assure recreational users safe access to the alpine area.• Hiking trail access to Babine Mountains will be maintained by protecting trails or partially re-routing them if necessary.• No vehicular access will be permitted, with the exception of controlled access for mining vehicles. |
| Timber Management | <ul style="list-style-type: none">• Timber harvesting is not allowed. Removal of trees is permitted only where required for approved mining exploration and development purposes, including access, and for other activities consistent with objectives and other specific direction for management stated in this planning unit and sub unit. |
| Visual Quality | <ul style="list-style-type: none">• Due to high visibility of this area from viewpoints at both low and high elevations, all industrial development and activity is subject to visual quality constraints identified in review and approval processes. |
| Range Management | <ul style="list-style-type: none">• Domestic grazing will not be permitted. |
| Outdoor Recreation | <ul style="list-style-type: none">• Maintain recreational quality of alpine area. |
| Subsurface Resources | <ul style="list-style-type: none">• Permit mineral exploration and development, subject to review and approval processes. |

Planning Unit 5: Babine Mountains

Sub-unit 5-4: Cronin Alpine Area (SM1)

Objective: To accommodate recreation as well as mineral exploration and mine development.

| Management Category | Specific Direction |
|---------------------------------------|--|
| Access | <ul style="list-style-type: none">• Hiking trail access to Babine Mountains will be maintained by protecting trails or partially re-routing them if necessary.• Maximize use of existing roads and discourage new road construction.• Allow surface access for mineral exploration/development.• Reclaim new roads immediately when no longer needed. |
| Timber Management | <ul style="list-style-type: none">• Timber harvesting is not allowed. Removal of trees is permitted only where required for approved mining exploration and development purposes, including access, and for other activities consistent with objectives and other specific direction for management stated in this planning unit and sub unit. |
| Visual Quality | <ul style="list-style-type: none">• Due to high visibility of this area from viewpoints at both low and high elevations, all industrial development and activity are subject to visual quality constraints. |
| Range Management | <ul style="list-style-type: none">• No domestic grazing will occur. |
| Subsurface Resources | <ul style="list-style-type: none">• Study feasibility of underground mining as an alternative to open pit mining.• Minimize temporal and spatial extent of exploration and mining disturbances. Encourage underground bulk sampling. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">• Maintain recreational quality of the alpine area. |

Planning Unit 5: Babine Mountains

Sub-Unit 5-5: Driftwood Recreation Extension (P)

Objective: To protect the resources of this area for a wilderness recreation park as part of the Protected Areas system.

| Management Category | Specific Direction |
|----------------------------------|---|
| Access | <ul style="list-style-type: none">• Access maintenance will follow inter-ministry agreement (Appendix 6).• Maintain ATV access on the existing road up to Harry Orm's cabin. |
| Future Planning Processes | <ul style="list-style-type: none">• A formal Management Plan for the Protected Area will be written. Current use will continue until then. |

Planning Unit 5: Babine Mountains

Sub-unit 5-6: Reisetser Creek (SM2)

Objectives: To preserve the water quality of the tributaries and to maintain the scenic quality of this area.

| <i>Management Category</i> | <i>Specific Direction</i> |
|-----------------------------------|--|
| Access | <ul style="list-style-type: none">• Complete a Coordinated Access Management Plan (CAMP).• Hiking trail access to Babine Mountains will be maintained by protecting trails or partially re-routing them if necessary.• Agencies will prepare a plan for presentation to the public exploring access from the south side of Reisetser Creek, considering the following:<ul style="list-style-type: none">• Access through private land;• Hauling to Smithers via Driftwood or Moricetown;• Operating only in certain times of the year;• Hauling at certain times of the day, taking into account the number of trucks per day; and,• Engineering of the haul road.• If road access from the south side of Reisetser Creek proves environmentally or technically non-feasible, government agencies and the Board will facilitate public discussions to arrive at recommendations on alternative access to the timber. The selected access option will be presented to the public for comments. |
| Timber Management | <ul style="list-style-type: none">• A management strategy for this area including harvesting practices will be developed for review by the Board and the public prior to implementation.• Only low impact, low intensity logging practices will be used in this area.• Forest development plans that propose logging take place adjacent to residential areas, including those for woodlot licenses, will be presented to those residents at early stages of planning for review and comment. The concerns and views of the residents will be noted and where possible, be incorporated into the logging plan. |
| Water Quality | <ul style="list-style-type: none">• Maintain water quality, as all major creeks and their tributaries (i.e. Reisetser) serve as domestic water supplies downstream. |
| Visual Quality | <ul style="list-style-type: none">• All industrial development and activity is subject to visual quality constraints due to the high visibility of this area from viewpoints at both low and high elevations.• Special attention will be paid to scenic quality. |

Planning Unit 5: Babine Mountains

Sub-unit 5-7: Ganokwa Creek (IRM)

Objective: To manage for a variety of values and activities in an integrated and compatible manner.

| <i>Management Category</i> | <i>Specific Direction</i> |
|-----------------------------------|--|
| Access | <ul style="list-style-type: none">• Hiking trail access to Babine Mountains will be maintained by protecting trails or partially re-routing them if necessary. |
| Timber Management | <ul style="list-style-type: none">• Forest development plans that propose logging take place adjacent to residential areas, including those for woodlot licenses, will be presented to those residents at early stages of planning for review and comment. The concerns and views of the residents will be noted and where possible, be incorporated into the logging plans. |
| Water Quality | <ul style="list-style-type: none">• Maintain water quality, as all major creeks and their tributaries (i.e. Driftwood, Lyon, Ganokwa, Canyon) serve as domestic water supplies downstream. |
| Visual Quality | <ul style="list-style-type: none">• Due to high visibility of this area from viewpoints at both low and high elevations, all industrial development and activity is subject to visual quality constraints. |

Planning Unit 5: Babine Mountains

Sub-unit 5-8: Blunt Mountain (IRM)

Objectives: To manage for a variety of values and activities in an integrated and compatible manner.

| <i>Management Category</i> | <i>Specific Direction</i> |
|---------------------------------------|---|
| Biodiversity | <ul style="list-style-type: none">• Maintain connectivity from Harold Price meadows to Goat Mountain.• Use information from Suskwa Wilderness Society Lone Wolf proposal to help refine Forest Ecosystem Network. |
| Access | <ul style="list-style-type: none">• Maintain the wilderness quality of the northern portion of Sub-unit 5-1.• No circle routes are allowed.• Hiking trail access to Babine Mountains will be maintained by protecting trails or partially re-routing them if necessary. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none">• Ensure goat habitat is maintained. |
| Visual Quality | <ul style="list-style-type: none">• Development will pay special attention to the visual sensitivity of this area associated with outdoor recreation activities. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">• Manage to maintain the high recreation opportunities in the Blunt/Seaton area.• Prepare a plan to address existing and potential activities among recreational users. |

Planning Unit 5: Babine Mountains

Sub-unit 5-9: Gramophone Creek (IRM)

Objective: To manage for a variety of values and activities in an integrated and compatible manner.

| <i>Management Category</i> | <i>Specific Direction</i> |
|----------------------------|--|
| Water Quality | <ul style="list-style-type: none">• Development plans will include precautions to maintain the water quality needs for domestic water consumption. |
| Visual Quality | <ul style="list-style-type: none">• Development plans will pay special attention the views from Highway 16 and from the Babine Mountains Park. |

Planning Unit 5: Babine Mountains

Sub-Unit 5-10: Chapman Lake (IRM)

Objectives: To manage for a variety of values and activities in an integrated and compatible manner.

| <i>Management Category</i> | <i>Specific Direction</i> |
|----------------------------------|--|
| Biodiversity | <ul style="list-style-type: none">• Follow directions set out in Planning Unit 9.• Maintain remnants of forest connectivity. |
| Access | <ul style="list-style-type: none">• Maintain wilderness qualities of northern portion of Sub-unit 5-1.• Maintain accessibility of Cronin Road.• Hiking trail access to Babine Mountains will be maintained by protecting trails or partially re-routing them if necessary. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none">• Maintain fisheries values associated with the Fulton River. |
| Visual Quality | <ul style="list-style-type: none">• Development plans will pay special attention the views from the Babine Mountains Park. |

2.4.6 Planning Unit 6: Deep Creek

The Deep Creek Planning Unit covers 28,336 hectares and has many domestic water licenses on most of the major creeks.

Agriculture use is limited to beef and dairy production. The estimated range use in this planning unit is 2,061 Animal Unit Months, or 34% of the Bulkley Plan Area program. There is one hay cutting license, 5 grazing licenses or permits, and three grazing leases. The forage types include deciduous and mixedwood forests, natural meadows, and clearcuts.

This unit comprises a small portion (4.8%) of the Bulkley Plan Area's operable landbase. Fifty-two percent of this Planning Unit is considered operable, but is mostly good quality sawlogs. A large portion of immature forests resulting from recent fires makes up this Planning Unit; Only 2% of the operable forest has been logged and planted to date. The Small Business Enterprise Program has recently been meeting with residents to discuss development and access options within this Planning Unit.

Important habitat types include streamside riparian areas and adjacent upland forests, lakeshore riparian areas, wetlands, dry southerly slopes, deciduous forest types, moist forest types, and avalanche chutes.

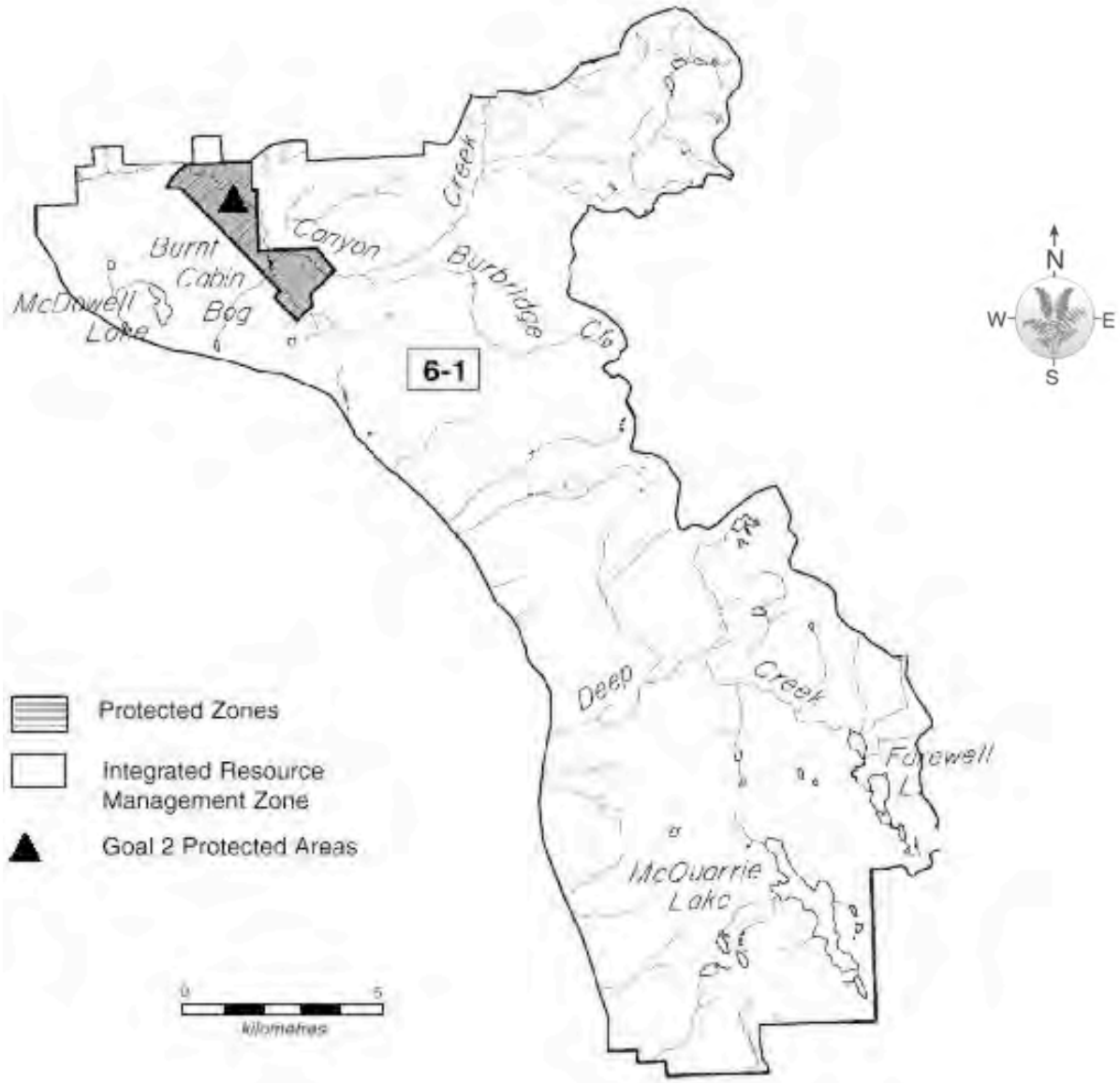
The relative importance for wildlife values is moderate in this planning unit. Grizzly bears frequent the eastern portion of this unit from Grouse Mountain to Mount McKendrick and moose enjoy the high quality winter range along the lower elevations. Wildlife are found in abundant numbers, as are fur-bearers; trapping is therefore active.

The relative importance for fisheries values is low for spawning, rearing, and water quality. Some of the lakes contain sport fish and because access is difficult, they receive use by backcountry enthusiasts.

This unit includes the traditional territory of the Wet'suwet'en (Woos, Wah Tah Kwets and Smogelgem). The main recreational features include a variety of creeks and lakes such as McQuarrie, Farewell and McDowell Lakes, and scenic values from Highway 16. Trails include the Dome Mountain snowmobile trail and cabin, which are highly used, and a portion of the Canyon Creek cross-country ski trails. Hunting, ski touring, and snowmobiling are moderate uses within the unit.

The mineral potential within this Planning Unit is moderate in the northwest and high elsewhere. Base metal prospects are good in the vicinity of the 14 mineral occurrences within this planning unit. Silver and copper ore has been produced at Grouse Mountain.

Planning Unit 6: Deep Creek



Planning Unit 6: Deep Creek
 Sub-Unit 6-1: Deep Creek (IRM)

Objective: To manage for a variety of values and activities in an integrated and compatible manner.

| Management Category | Specific Direction |
|---------------------------------------|---|
| Biodiversity | <ul style="list-style-type: none"> • Consider the small amount of older forest for inclusion in the Forest Ecosystem Network. • Manage Burnt Cabin Bog as a Goal 2 Protected Area. |
| Access | <ul style="list-style-type: none"> • Maintain access into Deception Lake. • Manage according to options recommended in the Deep Creek access management plan. |
| Timber Management | <ul style="list-style-type: none"> • Cutblocks will not exceed 15 hectares. • Consider the results of previous planning processes for the Deep Creek area (access) when developing a landscape unit plan. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none"> • Agencies will review the potential of this area for guide outfitting and angling. |
| Visual Quality | <ul style="list-style-type: none"> • Development should be designed so that it fits in with rural landscape views from Highway 16. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none"> • Relevant agencies will coordinate a planned approach to present and future recreation activities and will review options for backcountry recreation. |

2.4.7 Planning Unit 7: Bulkley Valley

Planning Unit 7 covers 81,240 hectares. It is the most populated planning unit within the Bulkley Plan Area and includes the communities of Smithers, Telkwa and Moricetown. Sixty-one percent of this unit is private, non-Crown land. The main transportation route is Highway 16 which bisects the Bulkley Valley. This unit also contains the majority of the water licenses within the Bulkley Plan Area.

Due to a high percentage of private land, two special zones with accompanying strategies have been established for this planning unit:

Bulkley Valley Sub-unit 7-2 reflects settled areas. Its objective is to minimize the impacts on wildlife habitat and water supply while allowing future residential, commercial and industrial development on Crown land. Bulkley Valley Sub-unit 7-3 is identified to enhance the agricultural or wildlife capacity of the land.

A different approach than that taken in other planning units is required here for biodiversity because of the high percentage of private land. In addition, the Forest Ecosystem Network requires a high degree of

cooperation between landowners and government agencies, as it applies only to Crown Land.

The relative importance of wildlife values is high, as some of the most productive wildlife habitats within the Bulkley Plan Area occur within this unit. The extensive amount of deciduous forest supports the abundant populations of birds and other wildlife. The Bulkley River Valley area supports both mule and whitetail deer populations. The main concern with this species is the loss of mature forest for winter range. Both have similar winter range requirements. Mule deer are the most numerous with populations stable or increasing. Whitetail populations are low but increasing. The area around Coffin Lake is of primary concern. However, most mule deer winter range is located on private land and is therefore not directly affected by the LRMP.

Moose populations in the Bulkley Plan Area have grown due to human related development, largely from the creation of summer foraging habitat. Moose prefer areas of disturbance, particularly within riparian areas and forest habitats in early successional stages. Its winter range can be described as old burn sites, large river riparian zones and oxbows, shrub wetland complexes and deciduous stands where browse is abundant. Most of the Class I and II capability moose winter ranges are found within this planning unit. Moose also require mature or old growth coniferous forests in mid- and late-winter months when the snowpack is high and movement is easiest because the snow is intercepted by the canopy. Moose, during winter foraging, prefer to move along the edges or between stands of mature forest.

In addition, waterfowl are found in the many important wetlands and associated lakes.

The relative importance for fisheries values in this unit are high for spawning, rearing, water quality and recreational fishing. Trout fishing occurs on many of the lakes, such as Duckwing Lake. Some lakes are used for ice fishing, such as Call, Seymour, Kathlyn, and Bigelow. The Bulkley River is a Class II angling water and is a very productive fish stream. They attract extensive recreational and guided fishing.

Highway 16 is the most travelled corridor within the Bulkley Plan Area. Both locals and tourists enjoy lovely vistas of the surrounding countryside including rural and mountainous settings. The face of Hudson Bay Mountain and the east face of Reisetter Ridge are particularly visually sensitive. As agricultural leases occupy some of the foreground adjacent to the highway or main roads, management on these areas impacts this important scenic value.

The main recreational features include Tyhee, Seymour, Round, and Kathlyn lakes, Bulkley River, and Moricetown Falls. A provincial park is situated at Tyhee Lake. High recreational use includes hunting, angling, picnicking, camping, rafting, kayaking, canoeing on the Bulkley and Telkwa rivers, and viewing salmon at Moricetown Canyon.

Recreational sites include Fort Telkwa RV Park, Riverside Golf and RV Park, Smithers Municipal Campground, Trout Creek, and Moricetown Canyon campsites, several angling lodges, bed and breakfasts, and local hotels which are busy during hunting, angling and skiing seasons.

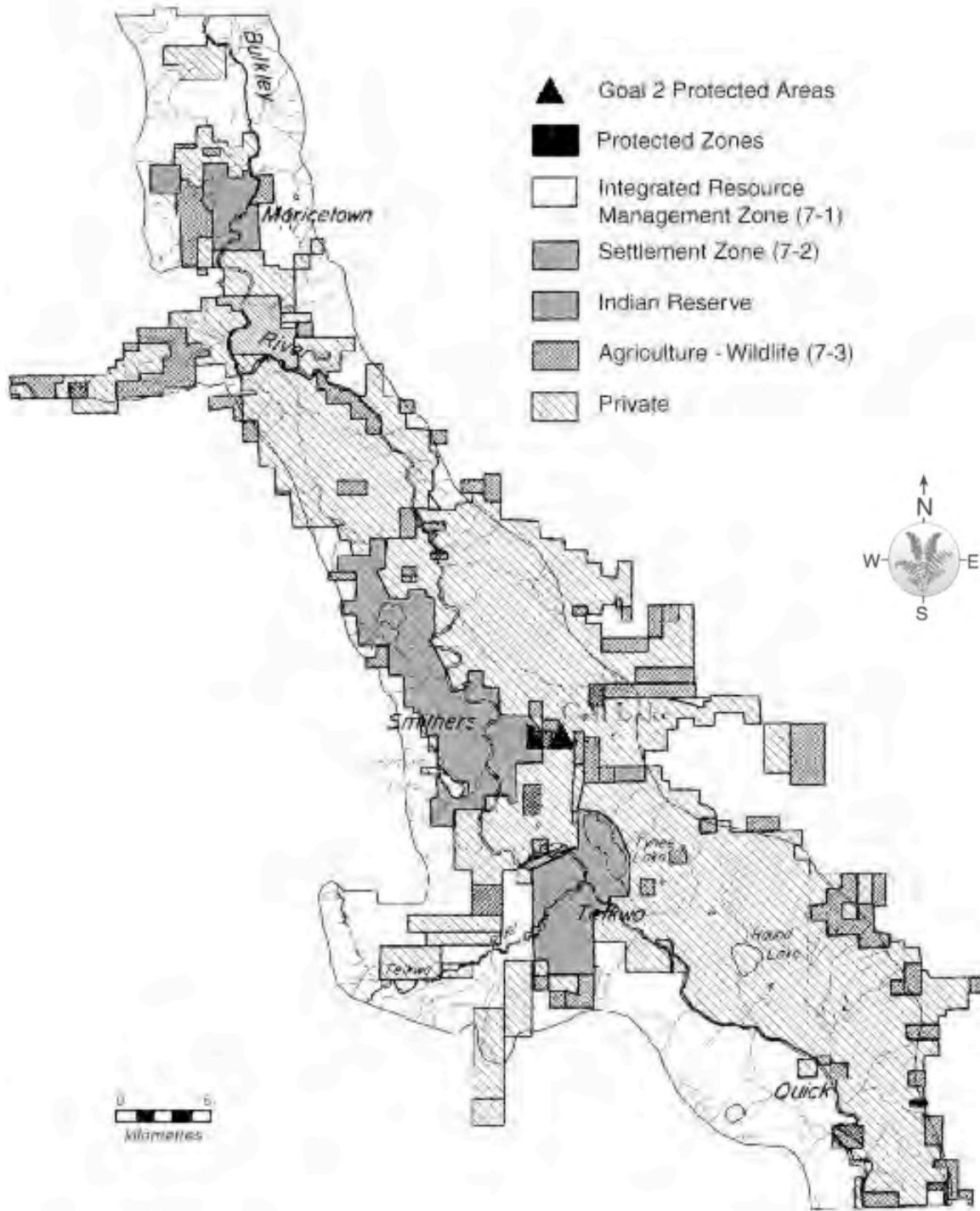
Agricultural development is significant in this planning unit and is primarily comprised of beef and dairy production, but also includes sheep, swine, and goats. Hay production and a limited amount of grain, vegetable, horticulture, and berry production also occurs. Horses are raised for sale, pleasure and for commercial use such as guiding or trail riding. The estimated range use in this planning unit is 2,497 Animal Unit Months, or 41% of the Bulkley Plan Area program. There are 18 grazing licenses or permits and eight grazing leases which cover deciduous and mixed wood forests, and clearcut forage types.

This Planning Unit is within the traditional territory of the Wet'suwet'en (Djogaslee, Woos, Wah Tah Keght, and Smogelgem houses).

Given the residential and rural characteristics of this Planning Unit, crown land is limited, and the operable landbase within the Bulkley Valley accounts for only 4.6% of the Bulkley Plan Area's operable landbase. Thirty-seven percent of this has been logged to date, and a large portion of this has been converted to agricultural uses.

The mineral potential of this Planning Unit is moderate in the southern one quarter and high elsewhere. Coal, clay and multi-mineral vein occurrences characterize the mineral potential of the three occurrences in this planning unit. Coal deposits on the north and south sides of the Telkwa River are potentially for development.

Planning Unit 7: Bulkley Valley



Planning Unit 7: Bulkley Valley

The following applies to the Bulkley Valley Planning Unit as a whole and Sub-unit 7-1: Bulkley Valley (IRM)

Objective: To manage for a variety of values and activities in an integrated and compatible manner *and to ensure the management of biodiversity is a priority on remaining Crown Land.*

| Management Category | Specific Direction |
|----------------------------------|--|
| Biodiversity | <ul style="list-style-type: none">• The management for biodiversity will be a priority on Crown Land.• Agencies will co-operate with landowners and co-ordinate planning with other levels of government in the implementation of the Ecosystem Network.• Retain significant recreation sites and areas of significant biodiversity as Crown land.• Undertake inventories of red and blue-listed plant species and ecosystems.• Manage Call Lake as a Goal 2 Protected Area. |
| Access | <ul style="list-style-type: none">• Ensure Malkow Lookout access is non-motorized only. |
| Timber Management | <ul style="list-style-type: none">• Harvesting and management will be highly sensitive to all other resources: urban, agriculture, wildlife, fisheries, water, urban/rural interface.• Place a high priority on Provincial Forest Land for integrating biodiversity and wildlife with timber management. |
| Water Quality | <ul style="list-style-type: none">• Maintain and restore quality on Bulkley and Telkwa Rivers and their tributaries.• Maintain and restore water quality in all valley bottom lakes. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none">• Agencies will focus management on winter habitat for ungulates, migratory birds, and fisheries in the Bulkley and Telkwa Rivers.• Encourage local government to require future land developments to provide wildlife and aquatic habitat.• Promote conservation covenants for habitat protection.• Toboggan and Kathlyn Creek are regionally significant spawning areas and the associated watersheds are a priority for watershed assessments. |
| Visual Quality | <ul style="list-style-type: none">• Consider visual quality in community and resource development planning, especially travel corridors: Highway 16, Bulkley River and Telkwa High Road. |
| Range Management | <ul style="list-style-type: none">• Sustain and enhance the agricultural industry in this planning unit• Foster and encourage cooperation between range and other users and land values.• Foster cooperation in agricultural land development for biodiversity and sustainability.• New tenures will encourage biodiversity guidelines.• Give notification (including to surrounding residents) before new agriculture leases are issued. |

Sub-unit 7-1 continued

| Management Category | Specific Direction |
|---------------------------------------|---|
| Outdoor Recreation and Tourism | <ul style="list-style-type: none"> • Agencies will provide management to address recreational user conflicts, including the Bulkley River. • Encourage use of this planning unit as the front country service hub for tourism and recreation in the planning area. |
| Subsurface Resources | <ul style="list-style-type: none"> • Maintain opportunities for coal, sand and gravel resource extraction. • Consider coal resource development impacts on Telkwa River at all stages of exploration and development. |
| Cultural Heritage Sites | <ul style="list-style-type: none"> • Development will be sensitive to the high archeological potential of this planning unit. |
| Future Planning Processes | <ul style="list-style-type: none"> • Agencies will consult with local government before issuing new long term tenures or proceeding with development plans, and when reviewing Crown land resource management proposals. The Regional District and municipalities will be encouraged to consult with resource agencies when changing Official Community Plans. |

Planning Unit 7: Bulkley Valley

Sub-unit 7-2: Valley Settlement Zone (S)

Objective: to minimize the impacts on wildlife habitat and water supply while allowing future residential, commercial and industrial development on Crown land.

| Management Category | Specific Direction |
|----------------------------------|--|
| Biodiversity | <ul style="list-style-type: none"> • MoELP will complete the establishment of wildlife habitat map reserves under Section 12 of the Land Act. • MoELP will identify habitat sub-zones to minimize the impact of future development on habitat and water quality. Sub-zone management strategies will guide municipal planning. |
| Access | <ul style="list-style-type: none"> • Retain public access corridors to Crown land to allow emergency response to control fires, beetle disease and outbreaks. • Maintain existing access to Crown land. • Retain existing recreation trails. • Establish public rights-of-way prior to land alienation. |
| Timber Management | <ul style="list-style-type: none"> • Control infestations of insects, diseases and noxious weeds to prevent their spread. • Manage for natural regeneration; possibly exempt basic silviculture obligations if land is suitable for agricultural uses. |
| Water Quality | <ul style="list-style-type: none"> • Minimize impact of settlement on water supply. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none"> • Follow the Biodiversity direction. • Minimize impact of settlement on habitat. |

Sub-unit 7-2 continued

| Management Category | Specific Direction |
|---------------------------------------|--|
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">• Maintain existing recreation trails.• Where possible, provide opportunity to establish new trails that link the Settlement Zone and the Agriculture/ Wildlife Zone to the IRM Zone. |
| Future Planning Processes | <ul style="list-style-type: none">• This LRMP supports community expansion within designated community growth boundaries.• The LRMP supports the purpose and intent of the ALR through the <i>Agricultural Land Commission Act</i>. |

Planning Unit 7: Bulkley Valley

Sub-unit 7-3: Valley Agriculture/Wildlife Zone (A/W)

Objective: Activities and development must enhance the agricultural or wildlife capacity of the land.

| Management Category | Specific Direction |
|----------------------------------|---|
| Biodiversity | <ul style="list-style-type: none">• Forest Ecosystem Networks approved by this LRMP will not be alienated unless suitable replacements can be found.• Apply appropriate conservation management measures to protect rare and endangered, sensitive and vulnerable, and regionally significant species and plant communities.• BC Environment will track percentage and distribution of Crown land plant communities to guide referral comment on development proposals. |
| Access | <ul style="list-style-type: none">• Retain public access corridors to Crown land to allow emergency response to control fires, beetle and disease outbreaks.• Maintain existing access to Crown land.• Establish public rights-of-way prior to land alienation. |
| Timber Management | <ul style="list-style-type: none">• Control infestations of insects, diseases and noxious weeds to prevent their spread.• Manage for natural regeneration; basic silviculture obligations may be exempted.• Manage for basic silviculture; no incremental silviculture.• Encourage use of domestic livestock for brushing and weeding.• Designate cottonwood and aspen as acceptable species. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none">• Agencies will carefully review referrals of land development proposals.• Strive for integration of Crown land resources; where agriculture development is considered, protect high wildlife habitat. |
| Visual Quality | <ul style="list-style-type: none">• Protect visual quality by encouraging partial cutting systems and minimizing the size of clearcut openings. |

| Management Category | Specific Direction |
|---|--|
| Range and Agriculture Management | <ul style="list-style-type: none"> • Allow suitable Crown lands to be alienated for agriculture uses via the current Crown Agriculture Lease policy (1990) in accordance with wildlife habitat objectives. • Minimize conflicts between wildlife and recreation enhancement uses with private agricultural operations and Crown grazing. • Improve local public participation role in wildlife enhancement and recreational plans in livestock grazing and agricultural areas. • Maintain or enhance the access and use of Crown water resources for agricultural uses. (Refer to the Department of Fisheries and Oceans and the BC Environment Water Management Branch for comment). • Control noxious weeds by implementing Noxious Weed Control Plans prepared by the Northwest Weed Committee and enforcing the <i>Weed Control Act</i>. • Develop target Animal Unit Month levels for the Plan Area. • As required, develop mechanisms to minimize impacts between domestic livestock and wildlife uses of grazing resources (land, water, vegetation, access) based on enhancement and sustainability of the resource. • Use the context of the Forest Practices Code, Protected Areas Strategy, and Community Watershed guidelines to maintain or enhance the access and use of Crown land and water resources by livestock. • Encourage the use of domestic livestock for silvicultural vegetation control. • Apply the Code of Agricultural Practices for Waste Management, <i>Waste Management Act</i>. • Refer agricultural pollution problems via Agricultural Protection Council through the British Columbia Cattlemen’s Association (BCCA), or the British Columbia Federation of Agriculture (BCFA). • Promote agricultural land and water stewardship through public education. • Control infestations of insects, diseases and noxious weeds to prevent their spread. • Encourage range tenures; include requirements to protect silviculture investments. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none"> • Maintain existing recreation trails. • Provide opportunity to establish new trails that link the Settlement zone, and the Agriculture / Wildlife zone to the IRM zone. |
| Future Planning Processes | <ul style="list-style-type: none"> • Agencies will consult with local government before issuing new long term tenures or proceeding with development plans, and when reviewing Crown land resource management proposals. The Regional District and municipalities will be encouraged to consult with resource agencies when changing Official Community Plans. |

2.4.8 Planning Unit 8: Corya

This planning unit covers 19,682 hectares, and is important as it contains the community watershed that supplies the Moricetown community's water supply.

It is within the traditional territory of the Wet'suwet'en (Wah Tah Keght house).

The relative importance of wildlife values are moderate, with an emphasis, however, on bear and goat habitat. The relative importance of fisheries values are low for spawning, rearing, and water quality. Most fish remain in the lower reaches of the tributaries to the Bulkley River which are outside this unit.

This unit is classified as 71% Semi Primitive according to the Recreation Opportunity Spectrum. Landscapes in this unit are visible from Highway 16. The main recreational features are portions of the Rocher Deboule Range including Brian Boru Peak and Rocky Ridge, Boulder Creek, John Brown Creek and Corya Creek. The Brian Boru Mountain area is used recreationally by mountain bikers, hikers, mountaineers, and all-terrain vehicles and is also used commercially for ski mountaineering and rock climbing.

The operable landbase accounts for only 1.3% of the Bulkley Plan Area's operable landbase, most of which supports stands of pulplogs, with intermittent stands of sawlogs. Given the steep terrain within this Planning Unit, only twenty percent of this planning unit is considered operable, only 2% of which has been logged to date.

The mineral potential in this unit is high. Five mineral occurrences in this planning unit indicate predominately molybdenum and copper mineralization potential.

Planning Unit 8: Corya

Sub-unit 8-1: Upper Corya Creek (SM2)

Objective: Maintain visual quality and promote the recreation opportunities that exist in this area.

| <i>Management Category</i> | <i>Specific Direction</i> |
|----------------------------|--|
| Access | <ul style="list-style-type: none">Snowmobile use and its impact on wildlife will be assessed. Restrictions will be applied if assessments indicates a negative impact. |
| Visual Quality | <ul style="list-style-type: none">Views are highly sensitive and development plans will include prescriptions that manage the views from Highway 16. |

Planning Unit 8: Corya Creek



Sub-unit 8-1 continued

| Management Category | Specific Direction |
|---------------------------------------|---|
| Outdoor Recreation and Tourism | <ul style="list-style-type: none"> • Promote recreational opportunities. • Maintain and enhance linking trail systems. • Manage with emphasis on recreation. • Encourage commercial backcountry recreation development subject to normal review and approval processes. |
| Future Planning Processes | <ul style="list-style-type: none"> • Consult with the community of Moricetown and with Kispiox Forest District in developing future plans. |

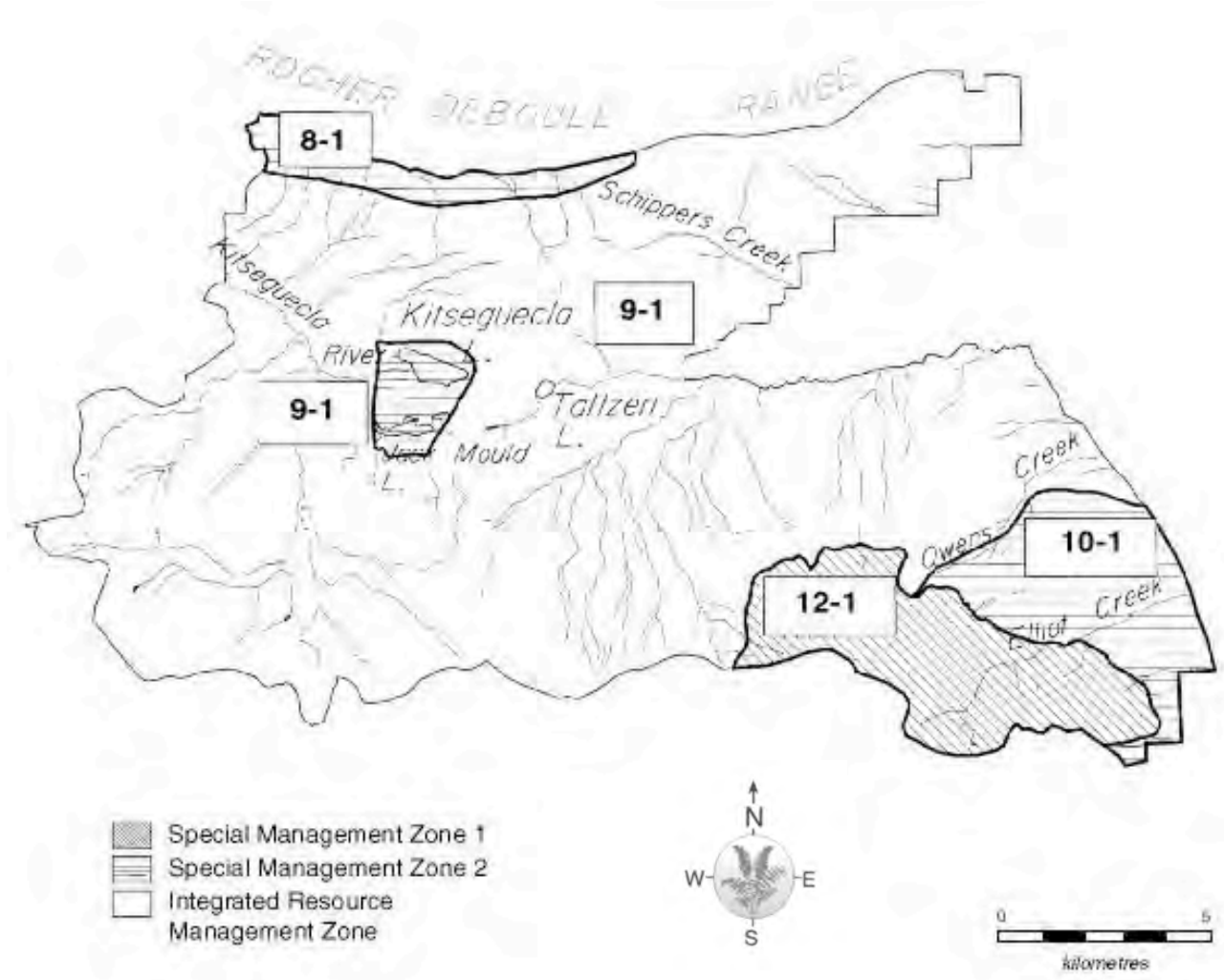
Planning Unit 8: Corya

Sub-unit 8-2: Corya Creek (IRM)

Objective: To manage for a variety of values and activities in an integrated and compatible manner.

| Management Category | Specific Direction |
|---------------------------------------|--|
| Biodiversity | <ul style="list-style-type: none"> • Include Interior Cedar-Hemlock (mc1a) and adjacent Engelmann Spruce- Subalpine Fir within the Ecosystem Network. • Manage Boulder Creek as a Goal 2 Protected Area. |
| Access | <ul style="list-style-type: none"> • Maintain an access corridor through Boulder Creek Protected Area. • Visually screen main haul roads to protect habitat interests. |
| Water Quality | <ul style="list-style-type: none"> • Recognize community watersheds as having significant values, and manage for all special requirements under the Forest Practices Code. |
| Visual Quality | <ul style="list-style-type: none"> • Views are highly sensitive and development plans will pay special attention to the views from Highway 16. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none"> • Maintain and enhance linking trail systems. • Provide access to Sub-unit 8-1. |
| Future Planning Processes | <ul style="list-style-type: none"> • Consult with the community of Moricetown in future planning. |

Planning Unit 9: Kitsequecla



2.4.9 Planning Unit 9: Kitseguetia

The Kitseguetia Planning Unit covers 26,129 hectares and is within the traditional territory of Gitksan in the west and the Wet'suwet'en (Guxan, Wah Tah Keght, and Duubsixw houses) in the east.

The important habitat types within the Kitseguetia Planning Unit are streamside riparian areas and adjacent upland forests, steep south facing slopes, lakeshore riparian areas, wetlands, deciduous forest types, moist forest types, and avalanche chutes. The relative importance of wildlife values is moderate. There is high capability winter habitat for mountain goats present. Grizzly bear habitat is suitable but the use is moderate due to agricultural development. Moose winter on aspen slopes.

The relative importance of fisheries values in this unit are moderate for spawning, rearing, water quality and recreational fishing. Lakes contain resident sport fish and the Kitseguetia River is a classified angling river. Salmon spawning occurs in the headwaters of the Kitseguetia River and the outlet of Kitseguetia Lake.

The main recreational features include Kitseguetia, Taltzen, and Jack Mould Lakes, as well as numerous streams including Trout Creek and Kitseguetia River. There are two Forest Service recreation sites at Kitseguetia Lake and Taltzen Lake. There are three trails: Jack Mould Trail which accesses Jack Mould Lake and the Owen Creek and Elliot Creek Trails.

Some hunting, canoeing, backpacking, trail-riding, camping, and angling occur within this unit. There is also a commercial trail-riding business based in Evelyn, and a commercial resort west of Kitseguetia Lake with cabins and trail-riding available. As well, this unit contains domestic water licenses.

Visual quality from Kitseguetia, Taltzen and Jack Mould Lakes and Highway 16 is an important feature. The Nipples and Rocky Ridge are unique within the Bulkley Plan Area as an example of a sawtooth mountain formation.

Agriculture is limited and consists mostly of beef production with a minor component of sheep.

The estimated range use in this Planning Unit is 573 Animal Unit Months, or 9% of the Bulkley Plan Area's program. There are six grazing licenses or permits and four grazing leases on clearcut, mixed wood and deciduous forests, and natural meadow forage types.

The Kitseguetia Planning Unit accounts for 5% of the Bulkley Plan Area's operable landbase. Sixty percent of the planning unit is operable, a large portion of which is hemlock pulp stands. Early development of this

Planning Unit has resulted in over 20% of the operable forest having been logged and planted to date.

The mineral potential of this Planning Unit is high. Coal and base metal prospects comprise the two known mineral occurrences found within this planning unit.

Planning Unit 9: Kitsequecla

Sub-unit 9-1: Kitsequecla (IRM)

Objective: To manage for a variety of values and activities in an integrated and compatible manner.

| <i>Management Category</i> | <i>Specific Direction</i> |
|---------------------------------------|--|
| Biodiversity | <ul style="list-style-type: none"> Recognize unique diversity of landbase and manage the remaining older forests to maintain and restore forest connectivity. Management will focus on opportunities to maintain aquatic and valley bottom biodiversity. |
| Access | <ul style="list-style-type: none"> Future building of permanent access structures will stay at least 1 km from the Kitsequecla River. Any branch roads within 1 km will be deactivated. No deactivation to the existing road will take place. |
| Timber Management | <ul style="list-style-type: none"> Management of the timber resource will emphasize hydrological stability and maintenance of ecosystem network within the valley. |
| Water Quality | <ul style="list-style-type: none"> Maintain water quality in all creeks and tributaries used for domestic water supply. Relevant agencies will develop a buffer plan for Kitsequecla and Jack Mould Lakes. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none"> Manage to protect the quality of experience and environment in view of the current intensive use, and the resort tenures. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none"> Manage to maintain the fisheries values associated with the Kitsequecla River. The reach below Kitsequecla Lake, the confluence of the Kitsequecla River and Kitsuns Creek, and the lower three kilometres of the Kitsequecla River are regionally significant spawning areas and are a priority for watershed assessments. |
| Visual Quality | <ul style="list-style-type: none"> Development plans will include prescriptions that manage the size and contour of cutblocks to protect the long distance views of Rocky Ridge. |
| Range Management | <ul style="list-style-type: none"> Consider forage seeding in silviculture prescriptions. |
| Future Planning Processes | <ul style="list-style-type: none"> Consult with Kitsequecla Valley residents and tenure holders when developing future timber plans. |

Planning Unit 9: Kitsequecla

Sub-unit 9-2: Jack Mould Lake (SM2)

Objective: Maintain visual quality and promote the recreation opportunities that exist between and around Jack Mould and Kitsequecla Lakes.

| Management Category | Specific Direction |
|---------------------------------------|---|
| Biodiversity | <ul style="list-style-type: none">• Provide connectivity between Kitsequecla and Jack Mould Lake by maintaining mature forest cover. |
| Visual Quality | <ul style="list-style-type: none">• Development plans will include prescriptions that pay special attention to the views from both lakes. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">• Maintain walk-in only status to Jack Mould Lake. |

2.4.10 Planning Unit 10: Hudson Bay Mountain

Hudson Bay Mountain covers 12,758 hectares and is within the traditional territory of the Wet'suwet'en (Wah Tah Keght and Woos houses).

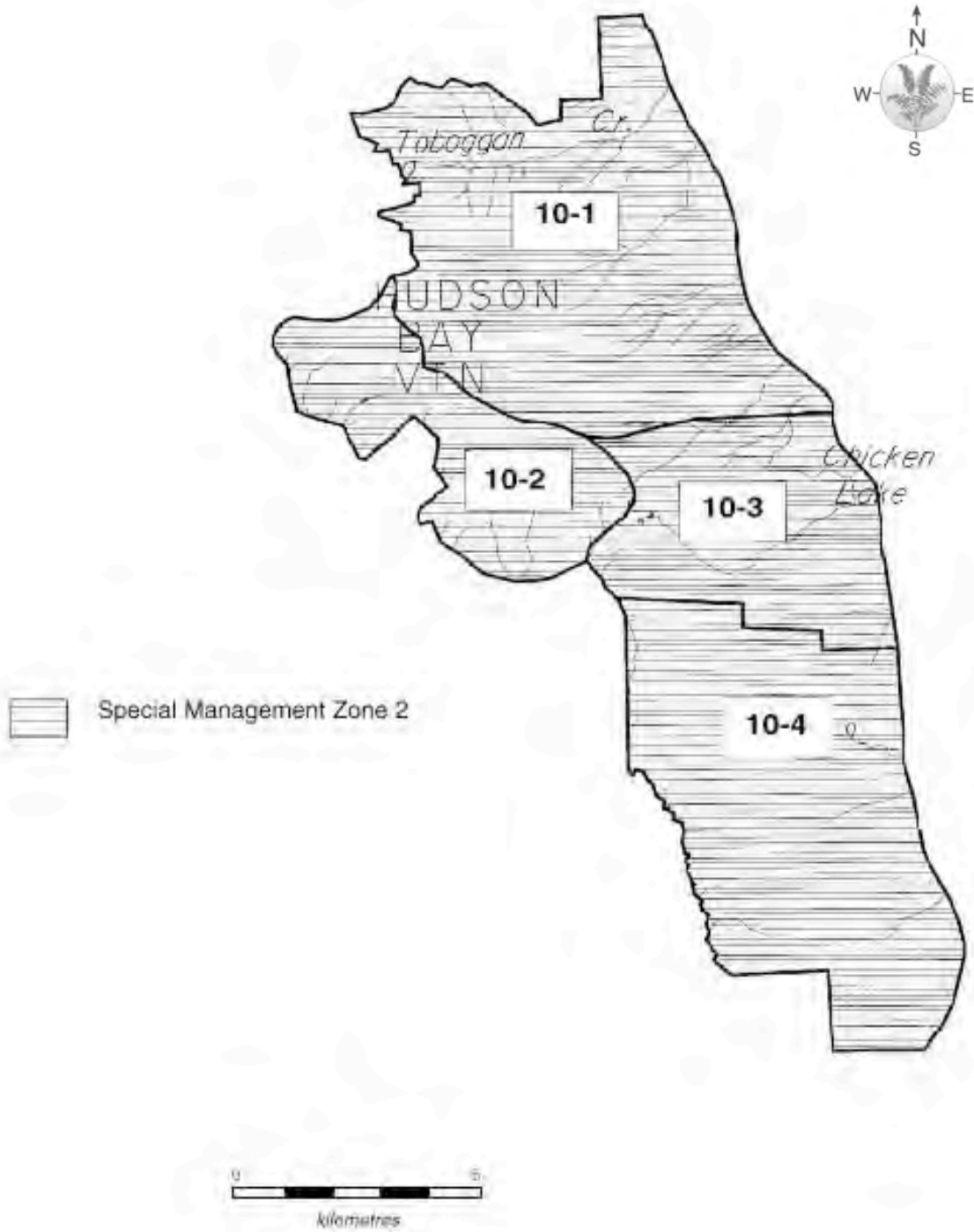
The relative importance for wildlife values is moderate, with the high capability winter range for mountain goats being the most important. The populations are reported to be stable although localized declines have occurred as a result of increased access (BC Environment, Ministry of Environment, Lands and Parks, January 1995).

The main recreational features include waterfalls, wildlife, glaciers, cross country and interpretive trails at the Smithers Community Forest, and alpine lakes. Historical features include old mill and mine sites, trails that were originally built to access mining claims and fossil beds.

Recreational use includes hiking, ice climbing, cross-country skiing, and wildlife viewing. There are numerous trails, with the one at the Twin Falls Recreation Site being the most heavily used. In addition, there is a commercial ski hill development with recreational cabins at Ski Smithers, and a cross country lodge and trail system.

This unit is classified as 24% Semi Primitive according to the Recreation Opportunity Spectrum. Landscape is one of the most important features in this Planning Unit. Its proximity to Smithers, and visibility from both Highway 16 and from Ski Smithers make this unit a highly sensitive area. The estimated range use is 50 Animal Unit Months, or less than 1% of the Bulkley Plan Area program. There is one grazing license on a primarily mixed wood forest forage type.

Planning Unit 10: Hudson Bay Mountain



This unit accounts for 1.4% of the Bulkley Plan Area’s operable landbase. Thirty-five percent of the Planning Unit is operable containing a mixture of good and marginal quality sawlog stands, as well as pulp stands. Much of this area has been selectively harvested historically by small operators, some with portable mills. Three percent of the operable forest has been logged and planted to date.

The mineral potential in this Planning Unit is high throughout. The 17 mineral occurrences are predominately of precious and base metal, vein-style. A notable molybdenum, bulk tonnage, deposit has been delineated in Glacier Gulch.

Planning Unit 10: Hudson Bay Mountain

Sub-unit 10-1: Glacier Gulch (SM2)

Objective: Maintain the visual and water qualities of this area.

| <i>Management Category</i> | <i>Specific Direction</i> |
|---------------------------------------|--|
| Biodiversity | <ul style="list-style-type: none"> Rare ecosystems known to exist in this unit will be incorporated into the Ecosystem Network (Eg. SBSdk-81, a Juniper-Scrub ecosystem). |
| Access | <ul style="list-style-type: none"> Retain existing roads. New development (roads) must take into account the extreme visual sensitivity of the area. |
| Timber Management | <ul style="list-style-type: none"> Low impact timber management (single tree/group selection) is to be done to maintain visual quality and forest health. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none"> Protect water source for fish hatcheries and Lake Kathlyn. |
| Visual Quality | <ul style="list-style-type: none"> Development plans must maintain visual quality. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none"> Encourage a network of hiking trails. Toboggan Glacier Road will remain in its present state, subject to subsurface exploration and development. Review and approval processes will ensure reclamation will occur following any industrial activities. |
| Water Quality | <ul style="list-style-type: none"> Maintain water quality. |
| Subsurface Resources | <ul style="list-style-type: none"> Visual quality is a high priority. Address visual quality maintenance in review of developments, and minimize impacts to the greatest possible extent. |

Planning Unit 10: Hudson Bay Mountain
 Sub-unit 10-2: Hudson Bay Mountain (SM2)

Objective: Recreation has a high priority in this area. Maintain existing hiking trails and encourage commercial backcountry recreation. Visual quality must be maintained in keeping with the recreation objective.

| <i>Management Category</i> | <i>Specific Direction</i> |
|---------------------------------------|--|
| Access | <ul style="list-style-type: none"> Access will be restricted to non motorized trails, with exceptions for mining development. Mining roads will be reclaimed immediately when no longer needed. |
| Visual Quality | <ul style="list-style-type: none"> Maintain current visual quality. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none"> Encourage a network of hiking trails as in Sub-unit 10-1 Permit commercial backcountry tourism, subject to normal review and approval processes. |
| Subsurface Resources | <ul style="list-style-type: none"> Recognize the potential of past producing mines in this area. Maintain opportunities for mineral extraction. |

Planning Unit 10: Hudson Bay Mountain
 Sub-unit 10-3: Ski Smithers (SM2)

Objective: To encourage commercial and public recreation in this area subject to visual quality constraints.

| <i>Management Category</i> | <i>Specific Direction</i> |
|---------------------------------------|---|
| Biodiversity | <ul style="list-style-type: none"> No facilities or motor vehicles will be operated on the grassy tundra portion of the prairie, west of the existing ski boundary. |
| Access | <ul style="list-style-type: none"> The road to the ski facility may be maintained and improved as necessary, subject to visual quality constraints. |
| Timber Management | <ul style="list-style-type: none"> Manage to emphasize recreation opportunities. Low impact timber management (single tree/group selection) to maintain visual quality and forest health. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none"> Encourage commercial tourism and public recreation development subject to visual quality constraints. |
| Future Planning Processes | <ul style="list-style-type: none"> Any future process management must emphasize visual quality. |

Planning Unit 10: Hudson Bay Mountain

Sub-Unit 10-4: Community Forest (SM2)

Objective: To provide community recreation and education in a demonstration forest. Any plan for this area must follow the Smithers Community Forest Steering Committee Plan.

| <i>Management Category</i> | <i>Specific Direction</i> |
|---------------------------------------|---|
| Biodiversity | <ul style="list-style-type: none">• Incorporate and maintain a desired mix of habitats into the long-term plan. |
| Access | <ul style="list-style-type: none">• Develop a road and trail network compatible with other uses. |
| Timber Management | <ul style="list-style-type: none">• Provide small scale demonstration harvesting and silviculture activities. |
| Water Quality | <ul style="list-style-type: none">• Ensure local community watersheds are protected. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none">• Maintain diversity and abundance of existing species.• Well used, easily accessed portions of this area shall be designated as a no shooting zone. |
| Visual Quality | <ul style="list-style-type: none">• Plan activities to minimize visual impacts on other users. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">• Create and improve opportunities, recognizing a diversity of compatible interests. |
| Subsurface Resources | <ul style="list-style-type: none">• Maintain opportunities for development of coal deposits. |
| Future Planning Processes | <ul style="list-style-type: none">• Agencies will cooperate with the Smithers Community Forest Steering Committee in future planning. |

2.4.11 Planning Unit 11: Telkwa

The Telkwa Planning Unit covers 114,467 hectares in an area south of Smithers in the transition between coastal and interior climates. It is within the traditional territories of the Wet'suwet'en (Wah Tah Keght, Woos, and Hagwilnegh houses).

The relative importance for wildlife values are high. The Telkwa Range supports an isolated caribou herd that has been identified for rehabilitation. From a minimum of 271 caribou in 1965, the Telkwa Mountain caribou herd declined to about 13 in March 1996, despite a complete closure on hunting after 1973. Causes of the decline are subjective and include over-hunting in the 1960s, chronic poor recruitment of calves due to predation, and range abandonment due to human-caused disturbances, particularly snow machines in winter.

Mountain goats are abundant. Since this population is not hunted in this area, these goats are studied in order to gather baseline habitat and population data. But, as timber harvesting shifts into the Engelmann

Spruce-Subalpine Fir biogeoclimatic zone, access to goat habitat will increase, possibly placing greater stress on goat populations. The populations are reported to be stable although localized declines have occurred as a result of increased access (BC Environment, January 1995).

Grizzly bear sightings have occurred near the Telkwa River and in the Telkwa Ranges. Class I and II moose winter range exist along the valley bottoms adjacent to the Telkwa River. Small fur-bearers are actively trapped. Waterfowl use the wetlands in the Mooseskin Johnny Lake area.

The relative importance of fisheries values are high for spawning, rearing, and recreational fishing. Salmon rear and spawn in the lower tributaries to the Telkwa River.

This unit is classified as 5% Primitive and 50% Semi-primitive according to the Recreation Opportunity Spectrum. The landscape within this unit can be seen from Highway 16 and the ski hill and is therefore sensitive.

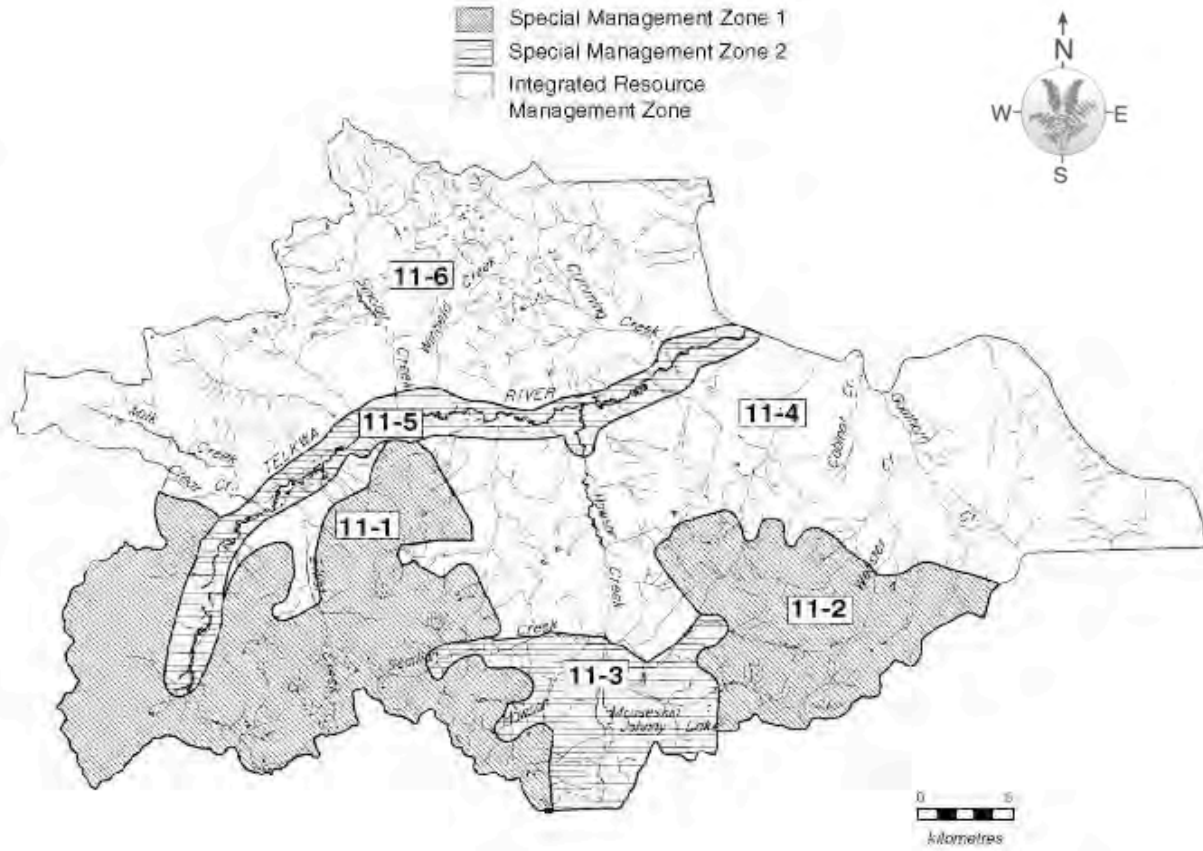
The main recreational features in the Telkwa Mountains are: the Telkwa River and several major creeks including Goathorn, Howson, Jonas, Winfield, Sinclair, and Milk; several mountain ranges including the Telkwa and Howson Ranges; and the Mount Leach/Microwave area to the north. There is also an old mine site at Hunter Basin.

Recreational use is moderate to high for kayaking and canoeing, hiking, angling, camping, trail-riding, hunting, snowmobiling, and wildlife viewing. A commercial hunting guide operates from Mooseskin Johnny Lake. As well, there is a variety of well used trails into the Telkwa Mountains, and two recreation sites on the Telkwa River.

This unit accounts for 11.4% of the Bulkley Plan Area's operable landbase. Thirty-one percent of the planning unit is operable, mainly containing stands of good quality sawlogs, with intermittent stands of marginal quality sawlogs, as well as pulplogs. Over 20% of the operable forest within this Planning Unit has been logged to date.

The mineral potential within this Planning Unit is moderate in the eastern portion, increasing to high in the west. Significant coal potential exists along the eastern boundary. There are 42 mineral occurrences in this planning unit. The mineral potential is significant for three styles of mineralization: vein, bulk tonnage and coal. Three properties, in Hunter's Basin, have produced copper, silver and gold from veins. Bituminous coal production has come from deposits on the south side of the Telkwa River.

Planning Unit 11: Telkwa River



Planning Unit 11: Telkwa

Note: The following concerns apply as General Management Directions for the entire planning unit.

Erosion and sedimentation concerns

- Recognize sensitive terrain in the watershed i.e. Pine Creek.
- Identify sensitive areas and specific hydrological concerns.

Caribou concerns

- Develop a comprehensive plan to enhance and sustain a viable caribou population.

Commercial backcountry recreation

- Note that opportunities exist in all sub-units.

Sub-unit 11-1: Howson Range (SM1)

Objective: Maintenance of caribou and goat habitat is the primary consideration in this area, and visual quality is a major consideration. Industrial activity must not significantly alter winter habitat or visual qualities.

| Management Category | Specific Direction |
|---------------------------------------|---|
| Biodiversity | <ul style="list-style-type: none">• Conserve caribou and goat habitat. |
| Access | <ul style="list-style-type: none">• Minimize impacts on critical winter habitat and populations of caribou and goat. Restrict motorized access as required.• Agencies will identify specific areas for restrictions.• Discourage circle route to Morice District. |
| Timber Management | <ul style="list-style-type: none">• Timber harvesting is not allowed. Removal of trees is permitted only where required for approved mining exploration and development purposes, including access, and for other activities consistent with objectives and other specific direction for management stated in this planning unit and sub unit. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none">• Management emphasis is on caribou, as the caribou population is at risk.• Agencies will develop a comprehensive plan to sustain and enhance a viable caribou population.• Maintain caribou and goat habitat, particularly winter habitat.• The collection of goat baseline data will continue. |
| Visual Quality | <ul style="list-style-type: none">• These high elevations are visually sensitive from many areas. Special attention will be paid to views Highway 16 and the ski hill. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">• Permit wilderness recreation and backcountry tourism, subject to goat baseline study and caribou habitat. |
| Future Planning Processes | <ul style="list-style-type: none">• Consult with the Morice District to convey management intent of this area, and co-ordinate management in boundary areas. |

Sub-unit 11-1 continued

| Management Category | Specific Direction |
|-----------------------------|--|
| Subsurface Resources | <ul style="list-style-type: none">• Recognize the current high interest in mineral exploration.• Protect wildlife populations through review and approval processes.• Motorized access is permitted for mineral exploration/development, but will be controlled to protect caribou and goat habitat. |

Planning Unit 11: Telkwa

Sub-unit 11-2: Hankin Plateau (SM1)

Objective: To sustain and enhance a viable caribou population. To manage the visual quality.

| Management Category | Specific Direction |
|---------------------------------------|---|
| Biodiversity | <ul style="list-style-type: none">• Identify and conserve caribou habitat as in Sub-Unit 11-1. |
| Access | <ul style="list-style-type: none">• Restrict motorized access (as it relates to caribou habitat).• Agencies will identify specific areas for restrictions.• Agencies will consult with existing guide regarding a Telkwa River and Scallion Creek access control point.• Discourage circle route to Morice District. |
| Timber Management | <ul style="list-style-type: none">• Timber harvesting is not allowed. Removal of trees is permitted only where required for approved mining exploration and development purposes, including access, and for other activities consistent with objectives and other specific direction for management stated in this planning unit and sub unit. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none">• Place emphasis on caribou population at risk.• Agencies will develop a comprehensive plan to sustain and enhance a viable caribou population.• Identify and conserve caribou habitat . |
| Visual Quality | <ul style="list-style-type: none">• These high elevations are visually sensitive from many areas. Special attention will be paid to visual quality particularly as seen from Highway 16 and the ski hill |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">• Permit wilderness recreation and backcountry tourism opportunities, subject to caribou habitat requirements. |
| Future Planning Processes | <ul style="list-style-type: none">• Consult with the Morice District to convey management intent of this area, and co-ordinate management in boundary areas. |
| Subsurface Resources | <ul style="list-style-type: none">• Manage access for exploration and development so that wildlife populations are conserved.• Motorized access is permitted for mineral exploration/development, but will be controlled to protect caribou and goat habitat. |

Planning Unit 11: Telkwa

Sub-unit 11-3: Mooseskin Johnny Lake (SM2)

Objective: To protect the caribou habitat and the shallow lake and wetlands in this area, and to maintain the existing commercial backcountry tourism operation, while allowing industrial activity to occur.

| <i>Management Category</i> | <i>Specific Direction</i> |
|-----------------------------------|--|
| Biodiversity | <ul style="list-style-type: none">• Maintain forest connectivity between Sub-units 11-1 and 11-2.• Maintain values associated with the shallow lake, wetlands and aquatic ecosystems. |
| Access | <ul style="list-style-type: none">• Restrict motorized access (as it relates to caribou and goat habitat).• Government agencies will identify specific areas for restrictions.• Allow the current motorized access to commercial operation at Mooseskin Johnny Lake to continue.• Discourage circle route to Morice District.• Agencies will consult with existing guide regarding a Telkwa River and Scallion Creek access control point. |
| Timber Management | <ul style="list-style-type: none">• Conduct low impact management that recognizes the existing commercial backcountry tourism tenure and caribou habitat. |
| Water Quality | <ul style="list-style-type: none">• Management of the timber resource will include measures to maintain hydrology stability,• Any development will be designed to minimize impact on unstable terrain. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none">• Agencies will develop a comprehensive plan to sustain and enhance a viable caribou population.• Identify and manage caribou habitat. |
| Visual Quality | <ul style="list-style-type: none">• Special attention will be paid to views from the resort, lake and high elevation areas tied to timber above. |

Planning Unit 11: Telkwa

Sub-unit 11-4: Goathorn Creek (IRM)

Objective: To manage for a variety of values and activities in an integrated and compatible manner.

| <i>Management Category</i> | <i>Specific Direction</i> |
|-----------------------------------|---|
| Biodiversity | <ul style="list-style-type: none">• Agencies will develop a comprehensive plan to sustain and enhance a viable caribou population.• Identify and manage caribou habitat. |
| Access | <ul style="list-style-type: none">• Discourage circle route to Morice District.• Agencies will consult with existing guide regarding a Telkwa River and Scallion Creek access control point. |

Sub-unit 11-4 continued

| Management Category | Specific Direction |
|----------------------------------|--|
| Fish and Wildlife Habitat | <ul style="list-style-type: none"> • Agencies will develop a comprehensive plan to sustain and enhance a viable caribou population. |
| Water Quality | <ul style="list-style-type: none"> • Management of the timber resource will include measures to maintain hydrology stability. • Any development will be designed to minimize impact on unstable terrain. |
| Visual Quality | <ul style="list-style-type: none"> • Development plans will include prescriptions that pay special attention to the views from Highway 16 corridor. |
| Range Management | <ul style="list-style-type: none"> • Agencies will evaluate this unit for range potential, and potential range use expansion. |
| Subsurface Resources | <ul style="list-style-type: none"> • Maintain opportunities for coal exploration and extraction. |

Planning Unit 11: Telkwa

Sub-unit 11-5: Telkwa River (SM2)

Objective: To maintain and enhance the river corridor in this area; to maintain the water quality for fisheries, wetlands, and for deer and grizzly bear habitat.

| Management Category | Specific Direction |
|----------------------------------|--|
| Biodiversity | <ul style="list-style-type: none"> • Maintain structural diversity of the riparian area and landscape corridor associated with the Telkwa River. • Restore the area over time to a more natural state (i.e. through forest structure). • Assess potential for watershed restoration/rehabilitation. |
| Access | <ul style="list-style-type: none"> • Agencies will address concerns about the impact of the main road on the river corridor, specifically regarding the effects on recreational, fish, water quality and ecological values. • Assess the options of altering main road access. |
| Timber Management | <ul style="list-style-type: none"> • Maintain and enhance the health of the river corridor. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none"> • Agencies will develop a comprehensive plan to sustain and enhance a viable caribou population. • Maintain a wildlife corridor (for grizzly, deer, and wetlands). • Continue fisheries enhancement programs. • Continue ongoing fish and wildlife management. |
| Water Quality | <ul style="list-style-type: none"> • Maintenance of water quality is a priority in this sub-unit. • Management of the timber resource will include measures to maintain hydrological stability. • Any development will be designed to minimize impact on unstable terrain. • Tributaries to the Telkwa River where concentrations of spawning activity have been identified are regionally significant spawning areas and are a priority area for watershed assessments. |

Sub-unit 11-5 continued

| Management Category | Specific Direction |
|---------------------------------------|---|
| Range Management | <ul style="list-style-type: none">• Range use will not be expanded into this area. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">• Maintain the values associated with the river environment that make it desirable for outdoor recreation and tourism activities. |
| Future Planning Processes | <ul style="list-style-type: none">• Conduct a full environmental assessment on any pipeline or hydro development |

Planning Unit 11: Telkwa

Sub-unit 11-6: Sinclair Creek (IRM)

Objective: To manage for a variety of values and activities in an integrated and compatible manner.

| Management Category | Specific Direction |
|---------------------------------------|---|
| Access | <ul style="list-style-type: none">• Evaluate the need for new access to Pine Creek from McDonell Road |
| Timber Management | <ul style="list-style-type: none">• Development will minimize the impact on sensitive soils and terrain (i.e. Bulbous Toe and Pine Creek slumps) and reduce erosion and sediment transfer to the Telkwa River.• Management of the timber resource will include measures to maintain hydrological stability. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none">• Agencies will develop a comprehensive plan to sustain and enhance a viable caribou population.• Tributaries to the Telkwa River where concentrations of spawning activity have been identified are regionally significant spawning areas and are a priority for watershed assessments. |
| Visual Quality | <ul style="list-style-type: none">• Development will pay special attention to the views from the Bulkley River and Highway 16 |
| Range Management | <ul style="list-style-type: none">• Evaluate the area close to P.U. 7 for range potential (the same as for Sub-Unit 11-4). |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">• Maintain opportunities for high recreation use by bikers, hikers, skiers and snowmobilers, especially with access from the Microwave Road. |

2.4.12 Planning Unit 12: Copper (Zymoetz)

The Copper Planning Unit covers 95,897 hectares and comprises the upper portion of the Copper River system, including Aldrich and Dennis lakes which flow into the Zymoetz River which flows into, and becomes the Copper River in the adjacent Kalum Forest District. Parts of this unit, including Mulwain and Red Canyon Creeks, have been noted by the Seven Sisters planning process as having special values.

The relative importance of wildlife values is moderate. Caribou have been seen near the Copper River and in the Engelmann-Spruce Subalpine Fir Biogeoclimatic Zone. Bears have been sighted along the river and at higher elevations. There is a lot of good, heavily used summer range for moose, but their winter range is restricted to areas adjacent to lakes and the river lowlands between Aldrich lake and McDonnell Lake.

The relative importance of fisheries values is high for spawning, rearing, and recreational fishing. There are resident fish in Serb, Red Canyon, Mulwain, Coal, Silvern and Passby Creeks, as well as in Dennis, McDonnell, Hankin, Sandstone, and Louise Lakes. The Copper River is a classified water.

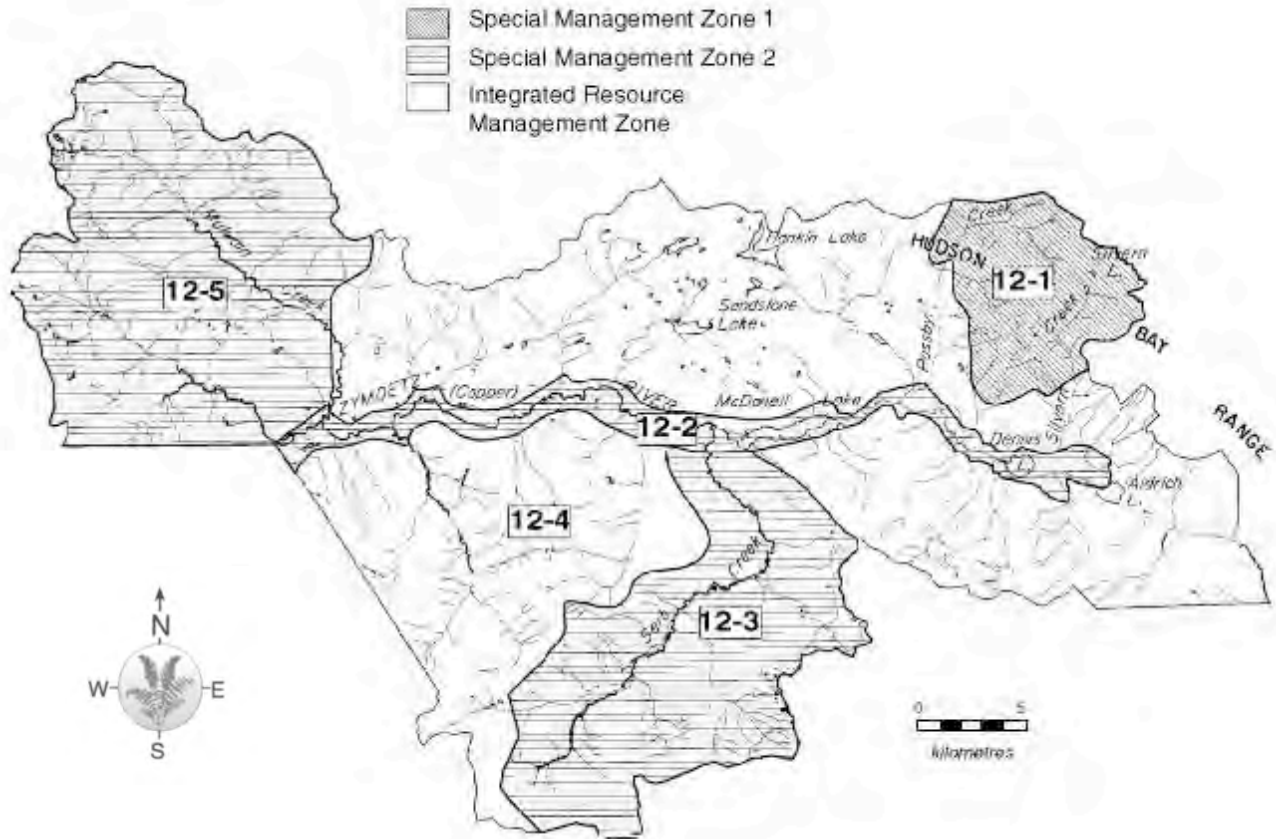
This unit is classified as 35% Primitive and 32% Semi Primitive according to the Recreation Opportunity Spectrum. Visually sensitive views can be seen from the Copper River as well as the ski hill.

The main recreational features are the Copper River, various lakes including McDonnell, Dennis, Hankin, Aldrich, Sandstone, and Louise, and Maxwell Falls on Davey Creek. There is a trail from McDonnell Lake to Hankin Lake, and an opportunity for a recreation site at Hankin Lake for a unique "boat-in" experience. There is also a McDonnell Lake trail located on the south side. The Silvern Lakes Trail has been adopted by the Bulkley Valley Backpackers for maintenance and improvements with equipment and supply assistance from the Forest Service.

A Forest Service Recreation Site on Dennis Lake is popular for picnics, fishing and camping. Passby Creek Trail is identified but the lower section is difficult to locate. The upper section that joins Passby Lake is used for commercial trail riding tours.

Recreational use is moderate to high and includes trail riding, camping, angling, backpacking, canoeing, picnicking, hunting, skiing, snowmobiling, dog sledding, and mountaineering. The Copper River Guest Ranch offers trail riding and cabins on McDonnell Lake. Commercial guides fish in the Copper River mainly during September and October. The unit contains seven water licenses.

Planning Unit 12: Copper (Zymoetz)



The estimated range use in this planning unit is 100 Animal Unit Months, or 1.6% of the Bulkley Plan Area program. There is one grazing license and one grazing lease on clearcut, natural meadow, deciduous and mixed wood forest forage types. Horses are kept on private land and on Crown range land for a tourism business.

The eastern portion of this unit is within the traditional territory of the Wet'suwet'en (Haakasxw, Duubsisxw, Hagwilnegh, and Sakxum Higookx houses). The western portion falls within the Tsimshian's traditional territory.

The Copper Planning Unit accounts for 12.5% of the Bulkley Plan Area's operable landbase. Forty-one percent of the planning unit is operable and is made up of both sawlog, and pulp stands which occur in the coastal portion in the west. Logging is relatively recent in this planning unit and is done mainly under the Small Business Enterprise Program. Five percent of this unit has been logged to date.

The mineral potential in this Planning Unit is moderate in a wedge in the central portion, and increases to high both eastward and westward. Forty-two mineral occurrences in the planning unit attest to this area's significant mineral potential. Five occurrences have been past producers in the Duthie Mine and Silvern Lakes area. The Louise Lake and Serb Creek properties are known to have considerable reserves of large tonnage low grade copper and molybdenum. Coal occurrences with precious and base metal veins, have been found in the northcentral portion of the Planning Unit. Precious and base metal, vein-style mineralization predominates, although coal and copper-molybdenum bulk tonnage are noteworthy.

Planning Unit 12: Copper

Note: The following concerns apply as General Management Directions for the entire planning unit:

- Any development in this unit has to recognize sensitive soil and impact on all other resources.
- Water quality is important to lower watersheds.
- Encourage low-impact, outdoor recreation and tourism in a natural setting.
- Protect the high aesthetic values within this sub-unit.

Sub-unit 12-1: Silvern Lakes (SM1)

Objective: To encourage and promote the valuable backcountry recreation potential in this area. Because the area has high backcountry recreation and visual quality values, all management must be directed by a comprehensive management plan.

| <i>Management Category</i> | <i>Specific Direction</i> |
|---------------------------------------|---|
| Timber Management | <ul style="list-style-type: none">• Timber harvesting is not allowed. Removal of trees is permitted only where required for approved mining exploration and development purposes, including access, and for other activities consistent with objectives and other specific direction for management stated in this planning unit and sub unit. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">• Snowmobile activity will be assessed and controlled, if required, to prevent impacts on goat populations.• Encourage linked hiking trails to P.U. 10.• Promote backcountry use and recognize the future potential.• Permit commercial backcountry development subject to normal review and approval processes. |

Planning Unit 12: Copper

Sub-unit 12-2: Copper River (SM2)

Objective: To maintain the high fisheries values and important riparian ecosystem of this area as part of the Ecosystem Network, and to protect sensitive soils.

| <i>Management Category</i> | <i>Specific Direction</i> |
|-----------------------------------|--|
| Biodiversity | <ul style="list-style-type: none">• Management will maintain the values and red- and blue- listed plant communities associated with the important aquatic and riparian ecosystems within this unit.• Include the majority of this corridor within the Core ecosystem. |
| Access | <ul style="list-style-type: none">• Where there is no existing development:<ol style="list-style-type: none">1. Ensure permanent access is at least 1 km from the Copper River2. Deactivate roads within 1 km of the Copper River• Do not deactivate the existing main road. |
| Timber Management | <ul style="list-style-type: none">• Timber management activities will follow the prescriptions outlined for the Ecosystem Network.• Any area outside the Ecosystem Network will follow IRM objectives. |
| Water Quality | <ul style="list-style-type: none">• Maintain the pristine water qualities in the Copper River.• Any development will be designed to minimize impact on unstable terrain so that background water clarity is maintained.• In the east portion of this sub-unit, creeks between McDonell and Dennis Lake, and Passby Creek proper are regionally significant spawning areas and are a priority area for watershed assessments. |

Sub-unit 12-2 continued

| Management Category | Specific Direction |
|---------------------------------------|--|
| Fish and Wildlife Habitat | <ul style="list-style-type: none">• Maintain the exceptional steelhead fishing opportunity in an uncrowded, natural setting. |
| Visual Quality | <ul style="list-style-type: none">• Special attention will be paid to viewsapes in the background landscape as seen from the Copper River. |
| Range | <ul style="list-style-type: none">• Existing or future range use will not be expanded into the Copper corridor. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">• Maintain priority of angling opportunities associated with this river.• Maintain existing trails. |
| Future Planning Processes | <ul style="list-style-type: none">• Planning will include maintaining the significant fisheries values in the lower Copper River. |

Planning Unit 12: Copper

Sub-unit 12-3: Serb Creek Watershed (SM2)

Objective: To maintain the integrity of this sensitive ecosystem through fish, grizzly habitat, and water quality conditions attached to approval of activities and future plans for this area.

| Management Category | Specific Direction |
|----------------------------------|--|
| Biodiversity | <ul style="list-style-type: none">• Consider the watershed as a single ecosystem.• Maintain the integrity of this sensitive ecosystem.• Manage as a low risk area for fire management. |
| Access | <ul style="list-style-type: none">• Access options will be assessed and chosen based on least impact to the environment.• Management plans will consider the sensitivity of the watershed and the integrity of the core ecosystem.• No access will cross the Serb from any direction. |
| Timber Management | <ul style="list-style-type: none">• Development will be less intense than IRM zones. |
| Water Quality | <ul style="list-style-type: none">• Because of critical siltation concerns and high value downstream spawning habitat, protect fisheries in lower watershed. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none">• Identify and maintain grizzly bear habitat.• Downstream from McDonell Lake and at the confluence of the Serb is a regionally significant spawning area. This is a priority area for watershed assessments.• Maintain the water habitat that supports many species. |
| Visual Quality | <ul style="list-style-type: none">• Development will pay special attention to the wilderness panorama as seen from the Serb Creek. |

Sub-unit 12-3 continued

| Management Category | Specific Direction |
|---------------------------------------|---|
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">As this area has high potential for backcountry wilderness experiences, maintain in a primitive state by managing for low intensity, low impact recreation. |

Planning Unit 12: Copper

Sub-unit 12-4: Hankin Lake (IRM)

Objectives: To manage for a variety of values and activities in an integrated and compatible manner.

| Management Category | Specific Direction |
|---------------------------------------|--|
| Access | <ul style="list-style-type: none">Respect limitations listed for Sub-Unit 12-2. |
| Visual Quality | <ul style="list-style-type: none">Special attention will be paid to the scenic corridor associated with McDonnell Forest Service Road. |
| Fish and Wildlife Habitat | <ul style="list-style-type: none">In the east portion of this sub-unit, creeks between McDonnell and Dennis Lake, and Passby Creek proper are regionally significant spawning areas and are a priority area for watershed assessments. |
| Range | <ul style="list-style-type: none">Maintain wildlife as a priority over domestic livestock. |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">Respect existing commercial recreation and guide and outfitters leases. |

Planning Unit 12: Copper

Sub-unit 12-5: Mulwain Creek (SM2)

Objective: To maintain the water quality of this tributary and its viewscales.

| Management Category | Specific Direction |
|---------------------------------------|---|
| Biodiversity | <ul style="list-style-type: none">Maintain forest connectivity from the southeast (Sub-Unit 12-2) |
| Access | <ul style="list-style-type: none">Discourage a circle route linking to Kalum Forest District |
| Timber Management | <ul style="list-style-type: none">Consider large first pass logging entries with long periods of deactivation between passes. |
| Visual Quality | <ul style="list-style-type: none">Special attention will be paid to viewscales as seen from Seven Sisters and the Copper River corridor |
| Outdoor Recreation and Tourism | <ul style="list-style-type: none">Manage for low intensity, low impact recreational use. |
| Future Planning Processes | <ul style="list-style-type: none">The Board and agencies will consider the recommendations made by the Seven Sisters Planning Group for the headwaters of the Mulwain and Red Canyon creeks in future reviews of this plan. |

3.0 Socio-economic and Environmental Analysis

3.1 General Methodology

An assessment was made of the likely effects of the LRMP Management Direction on socio-economic and environmental conditions. These impacts were assessed using a standard “multiple accounts analysis” (MAA) format, which allows comparison of a recommended scenario with the “Base Case” or “Status Quo” i.e. the conditions that would likely result in the absence of an LRMP. MAA analysis allows a variety of perspectives to be assessed, and comparisons made using both quantitative and qualitative data. The categories or accounts of impact analyzed were: economic development (LRMP Plan Area and province); environment (a single account covering features of local and provincial significance); community or social (for Plan Area); First Nations concerns (for Plan Area); and government revenues (provincial).

3.2 Timber Supply Analysis

The MAA analysis was assisted by an informal Bulkley LRMP timber supply analysis, prepared in early 1996, which compared the status quo effect on future harvest levels to the range of possible effects of the LRMP recommendations on forest management. The status quo assumed current forest management practices, including Forest Practices Code requirements, with a gradual decline in harvest levels until Long Run Sustainable Yield (LRSY) is reached. In contrast, the LRMP scenario assumed the addition of the LRMP management direction to the status quo, with either a restrictive forest cover constraint of 70% of landscape corridors over 80 years (MS1) or a partial cover constraint (MS2).

For the first decade of analysis, the status quo harvest prediction showed no change to the present maximum allowable harvest level of 895,000 m³ /year. The harvest then declines by 13% per decade for the next five decades, and after 15 decades reaches a harvest level of 583,000 m³ /yr, which is 35% below the current AAC. In contrast, the LRMP causes declines of 14% to 15% per decade for the next five decades and after 15 decades reaches long run harvest levels of 526,000 m³ /yr (MS1) to 551,000 m³ /yr (MS2), which are approximately 37% to 41% lower, respectively than the current AAC.

3.3 Impact of Status Quo

The analysis suggests that the forest sector and other sectors currently dominating the Plan Area economy will decline in terms of employment levels. Without the imposition of an LRMP, the timber supply analysis suggests that at the end of 30 years, the decline in harvest levels from the current AAC of 895,000 m³/yr would result in a decline in total regional employment to 740 person-years from the current 978. Total provincial employment would decline to 1423 from the current 1880 person years. The regional income would drop to \$22.24 million/yr from \$29.37 million/yr, and provincial income would decline from its present \$53.17 million/yr to \$40.24 million/yr. Provincial government revenues would drop from the present \$31.18 million/yr to \$23.61 million/yr (in 1995 dollars).

There would be no impacts in the first decade of the status quo in the Plan Area communities. However, some short-term impacts on communities would be expected in year 10 due to the predicted regional employment reduction of 127 person-years. During the following five decades, continuing harvest level reductions would put downward pressure on population. The long term performance of the economy would determine the degree of in-migration to offset population declines stemming from harvest flow reductions. In the short term, measures of community wealth, such as average incomes, retail sales, property values and local government revenues could be negatively affected by the shrinking forestry base. Potentially severe problems could be encountered if a sawmill was faced with closure. While social and health indicators for the Bulkley Plan Area are generally positive, increased unemployment and forced worker adjustment resulting from a declining harvest may have a destabilizing effect on the community.

3.4 Comparison of Base Case versus LRMP Impact

Tables 1A and 1B show the impact of the LRMP relative to the status quo forest harvest scenario, for regional and provincial accounts.

3.4.1 Economic Development Account

In terms of forest industry impacts, there are no differences between the LRMP and the status quo harvest levels until the second decade, when harvest levels decline more steeply under the LRMP. In the second decade, it is projected that the LRMP would result in 6-13 fewer direct person years and 10-21 fewer total person years of regional employment annually, 20-37 fewer person years of provincial employment, regional forest employment income lowered by \$0.30-0.61 million/yr, and provincial employment income lowered by \$0.56-1.04 million/yr, in comparison to the Base Case. As shown in Table 1A, these differences increase in the third decade.

TABLE 1A. Summary of Incremental Impacts - LRMP Versus the Status Quo

| Accounts | Years 0 to 10 | Years 10 to 20 | | Years 20 to 30 | |
|--|---------------|-------------------|---------------|--------------------|---------------|
| Harvest Level m ³ /yr | 0 | -9 000 to -19 000 | | -16 000 to -32 000 | |
| Economic Development | Direct/Total | Direct | Total | Direct | Total |
| Forestry Employment (PYs/year) | | | | | |
| Regional | 0 | -6 to -13 | -10 to -21 | -11 to -22 | -18 to -35 |
| Provincial | 0 | -8 to -15 | -20 to -37 | -13 to -27 | -33 to -68 |
| Forestry Employment Income (\$1995 million/y) | | | | | |
| Regional | 0.00 | -.21 to -.43 | -.30 to -.61 | -.37 to -.73 | -.53 to -1.05 |
| Provincial | 0.00 | -.27 to -.51 | -.56 to -1.04 | -.44 to -.91 | -.93 to -1.92 |
| Government Revenues (\$1995 million/year) | 0.00 | -.32 to -.64 | | -.57 to -1.12 | |

TABLE 1B. Summary of Incremental Impacts – LRMP Versus the Status Quo

| | |
|--|--|
| Mining | <ul style="list-style-type: none"> The removal of Protected Zones from the mining land base would eliminate exploration where deposits are known to exist. In areas where future deposits are yet to be discovered, there is currently insufficient information to estimate quantifiable economic impacts. |
| Agriculture | <ul style="list-style-type: none"> No significant short-term impacts on current levels of production. Long-term impacts would depend upon growth within the industry where minimal constraints would be faced. |
| Commercial and Recreational Fisheries | <ul style="list-style-type: none"> Much of the high value fish habitat is not assured any additional level of protection at the LRMP planning level, but important areas have been recognized and would be accounted for in future development planning. Some of the recreational fishery and the vast majority of the commercial fishery impacts would occur outside Plan Area boundaries. |
| Tourism | <ul style="list-style-type: none"> A positive impact on tourism resource, but may not be sufficient to facilitate future tourism investment and employment. It is not known how the LRMP would affect these factors. |
| Trapping | <ul style="list-style-type: none"> Removal of harvesting land base could increase pressure on remaining land base which could be detrimental to trapline productivity. Old growth areas within SM zones would be generally better protected which would have a positive impact on old growth dependent furbearers. Long-term sustainability is in question. |

Table 1B continued

| | |
|---|--|
| Environmental Wildlife Habitat | <ul style="list-style-type: none"> • Positive impact on big game species populations as well as old conifer dependent species. • Higher stream and lake protection; improved landscape connectivity; improved biological diversity; increased buffers and protection to riparian areas; general increase of landbase with conservative emphasis. |
| Community | <ul style="list-style-type: none"> • Status quo harvest reductions are expected to put downward pressure on the region’s population; community wealth would decline; stress on community health and pressure on worker adjustment would increase. These impacts would be marginally greater under the LRMP. • Positive impacts on tourism, agriculture, mining and quality of life may offset some of the forestry-based losses under the LRMP in the long-term. |
| First Nations Communities | <ul style="list-style-type: none"> • Impacts would affect First Nations communities as many residents derive employment from the forest industry. |
| Hunting/Trapping Forest Management | <ul style="list-style-type: none"> • Improvements in protection of habitat would have a positive impact. • It is not known what the LRMP would mean in terms of First Nations’ interest and participation in forest management. |

The implementation of the LRMP is expected to have both short term and long term effects on mineral activity in the Plan Area, since one-third of the areas with high mineral potential lie in the Protected and Special Management zones of the LRMP. However, the overall impact on the industry will potentially be positive, as certainty of mineral tenure will be established in areas outside of Protected zones, and mineral exploration and development is permitted in Special Management areas.

The LRMP is not expected to have significant impact on existing agricultural operations. In general, there would be no significant negative short term impacts. Long term impact would depend on growth within the agricultural industry. As there is no significant reduction in rangeland capacity, this impact is expected to be minimal.

The LRMP may result in a marginal improvement in commercial and recreational fishery interests, compared to the status quo. This is because much of the high value fish habitat falls within the Integrated Resource Management zone and therefore is subject to current management approaches. However, some high value areas have been recognized in specific planning unit management directions and given high priority for watershed assessments, so improvement in management is expected.

Overall, the LRMP implementation is expected to have a more positive impact on the tourism resource compared to the status quo, although this may be insufficient on its own to stimulate future tourism investment and employment growth in tourism operations.

In the long term, the creation of Protected Areas may increase pressure on the remaining land base, thereby affecting long term trapline productivity. However, creation of Special Management zones in mature and old growth forests could improve habitat conditions for fur-bearers, thereby improving trapline harvests. As a result, the expected LRMP impact may be positive in the short term but questionable in the long term as timber harvesting in the Integrated Resource Management Zone reduces the amount of mature forest and raises questions of sustainability.

In terms of government revenues, there are no differences between the LRMP and the status quo harvest levels in the first decade. From the second to the sixth decade, government revenue is expected to decline more steeply under the LRMP, with a total of \$0.32-0.64 million/yr foregone in the second decade, and between \$0.57-1.12 million/yr foregone in the third.

3.4.2 Environment Account

BC Environment assessed the LRMP management direction on the basis of compliance with its objectives for sustainable wildlife populations and associated habitats in the Plan Area. In terms of feature species, such as grizzly bear, wolverine, caribou, mountain goat, moose, deer, fish stocks and older conifer-dependent species, the LRMP is preferred over the status quo.

The LRMP is also preferred when habitat indicators are measured. Key habitat indicators assessed by BC Environment include landscape connectivity, tree species composition, riparian habitat and conservation emphasis (Table 1B).

3.4.3 Community Account

Under the LRMP, there would be no impacts in the first decade as the harvest remains unchanged from the current level. The first impacts would be felt as the end of the first decade nears and the first reduction in harvest levels occur. In general, however, there would be only marginal impacts as the differences in harvest levels and employment levels between the LRMP and the status quo are small. For the second and third decades, forestry employment declines by 13% per decade for the status quo harvest flow, whereas the LRMP decline would range from 14%-15%. As a result, the impacts of the LRMP and the status quo on the community would be only marginally different.

3.4.4 First Nations Account

In general, the Bulkley LRMP has two key areas of impact concerning First Nations. The first is the change in harvest levels and the impact this has on employment and economic development. The second is the change in forest management practices and their impact on other interests and concerns. More specific impacts on First Nations interests have not been assessed due to lack of participation. The establishment of Protected and Special Management zones in the LRMP may help to maintain or protect First Nations values in such areas.



4.0 Implementation

Provincial government agencies with legislated responsibility for management of land and resources will implement the Bulkley LRMP through agency-specific management activities, more detailed plans, resource development permits and land dispositions. More detailed plans are expected to describe linkages with the Bulkley LRMP and include an explanation of how they are consistent with and contribute to implementation of the LRMP.

The management intent in the Bulkley LRMP will be reflected in resource management and development activities as soon as possible. Phased implementation of the LRMP will ensure a smooth transition from currently-approved operational plans to future operational plans.

The term of the LRMP is ten years, with a mid-term review in the fifth year. The resource management zones, objectives and strategies in the Bulkley LRMP may be amended in accordance with section 5.3.

4.1 Roles and Responsibilities

Interagency Management Committee

The Prince Rupert Interagency Management Committee (IAMC) will co-ordinate and ensure implementation of the Bulkley LRMP, will monitor compliance by agencies and resource users and will co-ordinate economic and social transition plans associated with the introduction of the LRMP. In response to requests from agencies, IAMC will interpret management objectives and strategies to assist with LRMP implementation. IAMC will also direct future amendments of the LRMP.

Government

Provincial government agencies will clarify and confirm management actions and agency responsibilities for implementation of the LRMP. Management activities will be consistent with legislative mandates and will be incorporated into existing or new programs. Agencies will establish a schedule for review and revision of current detailed plans. Agencies will consider existing information from the technical working groups and implement those aspects of the plan to reflect community values as presented by the Board. Agencies will ensure that the LRMP is available to licensed resource users, resource agency staff, stakeholders, First Nations and interested public and will inform the public about implementation of the plan on a regular basis.

Community Resources Board

The community resources board will be asked to continue to provide community liaison and inform the public about implementation of and changes to the LRMP. The board is expected to be an active participant in the monitoring and amendment phases of the LRMP and is expected to participate in designing the annual monitoring report.

Public

The nature and level of public involvement in more detailed planning will be determined in response to emerging issues, stakeholder interests and agency resources. Interest-based, participatory processes are encouraged in principle. The public is expected to continue its role as an important contributor to the effective implementation of the LRMP in partnership with government agencies and First Nations.

First Nations

Government is committed to working with First Nations on a government-to-government basis. The LRMP is without prejudice to aboriginal rights and treaty negotiations. First Nations are encouraged to participate in implementation and ongoing monitoring and review of the plan.

Local Governments

Local governments will be kept informed about the implementation of the Bulkley LRMP and are encouraged to participate in implementation and ongoing monitoring and review of the plan.

Local governments are encouraged to inform the IAMC and agencies of settlement planning initiatives that may have implications for implementing the adjacent LRMP direction.

4.2 Legal Designations

The following legal designations will occur as part of LRMP implementation:

a) Higher Level Plans under the Forest Practices Code

The *Forest Practices Code of B.C. Act* establishes a system of forest planning where higher level plans guide operational plans which guide forest practices including timber harvesting and road construction. Operational plans, such as forest development plans and range use plans, must be consistent with higher level plans. Operational plans describe forest resources and the location, timing, and type of forest practices to manage, use and conserve these resources.

The Code provides for landscape planning to guide forest development and management within landscape units which are based on physiographic features and generally correspond to watersheds. The ecosystems networks (i.e. core ecosystems and landscape corridors) and enhanced timber development areas in the Bulkley LRMP provides a basis for preparation of landscape unit plans.

The district manager for the Bulkley Forest District intends to establish the objectives for landscape units as higher level plans. These objectives will be consistent with direction in this LRMP. Before establishing an objective for a landscape unit respecting a forest resource other than a recreation resource, the district manager must obtain the approval of a designated environment official from the Ministry of Environment, Lands and Parks.

The need for joint approval by the Ministries of Environment, Lands and Parks and Forests of selected forest development plans will be addressed in Landscape Unit Plans.

b) Protected Areas

Protected areas within the Bulkley Plan Area will be legally designated under the *Park Act* or the *Ecological Reserve Act*. The Parks Division of the Ministry of Environment, Lands and Parks is the agency with responsibilities for management of parks and ecological reserves. B.C. Parks in cooperation with other agencies will implement the Bulkley LRMP within protected areas.

c) Forest Land Reserve

The forest land reserve is intended to protect and secure the commercial forest land base across the province. Crown forest lands and lands classified for taxation purposes as private managed forest lands are included in the reserve. Protected areas, agricultural lands and private lands other than private managed forest lands are not included in the reserve. Lands cannot be removed from the reserve without a review process. The crown forest land in the Bulkley Plan Area will be declared under the *Forest Land Reserve Act* after protected areas are legally designated.

5.0 Monitoring and Amendment

In addition to its role in plan implementation and in consultation with the Board, the Prince Rupert Interagency Management Committee (IAMC) will develop specific “indicators” of implementation success that will be used to monitor progress. The IAMC will also prepare an annual monitoring report.

More detailed planning, through mapping, research or public involvement, may recommend updates to the Land and Resource Management Plan. These proposed updates will be identified within the monitoring report. The Prince Rupert Interagency Management Committee will review and approve minor plan updates, but major changes will need to be approved by the Ministers.

The Community Resources Board will be an active participant in the monitoring and amendment phases of the LRMP. The Board agrees that the effectiveness of the LRMP will hinge on monitoring.

Throughout the LRMP, there are references to recommended future processes or decisions that require some level of public input. Given their familiarity with the LRMP and their diverse background and makeup, the Board should be the identified group to provide meaningful input to future decisions, as well as assist agencies with designing specific processes and working with them as partners to obtain required public input. This role would be dependent on the Board having continued public support, the completeness of the makeup of the Board based on their original Terms of Reference, and the specific assistance required by each agency.

5.1 Monitoring Program Responsibility

Those ministries responsible for implementing the LRMP objectives will undertake the monitoring program as prescribed by the IAMC. They will assist the Board in keeping informed about other land and resource planning processes in B.C. This will help them to improve upon future LRMP processes in the Bulkley Plan Area.

Current monitoring will continue, but it will be incorporated into the larger Board and agencies monitoring framework. The Board may recommend plan amendments to the Prince Rupert Interagency Management Committee.

5.2 Annual Report

By March 31, 1999 and annually thereafter, the IAMC will prepare an annual LRMP Monitoring Report outlining the status of the implementation of agency objectives. The report will be sent to the Board and the Board will coordinate the presentation of this report at an annual public meeting where recommendations regarding implementation may be made.

The monitoring report will include actions taken to conform with plan direction, status of consistency with plan requirements, instances of inconsistencies, and actions to be taken to ensure consistence.

5.3 Updates and Amendments

5.3.1 Updates

Plan updates are any minor changes to the plan to be approved by the IAMC. After IAMC approval, minor changes will be documented and circulated to the public, CRB, interest groups and tenure holders.

Examples of minor changes include:

- revision of wording;
- revised priorities for more detailed plans and watershed assessments;
- small changes to boundaries of Resource Management Zones,
- refinements to objectives and strategies suggested by more detailed plans; and,
- changes required to make the plan conform with new laws, regulations, or policies.

5.3.2 Scheduled Amendments

If by the 8th year of the plan, there have been a sufficient number of significant amendments, and new issues have emerged in the Plan Area that are not adequately addressed in the Plan, then IAMC may choose to redraft the Plan. The IAMC will establish the Terms of Reference for the amendment process, consistent with existing legislation and regulations. The public will be involved in the amendment process.

5.3.3 Unscheduled Amendments

An unscheduled amendment is a significant change to the plan. This includes major revisions to objectives or management statements set out in the plan, or changes to Resource Management Zone boundaries of 500 hectares or more, not including SM1 zones or Protected Areas.

The public or agencies may identify issues that require an unscheduled amendment. These will be identified in the Annual Report or at the annual public meeting. When issues arise that require a major amendment, the

IAMC will establish the schedule and Terms of Reference for the amendment process. The public and the Board will be involved in the plan amendment process.

5.3.4 Amendments to Protected and SM1 Zones

Amendments to the plan will not include boundary changes to Protected Areas or Special Management 1 zones. Special Management 1 zones will not be upgraded to Protected Areas.

5.3.5 Interpretation and Appeal

From time to time, the public or agencies may become concerned about how the plan is being interpreted or about specific land and resource practices that result from it. In all instances of concern, the issues will be dealt with in a co-operative manner.

Where the public or agencies raise concerns with specific resource management practices that are occurring in the LRMP, they should raise the issue with the Board, and directly with the affected resource agency which is mandated to manage those specific values. Where there is an existing review or appeal process, the concern will be dealt with through that process. For example, concerns over forest road construction will be dealt with under the Forest Practices Code.

The objectives and strategies in this LRMP are intended to be at a broad or strategic level wherever possible. Where a concern is raised over the interpretation of land use objectives and strategies, the concern should be addressed directly to the affected agency or agencies. The responsible manager will respond to the concern in writing, consulting with the LRMP chair and Interagency Planning Team where necessary. If the matter is not satisfactorily resolved, the concern will be forwarded to the Interagency Management Committee for resolution. The Interagency Management Committee will determine if the decision is consistent with the intent of the approved plan. If it is, no further action will be taken. If it is not, the agency responsible will be directed to revise the decision to be consistent with the intent of the plan.



APPENDICES

Appendix 1. Glossary Of Terms

Agricultural Land Reserve (ALR): a provincial land-use zoning initiative established in 1974 to protect the province's agricultural land base.

Anadromous Fish: fish species born in freshwater which spend much of their lives at sea, and return to freshwater to reproduce.

Allowable Annual Cut (AAC): the volume of timber approved by the chief forester to be harvested annually.

Biodiversity: the diversity of plants, animals, and other living organisms in all their forms and levels of organization, including genes, species, ecosystems, and the evolutionary and functional processes that link them.

Biogeoclimatic Zone: a geographic unit with a broadly homogenous macro-climate.

Blue-listed Species: species deemed by the Ministry of Environment, Lands and Parks to be vulnerable or sensitive.

Community Watershed: a watershed that has a drainage area no greater than approximately 500 km², and that is licensed for community water use by the Water Management Branch of the Ministry of Environment, Lands and Parks. They include municipal and other waterworks and water user communities, as defined in the Water Act, have six or more licensed water users (registered with the Water Management Branch) extracting water from the same source. The Ministry of Forests District Manager, in agreement with a designated BC Environment official, may identify other watersheds as community watersheds.

Community Watershed Guidelines: provincial policy for regulating resource uses in community watersheds for the purpose of maintaining water quality, water quantity, and timing of flow.

Critical Wildlife Habitat: part or all of a specific place occupied by a wildlife species or a population of such species and recognized as being essential for the maintenance of the population.

Coordinated Access Management Plan (CAMP): a strategy, prepared through the Coordinated involvement of government officials, resource users, recreationists, and other interested publics, designed to manage access of all users into a specified area. It is a tool which local forest managers can use to resolve access related conflicts.

Ecosection: an ecological unit based on climate and physiography.

Ecosystem: a functional unit consisting of all the living organisms (plants, animals, and microbes) in a given area, and all the non-living physical and chemical factors of their environment, linked together through nutrient cycling and energy flow. An ecosystem can be of any size, a log, pond, field, forest, or the earth's biosphere, but it always functions as a whole unit. Ecosystems are commonly described according to the major type of vegetation for example, forest ecosystem, old-growth ecosystem, or range ecosystem.

Forest Development Plan: an operational plan guided by the principles of integrated resource management (the consideration of timber and non-timber resource values), which details the logistics of timber harvesting usually over a period of five years. Methods, schedules, and responsibilities for accessing, harvesting, renewing, and protecting forest resources are set out to enable site-specific operations to proceed.

Forest Practices Code (FPC): legislation (including the *Forest Practices Code of British Columbia Act* and associated regulations), standards, and guidebooks that govern forest practices in British Columbia.

Forest Renewal BC (FRBC): provincial government agency established under legislation to manage and direct forest renewal investments under the Forest Renewal Plan.

Interagency Management Committee (IAMC): administrative body of senior resource managers struck at the regional level to coordinate the development and implementation of LRMPs including LRMP boundaries, project priorities, and funding. The IAMC appoints an interagency planning team, approves the terms of reference for the LRMP, reviews and makes recommendations on all planning products, and plays a role in dispute resolution. The role of the interagency management committee is in addition to its original function of co-ordinating the Protected Areas Strategy.

Interagency Planning Team (IPT): administrative body composed of potentially locally based provincial and federal resource managers, local government staff, and aboriginal representatives, struck to initiate each Land and Resource Management Plan, to provide technical support throughout the process, to establish working groups when necessary, and to determine the degree of public participation in the planning process.

Land and Resource Management Plan (LRMP): a strategic, multi-agency, integrated resource plan at the sub-regional level. It is based on the principles of enhanced public involvement, consideration of all resource values, consensus-based decision making, and resource sustainability.

Landscape: a watershed or series of similar and interacting watersheds, usually between 1,000 and 100,000 hectares.

Landscape Level Planning: planning undertaken to coordinate and integrate resource conservation and development activities, and to provide for the maintenance of biodiversity, in landscape units.

Landscape Units: geographic units delineated on the basis of physiographic and/or ecological features, such as watersheds. They serve as a focal point for the coordinated management of a broad range of resource values, and are central to the management of landscape-level biodiversity. Design of ecosystem networks, visual resource management, and access management are examples of common activities of landscape-level planning.

Local Resource Use Plan (LRUP): a strategic direction for a portion of a timber supply area that provides management guidelines for integrating resource use in the area.

Long Run Sustainable Yield (LRSY): a measure of the long run timber productivity, considering harvesting and re-growth, in a specified area.

More Detailed Plan: management strategies including Local Resource Use Plans, Landscape Unit Plans, and Resource Management Zone Plans.

Multiple Accounts Analysis (MAA): a technique used to measure and assess all of the costs and trade-offs, including economic, environmental, and social, involved in a number of scenarios considered in a planning and decision-making exercise.

Official Community Plan (OCP): general statement of the broad objectives and policies of the local government respecting the form and character of existing and proposed land use and servicing requirements in the area covered by the plan.

Pre-Harvest Silviculture Prescription (PHSP): a site-specific plan describing the nature and extent of any timber harvesting and silviculture activities that are designed to achieve the required management objectives, including a free-growing stand to specified standards.

Protected Areas: areas such as provincial parks, federal parks, wilderness areas, ecological reserves, and recreation areas that have protected designations according to federal or provincial statutes. Protected areas are land and freshwater or marine areas set aside to protect the province's diverse natural and cultural heritage.

Red-listed Species: candidates for legal designation by the Ministry of Environment, Lands and Parks as endangered or threatened.

Referral: the process by which applications for permits, licenses, leases, etc., made to one government agency by an individual or industry are given to another agency for review and comment.

Resource management zones (RMZ): a tool for implementing government's social, economic, and environmental objectives for land and resource use within the province. RMZs identify provincially significant resource values and provide overall direction for their management. The management direction must be compatible with the enhancement of the resource identified in the zone (e.g. low intensity development to protect caribou habitat). Resource management zones are identified as a higher level plan in the *BC Forest Practices Code Act*.

Riparian Area: the land adjacent to the normal high water line in a stream, river, or lake extending to the portion of land that is influenced by the presence of the adjacent ponded or channelled water. Riparian areas typically exemplify a rich and diverse vegetative mosaic reflecting the influence of available surface water.

Sensitive Areas: established to protect regionally significant or unique resource features from an environmental or social perspective at a local scale. They can be identified as part of a landscape planning process or may be established independently. Where sensitive areas occur within a resource management zone, objectives for the area must be consistent with the resource management zone objectives. Sensitive areas are formally established under the *BC Forest Practices Act* as a higher level plan. Sensitive areas designation will be used to conserve special resource values that may be degraded unless resource development proceeds with special care. They will be used to conserve site-specific features such as particular views or critical wildlife habitat.

Seral Stages: the various communities that together make up a sere, a characteristic sequence of biotic communities that successively occupy and replace each other in a particular environment over time following disturbance of the original community or the formation of a new, previously uncolonized environment.

Stand: a community of trees sufficiently uniform in species composition, structure, age, arrangement, and condition and growing on a site of sufficiently uniform quality to be a distinguishable unit.

Stumpage (assessment): the price paid to the provincial government for timber harvested on Crown land.

Thermal Cover: cover used by animals to lessen the effects of weather.

Timber Supply Area: an area defined by an established pattern of wood flow from management units to the primary timbering industries.

Transitional Habitat (for caribou): caribou habitat used in early winter, or early spring either for foraging, calving, or travel. Transitional habitat is generally located at lower elevations, often in the Interior Cedar Hemlock zone.

Uneven-aged Silvicultural System: a silvicultural system designed to create or maintain and generate an uneven-aged stand structure. Single-tree and group selection are uneven-aged silviculture systems.

Visual Quality Objective (VQO): a resource management objective that reflects the desired level of visual quality based on the physical characteristics and social concerns of an area. The term refers to the degree of acceptable human alteration to the characteristic landscape.

Visually Sensitive Areas: viewsheds that are visible from communities, public use areas, and travel corridors, including roadways and waterways, and any other viewpoint so identified through referral or planning processes.

Watershed: the natural upstream land drainage area above any point of reference on a stream.

Watershed Assessment: evaluates the present state of watersheds and the cumulative impact of proposed development on peak flows, suspended sediment, bedload, and stream channel stability.

Wildlife Trees: dead, decaying, deteriorating, or other designated trees that provide present or future habitat for the maintenance or enhancement of wildlife.

Woodlot Licence: similar to a tree farm licence but on a small scale. It allows for small-scale forestry to be practiced in a described area (Crown and private land) on a sustained or perpetual yield basis.

Appendix 2. List of Participants

Bulkley Valley Community Resources Board

Shelley Becker, Beckers Alpine Cedar Products
Wes Giesbrecht, Teacher / Log House Builder
Mary Ellen Graham
Sybille Haeussler, Forest Ecologist
Daryl Hanson, Geologist
Gary Hanson, Forester/Woodlot owner
Dave Hatler, Biologist, Hunter, Trapper
Dave Hooper, Guide/ Outfitter
Harry Kruisselbrink, Retired
Tim Toman, Sheep farmer/retired dentist
Marion Knoerr, Beef producer
Harold Reedy, Forest technology instructor

Bulkley Interagency Planning Team

Dave Riendeau, Ministry of Agriculture, Fisheries and Food
Len Vanderstar, BC Environment
Mary Lou Malott, Ministry of Employment and Investment, Mineral Resources Division
Barry Smith, IPT Chair
Jane Lloyd-Smith, Ministry of Forests, Bulkley/Cassiar Forest District
Rick Braam, Ministry of Forests, Bulkley/Cassiar Forest District
Andrew Wheatley, Ministry of Forests, Prince Rupert Forest Region
Bob Purdon, BC Lands
Ken Zimmer, BC Parks
Tracy Olson, Ministry of Small Business, Tourism and Culture

Supporting agency representatives:

Pierre Lemieux, Department of Fisheries and Oceans
Mark Andison, Regional District of Bulkley Nechako
Francesca Wheler, Ministry of Small Business, Tourism and Culture

Appendix 3. Community Resources Board Value Perspectives *

The following list of forest land perspectives is intended to guide the Nominees, assisted by Facilitators, in the composition of the Board:

1. Attaches particular value to timber production above other uses.
2. Attaches particular value to timber production by small operators.
3. Attaches particular value to the preservation of natural ecosystems.
4. Attaches particular value to the preservation of large tracts of wilderness, with limited access.
5. Favors management of forestland resources to maintain habitat of hunted animal species and aesthetic quality of hunting environment.
6. Favors management of forestland resources to maintain populations of animals subject to trapping.
7. Favors management of forestland resources so as to maintain quality of fish habitat and aesthetic quality of fishing environment.
8. Attaches particular significance to a subsistence lifestyle and spiritual values.
9. Favors maintaining features of forestland resources which attract tourists.
10. Favors maintaining water quality for agriculture as well as access to, and quality of, grazing on forestland.
11. Favors management to enhance recreation access and recreation facilities with minimum activity restrictions.
12. Desires to preserve access to forestlands for prospecting and mineral development.
13. Dependent on commercial uses of forestland and perceives such uses as essential to secondary commercial activity.
14. Supports application of advanced technology to management and uses of resources in order to improve on nature.
15. Favors preservation of aesthetic features of forestlands including landscapes and localized natural attributes.
16. Favors preservation of historical and cultural features of forestlands.

*** Bulkley Valley Community Resources Board Agreement, October 1, 1991.**

Appendix 4. Community Resources Board Terms of Reference

A. Preamble

The BULKLEY VALLEY COMMUNITY RESOURCES BOARD was established as a result of the cooperative efforts of the District Office of the Ministry of Forests and members of the community residing in the Bulkley Forest District.

1. The Board will develop its own Terms of Reference and forward them to the District Manager of the Ministry of Forests for endorsement.
2. The spirit and intent of the BULKLEY VALLEY COMMUNITY RESOURCES BOARD AGREEMENT of October 11, 1991 (“The Hilltop Agreement” Appendix A) will be followed in the development of the Terms of Reference.
3. The responsibility of the Board is to make value decisions with the aid of technical information supplied by the Interagency Planning Team (IPT) and others.

B. Purpose of the Board

1. The purpose of the Board is to cooperate with the Ministry of Forests and the Interagency Planning Team in developing a FOREST LAND MANAGEMENT PLAN (the Plan) in accordance with the planning process detailed in Part 3; to monitor and evaluate the implementation of the Plan as approved by the Ministry of Forests; to review any proposed changes to the Plan and to cooperatively develop a new Plan when the current Plan expires.
2. “Forest Land Management Plan”:
 - a) means a comprehensive, integrated plan that will establish a land, water and resource use strategy, within the Ministry of Forests mandate, for the Bulkley Forest District and which will form the basis for setting the Annual Allowable Cut in the Bulkley Forest District and will provide the most benefits possible to residents of the district and province; and,
 - b) includes all of the elements listed in Section 4(c) of the *Ministry of Forests Act*, i.e., “the production of timber and forage, the harvesting of timber, the grazing of livestock and the realization of fisheries, wildlife, water, outdoor recreation and other natural resources.”
3. During the development of the Plan, the Board will strive to ensure that all resource activities will be ecologically responsible to guarantee long-term resource sustainability and to enable communities to maintain their quality of life without compromising the needs of future generations. Implicit in the concept of long-term sustainability is the maintenance of the biological diversity of the ecological system.

C. Accountability Of The Board

1. The Board is accountable to the people of the Bulkley Forest District.
2. In fulfilling this obligation, the Board will consult with the community throughout the development of the Plan. This will include consultation with the Native community for their input into the Plan. The consultations will take the form of public meetings, special meetings, and receiving written advice, suggestions, or information from the public. In addition, all meetings of the Board shall be open to the public, except when, because of the nature of the discussions, the Board requires meetings in camera.
3. All information used by the Board and all information employed by the Provincial agencies in making technical analyses will be available to the general public.

D. Scope and Responsibility Of The Board

1. The Board will provide the Ministry of Forests, through the Bulkley Forest District's District Manager, with a reliable reflection of the value preferences of the Bulkley Forest District community with respect to forest land planning for the district. The Board will ensure that it follows an open process with full public participation in accordance with the planning process detailed in Part 3.
2. The Board is the vehicle for representing the value perspectives of the community in the development of the plan.
3. The Board will participate directly in all steps of the planning process so that the plans produced faithfully reflect the views of the Board. At key stages in the planning process, the Board will provide information to the public and consult with the public through appropriate mechanisms.
4. Each written draft of the Forest Land Management Plan shall be reviewed by the Board until it is the consensus of the Board that a satisfactory draft is achieved.
5. The IPT will ensure that the draft is technically correct and that the language meets legislative requirements.
6. The draft will then be referred back to the Board for final review and consensus approval. Upon approval, each member of the Board will sign the finalized copy and it will be given to the District Manager of the Bulkley Forest District, Ministry of Forests.
7. The Board will offer a single, final Forest Land Management Plan which encompasses both agreement and any disagreement.

8. The Board will monitor and evaluate the Plan as it is implemented and will maintain liaison with the Ministry of Forests.
9. When the current plan expires, the Board will cooperate with the Ministry of Forests and the Interagency Planning Team in developing a new plan.

E. Management Principles

All activities and recommendations made by the Board will accord with the following management principles:

1. All resource activities should be ecologically responsible and will be managed to ensure biological diversity at the landscape unit level. The landscape unit is defined, for planning purposes, as a land parcel such as watershed, of between 10,000 and 20,000 hectares.
2. Subject to #1 above, economic, cultural, social and general well-being of people and communities should be the aim of managing our natural resources.
3. Development should be sustainable enabling people of the community to maintain their quality of life without compromising the needs of future generations.
4. Land uses on Provincial Forest Lands in the Bulkley Forest District should be balanced so as to provide the most long-term benefits possible to the people of the district while recognizing the needs of the people of the province as a whole. The Ministry of Forests recognizes the freedom of the Board to make recommendations to other agencies concerning land outside Provincial Forests.
5. The function of the resources expert is to provide reliable estimates of the physical, biological and economic consequences of alternative activities, including assessment of the uncertainties in such estimates. Whether the consequences are desirable or undesirable is a value judgement. In a democratic society, the value judgement of the expert merits no greater weight than the judgement of the lay person.
6. Through the cooperation of the Board, the Ministry of Forests and other provincial agencies, the preparation of the Plan will benefit from the analyses provided by provincial agency personnel and others and the reliable application of community values in the design of the plan.

F. Planning Steps To Be Followed By The Board

1. The Board will cooperate with the Ministry of Forests in setting out the planning steps to be followed. Refer to Part 3 for a detailed description.
2. The Board recognizes that some flexibility is required in working out the planning steps and that some amendments to them may be necessary from time-to-time.

G. The Resource Value Perspectives

The BULKLEY VALLEY COMMUNITY RESOURCES BOARD AGREEMENT of October 11, 1991, embodies the concept of resource value perspectives on forest land. The list of these perspectives is intended to encompass the full range of community perspectives.

Accordingly, the Board will ensure that such perspectives continue to be suitably represented on the Board.

H. The Number Of Board Members

1. The number of Board members will remain at twelve (12).
2. If it is necessary to replace Board members, the chosen means will be consistent with maintaining the full range of value perspectives.

I. Decision Making

The Board will strive to arrive at decisions by consensus.

J. Establishment Of Working Groups

1. The Board may establish sub-committees and Working Groups as it deems necessary. Membership is not restricted to Board members.
2. In addition, Board participation on IPT working groups is encouraged.
3. The Board and the IPT will cooperate to minimize duplication between Board and IPT working groups.

K. Responsibility Of The Ministry Of Forests

1. The Ministry of Forests has a mandate for integrated resource management. The responsibilities of the Ministry of Forests in developing the Plan are:
 - a. to have suitable staff attend public meetings called by the Board.

- b. to provide meeting facilities and logistical support including secretarial and drafting facilities, public documents, maps, air photos, plans or other materials required by the Board to conduct its business.
 - c. to provide a ministry liaison officer who shall be the principal contact person for the Board's immediate working relationship with the ministry.
 - d. to ensure sufficient funding to publicize the work of the Board, and to conduct necessary studies and analyses in accordance with the planning process detailed in Part 3.
 - e. to provide, through the Interagency Planning Team and others, the information necessary for the Board to make recommendations at all levels of planning, implementation and monitoring.
 - f. to provide a direct written response to all recommendations received from the Board, and if the recommendations cannot be followed reasons for non-acceptance will be given.
2. The district office of the Ministry of Forests will transmit the recommendations of the Board (without alteration) to the Regional Manager of the Ministry of Forests. The Ministry of Forests recognizes the freedom of the Board to send copies of its working documents to anyone it chooses, including the Minister of Forests.

L. Role Of The Interagency Planning Team

- 1. The Interagency Planning Team will work cooperatively with the Board in providing technical data to be used in the preparation of the Plan.
- 2. The chairperson of the IPT, or his designate, may attend Board meetings and provide such ad hoc advice at such meetings as the Board requests.
- 3. As required, and in consultation with the chairperson of the IPT, members of the Planning Team may make presentations to the Board for information and clarification.
- 4. The IPT's work will be supported through provisions of Ministry of Forests staff time and such staff time from other government agencies as agreed to by the District Manager and other agencies respectively.

M. Monitoring And Evaluating The Plan

- 1. The Board, in consultation with the district manager of the Ministry of Forests and the chairperson of the IPT, will devise a method for monitoring and evaluating the Plan.

2. At a minimum, annually updated five-year development and operating plans will be presented to the Board. An annual report respecting resource management performance will also be presented to the Board. Details of the annual report will be included in the Plan.

N. Other Planning Processes

1. The Board recognizes other planning processes such as “Local Resource Use Plans” and “The Protected Areas Strategy” and will cooperate with the relevant planning bodies to ensure consistency and compatibility among plans. Draft plan options for district LRUPs should be presented to the Board at early planning stages and before public review so the Board can evaluate how consistent these plans are with the Forest Land Management Plan. If no compatible option can be found, the Board will recommend changes to the relevant planning groups.
2. The Board recognizes that during the plan preparation process the Ministry of Forests will, from time-to-time, in conducting its day-to-day business, engage in public consultation. The Ministry of Forests will notify the Board of any such intended consultative activities.

O. Changes To The Forest Land Management Plan

Special circumstances (for example: the changes resulting from forest fires, massive insect infestations, large-scale blowdown, drastic changes in wildlife habitat) may arise that require the Plan to be altered. The IPT will substantiate these circumstances and present the Board with the relevant information. The Board, in cooperation with the IPT, will then recommend changes to the Plan. No action contravening the Plan shall be taken until the Plan has been amended. If urgency is indicated, the Board will respond as quickly as possible.

P. Changes To The Terms Of Reference

1. It is recognized that major policy and legislative issues are presently under review by the Government of the Province of British Columbia and that under new policy or legislation, changes may be required to these Terms of Reference.
2. If it is determined that the Terms of Reference can be improved by amendment, addition or deletion, the Board has the power to make such changes provided they are in keeping with the spirit and intent of the BULKLEY VALLEY COMMUNITY RESOURCES BOARD AGREEMENT of October 11, 1991, and forward them to the district manager of the Ministry of Forests for endorsement.

Q. Legislative Responsibility

No part of these Terms of Reference relieves any government ministry or agency of any legislative responsibility.

Appendix 5. LRMP Process Communications with First Nations

Introduction

Aboriginal rights exist in law and are recognized and affirmed under the *Constitution Act of 1982*. The 1993 Court of Appeal decision in *Delgamuukw* clarified that blanket extinguishment of aboriginal rights did not occur prior to 1871 and therefore, these rights continue to exist in British Columbia today. As such, they cannot be unjustifiably infringed by activities of the Crown (i.e. through the sale of Crown land, issuance of tenures, leases, licences and permits).

In 1995, the Ministries of Aboriginal Affairs and Attorney General developed the *Crown Land Activities and Aboriginal Rights Policy Framework* for application across government. It outlines the importance of avoiding unjustifiable infringement of aboriginal rights and, if infringement must occur, outlines legal tests whereby infringement may occur.

In assessing possible infringement of these rights, the government will seek to consult with aboriginal groups. The provincial government is working toward settlement of land claims with First Nations in British Columbia. In developing the Bulkley LRMP, the government reaffirms that all decisions contained in the Bulkley LRMP will form the basis of the provincial government's position during treaty negotiations.

An *Accord of Recognition and Respect* signed by Wet'suwet'en, Gitksan and provincial government representatives on June 13, 1994 has established government-to-government relations in the Bulkley Plan Area. The Accord provides for an adjournment of the *Delgamuukw* appeal in the Supreme Court of Canada to allow negotiations to proceed between the parties. In keeping with the Accord, the IPT has been communicating with the Gitksan and Wet'suwet'en regarding LRMP planning. The Accord with the Gitksan has since collapsed.

At the outset of the LRMP process three First Nations had expressed claims to lands within the Bulkley Forest District. They included the Gitksan, Wet'suwet'en and Nat'oot'en First Nations. A Tsimshian claim to a small portion in the northwest corner of the Bulkley LRMP area is fairly new information (1996). When requested to participate in the LRMP in the spring of 1991, they indicated a limited potential to become involved. Since then, the Interagency Planning Team (IPT) has continued its efforts to include First Nations in the planning process.

Permanent communities in the LRMP area include Moricetown where the Wet'suwet'en Treaty Office is located, and Fort Babine (Nat'oot'en) represented by the band office in Burns Lake. The population of Moricetown was estimated at 1,357 in 1991, but according to treaty estimates, has increased in recent years. The population of Fort Babine is approximately 135 people.

First Nations and Treaty Negotiations (updated to September 27, 1996)

Gitksan-Wet'suwet'en

One of British Columbia's largest land claims, approximately 5.8 million hectares around the Bulkley and Kispiox Valleys, is part of the *Delgamuukw* action wherein the Gitksan and Wet'suwet'en people are seeking control over their traditional territories. A 1991 ruling stated that aboriginal rights over the land had been extinguished in the nineteenth century. In 1993, the BC Court of Appeal overturned this decision, stating that aboriginal rights had not been

extinguished. However, the Appeal Court rejected the claim to outright ownership of traditional territories. In June 1994, the Gitxsan and Wet'suwet'en decided to appeal this decision to the Supreme Court of Canada.

On June 13, 1994, the Wet'suwet'en, Gitxsan and British Columbia signed an Accord of Recognition and Respect. The Accord provided for an adjournment of the Delgamuukw appeal in the Supreme Court of Canada to allow negotiations to proceed between the parties. After this, the Gitxsan and Wet'suwet'en split into two Nations.

Wet'suwet'en

The Wet'suwet'en have a population of 2,086 and are made up of three bands. Negotiations which proceeded after the adjournment of the Delgamuukw appeal led to three documents being signed on March 8, 1996:

- Omnibus Agreement
- Referral Protocol
- Operational Planning Protocol

These agreements describe how the Wet'suwet'en will participate in provincial land and resource referral and operational planning processes prior to a treaty. During these discussions, the Wet'suwet'en again declared that they are not currently prepared to participate in LRMPs. All agencies have agreed to alternative means of consultation, outlined in the protocols.

The Framework Agreement was signed on July 13, 1996. They have commenced work on an Environmental Assessment; Land Selection and Access. On September 12, 1996, the federal government advised the Wet'suwet'en that they suspended negotiations while Delgamuukw litigation proceeds.

Gitxsan

The Gitxsan have a population of 4,553 and are made up of five bands. They signed a Framework Agreement on July 13, 1995. They are seeking a co-jurisdictional model that is irreconcilable with provincial mandates. The decision around suspension was conveyed to the Gitxsan on February 1, 1996. The BC Treaty Commission agreed to serve as fact finder to dispute between BC and Gitxsan. The report is now complete and the parties are to meet to discuss the next steps. The case on appeal in Delgamuukw litigation was filed on September 16, 1996 in the Supreme Court of Canada.

Lake Babine Nation (Nat'oot'en)

The Nat'oot'en have a population of 1,749. They completed their readiness documents on April 17, 1996.

Tsimshian

The Tsimshian have a population of 10,000 and are made up of seven bands. Their overlap with the Nisga'a claim has become an important issue. The Framework Agreement is now substantively complete and is ready for the Chief Negotiators to sign.

Summary of First Nations Consultations

The following summarizes the consultations with the Gitksan, Wet'suwet'en and Nat'oot'en First Nations regarding the Bulkley LRMP process. A more detailed listing of specific communications is attached.

In September 1991, the Interagency Planning Team (IPT) invited the First Nations to attend a workshop to develop a public involvement process for strategic planning. Representatives from the Gitksan and Wet'suwet'en Nations were nominated as potential Representatives from the Gitksan and Wet'suwet'en Nations were nominated as potential Community Resources Board (CRB) was selected.

Throughout 1992 and 1993, the Board developed a Terms of Reference and gathered technical information for the LRMP. The Board made numerous attempts to communicate with First Nations to gain their perspectives, but was unsuccessful. The IPT took on the responsibility of communicating with the First Nations and keeping them informed. Regular updates were sent as the LRMP process progressed, and their participation was requested at each stage.

In 1995, the four scenarios prepared by the Community Resources Board were presented to the First Nations. The Nat'oot'en showed some interest in becoming involved with the LRMP process at this time. Subsequent discussions with the Nat'oot'en, Wet'suwet'en and the Gitksan were held to discuss the LRMP process to that point, and review the opportunities for involvement. The Wet'suwet'en concluded these discussions with a letter describing their desire to have a Memorandum of Understanding in place before any involvement in the LRMP could take place. A similar letter was received from the Nat'oot'en in the fall of 1995 when they were approached to participate in a Socio-economic analysis of the LRMP.

In March, 1996, meetings took place with the Tsimshian to develop a consultation process including their opportunity for input into the LRMP. Their Land and Resources office was only just being established and the Tsimshian indicated there was limited potential for them to become involved.

The Consensus Management Direction was presented to all First Nations along with the 1996 5-Year Development Plans. In an open house format, strong support was received for the ecosystem network and wildlife maps, and the associated consideration of values. Officially, however, no response was received from any of the First Nations.

Other Efforts to Incorporate First Nations Interest in Planning

1. Traditional Use Studies and Territories

Traditional use studies to identify First Nations values are underway for territories within the Bulkley Forest District. This information, along with resulting understandings of First Nations perspectives, could lead to their involvement in future plans and initiatives required to implement the LRMP.

The Gitksan have just completed Phases I and II of a Traditional Use Study (TUS), and are revising their submission to complete the project for Phases III and IV. The project time is

estimated to be at least one year. The Wet'suwet'en have approved funding for Phases III and IV, and are expected to complete the project by the end of March 1997. The Nat'oot'en submitted a proposal early in the year to begin a TUS, but their proposal was rejected. The Tsimshian have indicated their interest in doing a TUS, but they have not yet submitted a proposal.

2. *Operational Planning Consultation*

Operational planning has taken guidance from, and considered the values identified by, the LRMP throughout its development. Consultation on the five year development plan provides an opportunity to discuss these values on a stand by stand basis, as well as look at planned development across various landscapes. Insight into First Nations perspectives can be meaningful at this level as it is possible for them to identify specific traditional use areas within individual house territories.

An Operational Planning Referral Protocol has been entered into with the Wet'suwet'en. This protocol outlines a thorough consultation process that is extended to all First Nation bands within the Bulkley Forest District. Consolidated 5-Year Forest Development Plans are provided to the First Nation bands, after which a presentation is given to clarify any outstanding questions. Joint field trips with band offices, hereditary chiefs, licensees and Ministry of Forests take place on specific blocks of concern, during which not only are concerns addressed but information on traditional use of specific areas is exchanged.

3. *Future consultation*

A major part of the LRMP will be delivered through the development of landscape unit plans. The landscape unit planning level is integral to blending the strategic direction given by the LRMP to the needs of operational plans. Strategic objectives will be clearly defined and put into operational direction for specific areas. Mapping is done at a 1:50,000 scale and the landscape units closely match First Nations house territories. Landscape units therefore provide a closer fit to the First Nations political structure.

Preliminary examples of the Bulkley Forest District's landscape unit planning have been discussed with the Wet'suwet'en and the Nat'oot'en with favourable responses. Efforts will be made to ensure meaningful First Nations involvement occurs in landscape unit planning.

Appendix 6. Cultural Heritage Resources

For the purpose of this plan, cultural heritage resources refers to archaeological and traditional use sites.

Traditional Use Sites

The term “traditional use site” means any geographically defined site that has been traditionally used by one or more groups of people for some type of activity. These sites will often lack the physical evidence of human-made artifacts or structures, but will maintain cultural significance to a living community of people.

Traditional use sites are usually documented with the assistance of oral, historical, and archival sources. Examples include: sacred sites, ritual bathing pools, resource gathering sites and sites of a legendary or past event of cultural significance.

Under the *Forest Practices Code*, a forest development plan must identify the known location of areas of aboriginal sustenance, cultural, social and religious activities associated with traditional aboriginal life and the results of any cultural heritage impact assessments. A cultural heritage impact assessment, including measures to address cultural heritage resources, may be required prior to timber harvesting or road work. If an unknown cultural heritage resource is discovered during operations, operations should stop, the resource should not be damaged and the district manager should be advised promptly.

Archaeological Sites

Archaeological sites differ from traditional use sites. Archaeological sites are locations that contain physical evidence of past human activity for which the application of scientific methods of inquiry are the primary source of information. These resources do not necessarily hold direct associations with living communities, therefore archaeological sites may or may not coincide with locations identified by First Nations as traditional use sites. Examples include shell middens, lithic scatters, cache pits and pit house remains.

Specific types of archaeological sites are automatically protected by provisions of the *Heritage Conservation Act*. These types include sites containing artifacts, features, materials or other physical evidence of human habitation or use prior to 1846; burial places that have historical or archaeological values; and aboriginal rock paintings or rock carvings that have historical or archaeological value. Other types of protected sites are also identified in the *Heritage Conservation Act*. Protected sites may not be altered without a permit issued under the *Act*, which applies equally to Crown and private lands.

An archaeological overview assessment for the Bulkley Plan Area was completed in March 1995 (Eldridge et al, 1995). The study was completed at the 1:250 000 scale and classified the planning area into zones with low, moderate or high potential to contain archaeological sites. The land was classified as 31% low, 40% moderate and 29% high. Existing records identified 115 sites within the Plan Area.

Within the Forest Practices Code and Regulations, archaeological sites are captured under the term cultural heritage resources. A district manager may require an archaeological impact assessment that meets the requirements of the minister responsible for the *Heritage Conservation Act* prior to timber harvesting or road work under a forest development plan or access management plan. If an unrecorded archaeological site is discovered during operations, operations should stop, the resource should not be damaged and the district manager should be advised promptly.

In addition to the Code, the 1994 Protocol Agreement on the Management of Cultural Heritage Resources between the Ministry of Small Business, Tourism and Culture (MSBTC) and the Ministry of Forests (MOF) clarifies the roles and responsibilities of these ministries in assuring the integration of cultural heritage resources in MoF's forest planning and operation. The protocol states that the results of the archaeological overview assessments undertaken for LRMPs will be communicated to the MOF. Through additional investigation, this information may be refined to the 1:50 000 or 1:20 000 scale to form the basis of MOF operational decision making.

The Protocol also states, "Generally, an archaeological impact assessment is required where the need for one has been identified in the archaeological overview assessment or where the MOF, in consultation with MSBTC, determines there is a need for one in an area planned for forest management activities."

Appendix 7. Interagency Agreement-In-Principle Regarding Implementation of Revisions to the Babine Mountains Recreation Area (BMRA) Boundary

January 17, 1996

In accordance with the Bulkley Valley Community Resources Board consensus recommendations with respect to deletion of Sub-Units 5.2, 5.3 and 5.4 and the addition of Sub-Unit 5.5 to the Babine Mountains Recreation Area, and,

Subject to favorable public review of the Bulkley Land and Resource Management Consensus Management Direction,

We the undersigned, as members of the Interagency Planning Team, agree to participate in the development of a Memorandum of Understanding among our Ministries / Agencies to ensure a continuation of resource management as established in the BMRA Master Plan and provide the opportunity for mineral exploration and development in the deleted Sub-Units 5.2, 5.3 and 5.4.

The Memorandum of Understanding would include the following Ministry / Agency commitments:

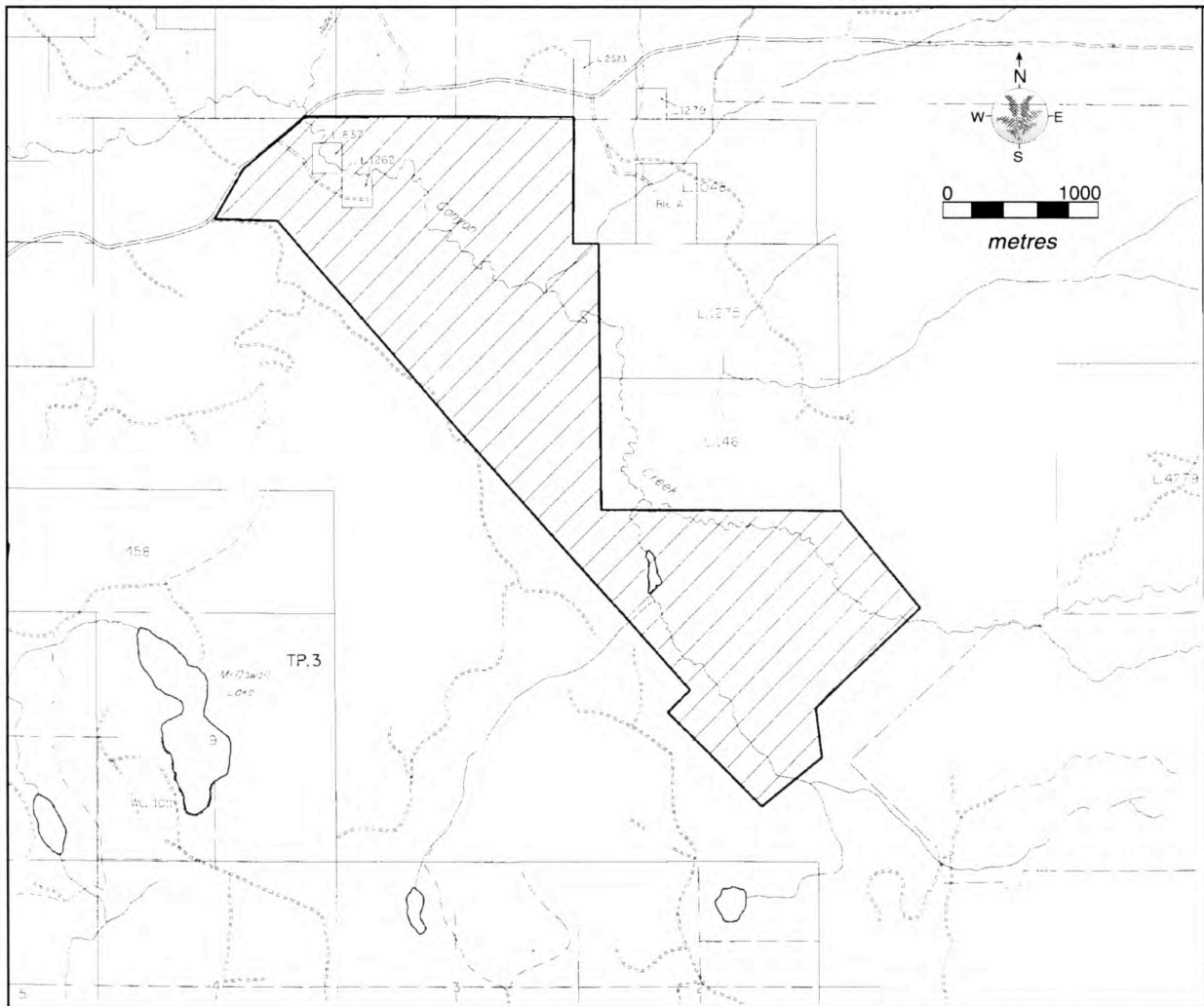
1. The Ministry of Energy, Mines and Petroleum Resources will refer every application for a *Mines Act* permit to the consensus-based, interagency Northwest Mine Development Review Committee, prior to issuing any permit or approval for mineral exploration or other mine development activities in Sub-Units 5.2, 5.3 or 5.4.
- 1A. The Ministry of Energy, Mines and Petroleum Resources will require that, for every application for a *Mines Act* permit in Sub-Units 5.2, 5.3 or 5.4, a notice of the filing of such application will be posted in the Gazette and in local newspapers, and that any person affected by or interested in the application will have 30 days to submit written comments to the Chief Inspector of Mines in accordance with Section 10.2 of the Health, Safety and Reclamation Code for Mines in British Columbia.
2. Section 6 of the *Park Act* will be used to control main access roads on the Onion (3), Cronin and Orange. The required Order in Council could be made in conjunction with establishment of the Park on Sub-Units 5.1 and 5.5. Section 6 of the *Park Act*, in part, states: "Where a trail owned by the Crown is available for use by the public as a trail, the Lieutenant Governor in Council may, by order made under this *Act*, authorize the Parks Branch to manage and administer the trail or the interest of the Crown in it."

3. In accordance with the strategic direction contained in the Bulkley Land and Resource Management Plan (LRMP) approved by Cabinet, the Ministry of Forests will issue an order under Section 105 of the *Forest Practices Code Act*, or alternatively under Section 6 of the *Forest Practices Code Act*, to provide for management of public recreation on Crown land in Sub-Units 5.2, 5.3 and 5.4. The intent of this order is to prohibit ATV use in these Sub-Units (excluding snowmobiles), and except as approved in Section 1 of this agreement for mining purposes.
4. The appropriate mining legislation will be applied to compliment the efforts of other agencies to achieve the approved management objectives for Sub-Units 5.2, 5.3 and 5.4.
5. The costs associated with access control, e.g. ditches or barriers, repairs to gates or rehabilitation of damaged areas caused by unauthorized activities, will be shared equally by the Ministries of Energy, Mines and Petroleum Resources, the Ministry of Forests and BC Parks. Appropriate costs may also be the responsibility of mineral companies if they are involved.
6. The Ministry of Transportation and Highways will continue to manage and maintain, at their cost, the Driftwood Road and its bridges to Sunny Point.
7. Adequate resources will be made available by the agencies to effectively manage Sub-Units 5.2, 5.3 and 5.4 in accordance with the Bulkley LRMP.
8. Any activities planned adjacent to the boundaries of the Park will be referred to BC Parks for review and comment.

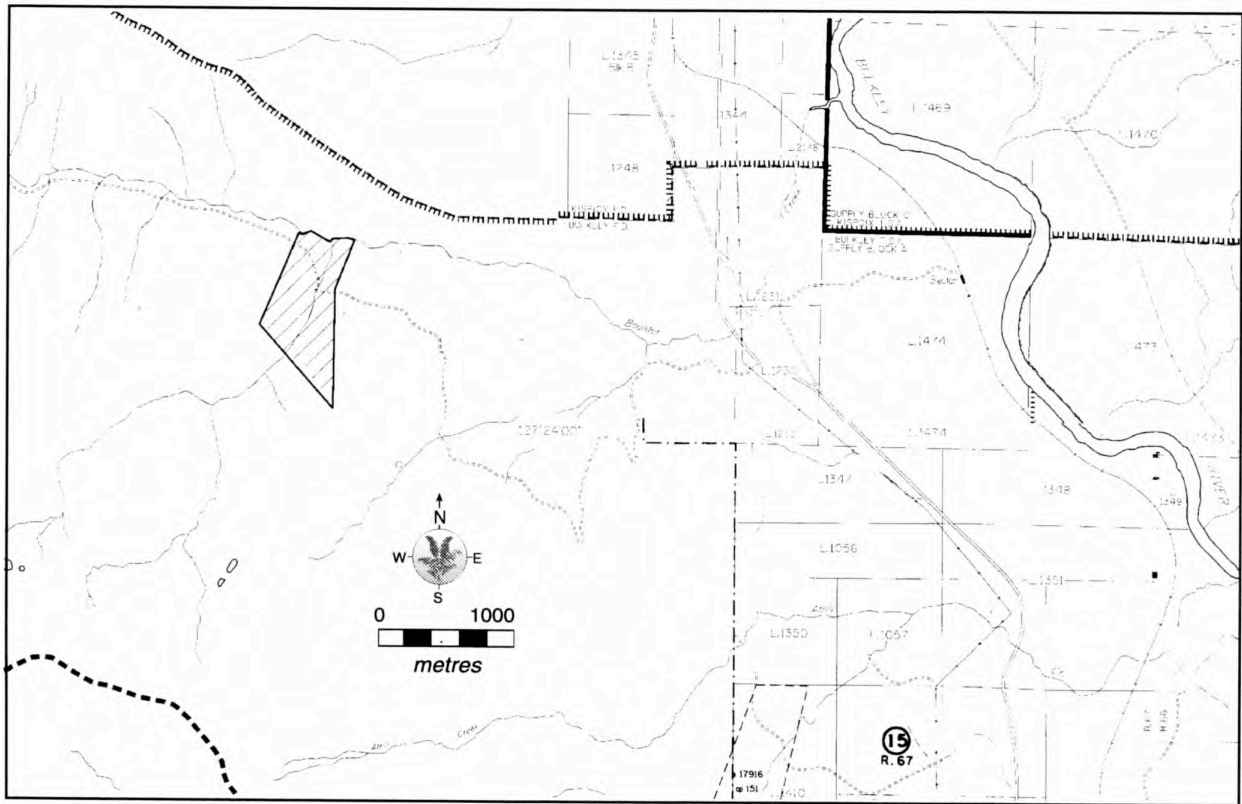
Appendix 8. Maps of Goal 2 Areas (Protected Areas Strategy)

1. Burnt Cabin Bog (50k)
2. Boulder Creek (35k)
3. Netalzul Meadows (38k)
4. Nilkitkwa Lake Sites (37k)
5. Rainbow Alley (46k)
6. Call Lake (46k)

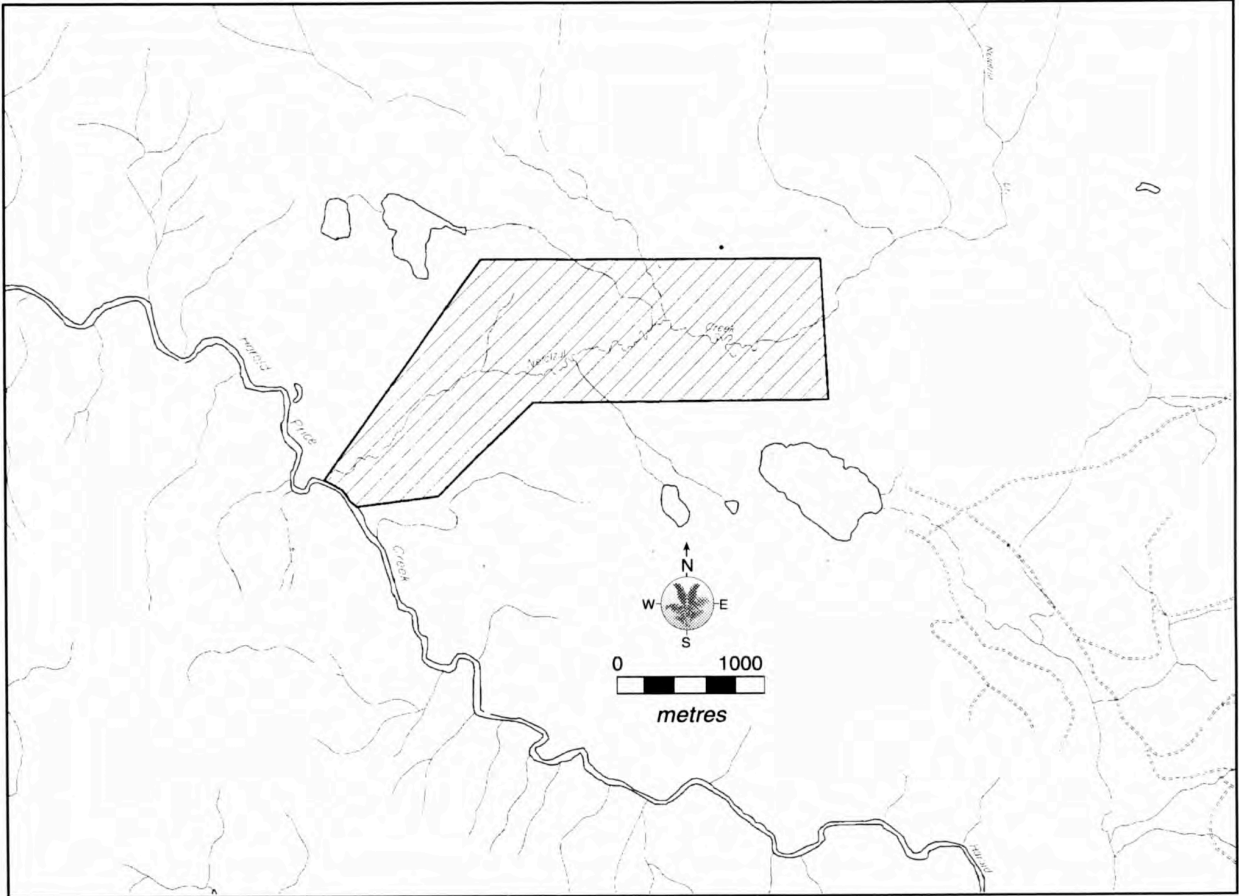
Burnt Cabin Bog
Goal 2 Protected Area (649 hectares)



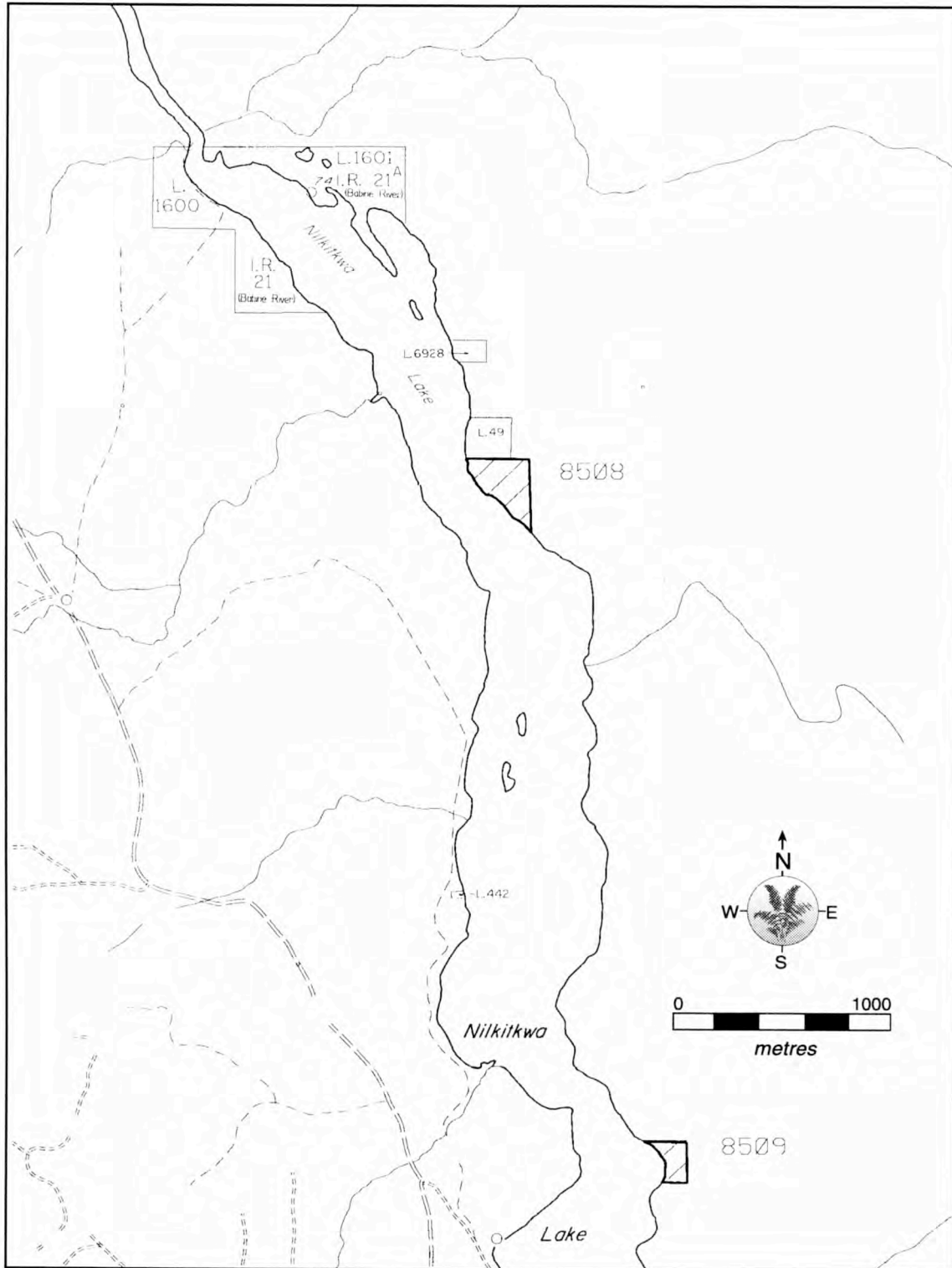
**Boulder Creek
Goal 2 Protected Area (49 hectares)**



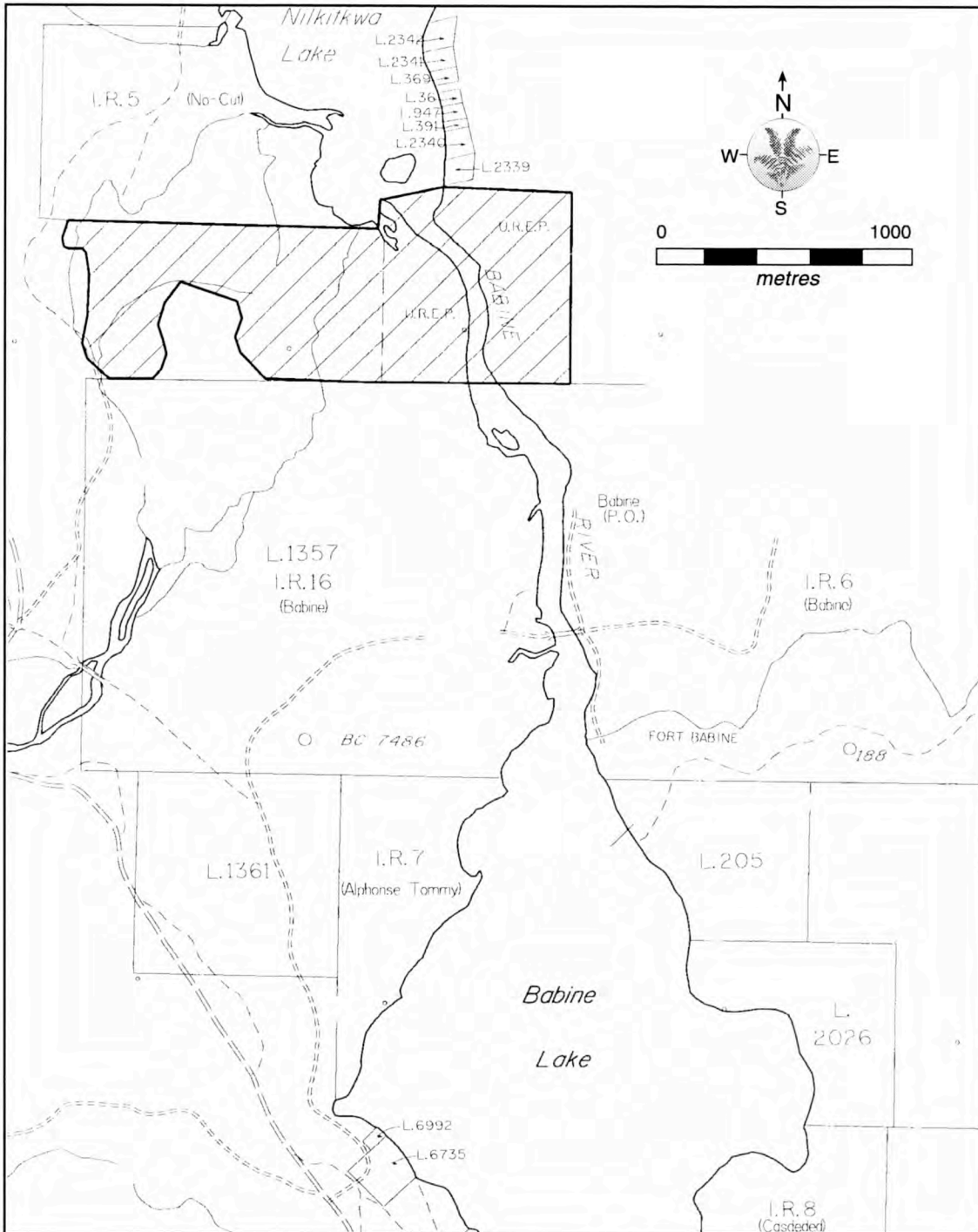
Netalzul Meadows
Goal 2 Protected Area (339 hectares)



Nilkitkwa Lake
Goal 2 Protected Area (7 & 2.5 hectares)



Rainbow Alley
Goal 2 Protected Area (157 hectares)



Call Lake
Goal 2 Protected Area (62 hectares)

