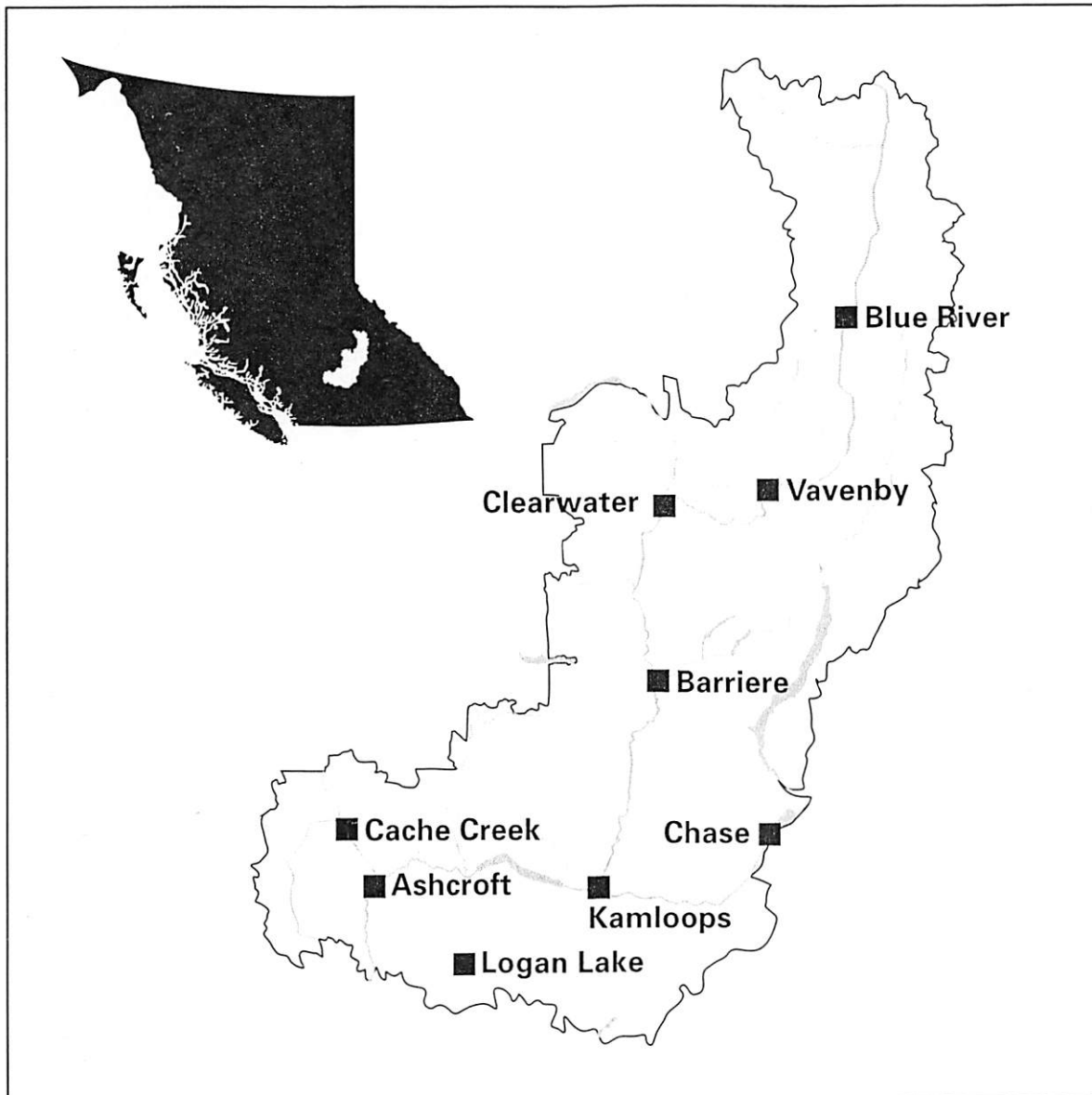


Kamloops Land and Resource Management Plan



July 1995



Province of
British Columbia

Table of Contents

Letter of Approval

Executive Summary

1.0 Introduction

1.1 The Planning Area

1.1.1 Physical Description

1.1.2 Social and Economic Description

1.2 The Planning Process

1.2.1 Goals

1.2.2 Principles

1.2.3 Process Overview

1.3 First Nations Involvement

2.0 Resource Management Zones

2.1 General Resource Management Zone

2.1.1 Land Management

2.1.2 Water Management

2.1.2.1 Riparian Management Areas

2.1.3 Ecosystem Management

2.1.3.1 Biodiversity Emphasis Options

2.1.4 Grasslands Management

2.1.5 Inland Fisheries

2.1.6 Anadromous Fisheries

2.1.7 Tourism

2.1.8 Recreation

2.1.9 Agriculture

2.1.10 Range

2.1.11 Minerals

2.1.12 Wildlife

2.1.12.1 Critical Deer Winter Range

2.1.12.2 Critical Moose Winter Range

2.1.13 Timber

2.1.14 Visually Sensitive Areas

2.1.15 Heritage Trails

2.1.16 Cultural and Heritage Sites

2.1.17 Traditional Native Land Use

- 2.2 Settlement Resource Management Zones**
 - 2.2.1 Resource Management Objectives and Strategies
- 2.3 Protection Resource Management Zones**
 - 2.3.1 Resource Management Objectives and Strategies
 - 2.3.1.1 Domestic Livestock Grazing in Protection RMZ's
 - 2.3.2 Area-Specific Objectives and Strategies
 - P1. Arrowstone
 - P2. Blue Earth
 - P3. Bonaparte
 - P4. Caverhill High Basin
 - P5. Clearwater River Corridor
 - P6. Cornwall
 - P7. Dunn Peak
 - P8. Elephant-Rattlesnake
 - P9. Emar
 - P10. Guichon
 - P11. Lac du Bois
 - P12. McConnell Lake
 - P13. Momich
 - P14. Oregon Jack
 - P15. Paul Lake Extension
 - P16. Porcupine
 - P17. Roche Lake
 - P18. Taweel
 - P19. Trophy Mountain
 - P20 Two Spring
 - P21. Upper Adams
 - 2.3.3 Goal Two Protection Resource Management Zones
 - 2.3.4 Goal Two Protection Resource Management Zones Identified for Future Review
- 2.4 Special Resource Management - Community Watersheds**
 - 2.4.1 Resource Management Objectives and Strategies
- 2.5 Special Resource Management - Habitat / Wildlife Management Areas**
 - 2.5.1 Resource Management Objectives and Strategies
 - 2.5.2 Area-Specific Objectives and Strategies
 - H1. North Thompson Caribou Habitat (General)
 - H2-H9. North Thompson Caribou Habitat / Recreation and Tourism
 - H10. Battle Bluffs Habitat
 - H11. Skull Habitat
 - H12. Skwilatin Habitat
 - H13-H14. Wildlife Management Areas

- 2.6 Special Resource Management - Recreation and Tourism**
 - 2.6.1 Resource Management Objectives and Strategies
 - 2.6.1.1 Higher Use Recreation and Tourism Zones
 - 2.6.1.2 Natural Environment Recreation and Tourism Zones
 - 2.6.1.3 Backcountry Recreation and Tourism Zones
 - 2.6.1.4 Remote Recreation and Tourism Zones
 - 2.6.2 Area-Specific Objectives and Strategies
 - R1. Alan Creek
 - R2. Bischoff
 - R3. Blustery
 - R4. Bone
 - R5. Clemina
 - R6. Lac le Jeune
 - R7. North Thompson Glacier (including McAndrew Lake)
 - R8. Smoke
 - R9. Taweel
 - R10. Thompson and South Thompson Rivers
 - R11. Tod Mountain - outside the Controlled Recreation Area
 - R12. Tod Mountain - Controlled Recreation Area
 - R13. Lakes Areas

3.0 Implementation

- 3.1 Roles and Responsibilities**
 - 3.1.1 LRMP Follow-up Committee (short-term)
 - 3.1.2 LRMP Follow-up Committee (long-term)
 - 3.1.3 Interagency Management Committee
 - 3.1.4 Agencies
 - 3.1.5 First Nations
 - 3.1.6 Public
- 3.2 Direction for Local Level Planning**
 - 3.2.1 Criteria that Apply to All Local Level Plans
 - 3.2.2 Priorities for Local Level Planning
- 3.3 Public Education**
- 3.4 Inventory and Research Priorities**
- 3.5 Economic Transition**
 - 3.5.1 Grazing Enhancement Fund
 - 3.5.2 Community Skills Centre

4.0 Monitoring and Amendment

4.1 Monitoring

4.1.1 Annual Report

4.1.2 Annual Meeting

4.1.3 Indicators for Monitoring Plan Impacts

4.2 Update and Amendment

4.2.1 Plan Updates

4.2.2 Unscheduled Amendments

4.2.3 Scheduled Amendments

4.3 Interpretation and Appeal

4.3.1 Appeal of Resource Management Practices

4.3.2 Interpretation of Land Use Prescriptions

4.3.3 Other Concerns

Appendices

Glossary of Terms

Appendix 1: Priorities for Watershed Assessment

**Appendix 2: Management Strategy for the Zugg Mineral Claims / McAbee
Fossil Beds**

Appendix 3: Measures to Offset Potential Plan Impacts

Appendix 4: List of LRMP Related Documents

Appendix 5: List of LRMP Participants

Appendix 6: Interim Measures for Biodiversity Management

Appendix 7: Preliminary Landscape Unit Biodiversity Emphasis Options

Appendix 8: Visual Quality Guidelines for Timber Harvesting

**Appendix 9: Kamloops LRMP Policy for Domestic Livestock Grazing in
Protection Resource Management Zones**

**Appendix 10: Timber Harvesting Guidelines for North Thompson Caribou
Habitat**

List of Figures

Figure 1: The Kamloops LRMP Planning Area

Figure 2: Secwepemc Nation Traditional Territory

Figure 3: Resource Management Zones

Figure 4: Critical Deer and Moose Winter Range

Figure 5: Visually Sensitive Areas

Figure 6: Archaeological Overview Assessment

Figure 7: Settlement Resource Management Zones

Figure 8: Protection Resource Management Zones

Figure 9: Special Resource Management - Community Watersheds

**Figure 10: Special Resource Management - Habitat/Wildlife
Management Areas**

Figure 11: Special Resource Management - Recreation and Tourism

Figure 12: Agriculture Land Reserve

Figure 13a: Metallic Mineral Potential in the Kamloops LRMP

Figure 13b: Industrial Mineral Potential in the Kamloops LRMP

Executive Summary

The Kamloops Land and Resource Management Plan is a sub-regional land use plan covering 2.2 million hectares of south-central British Columbia. It is the result of a two-year shared decision-making process that involved roughly forty public and government representatives. The Kamloops Land and Resource Management Planning (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).

There are three main sections to this plan: Resource Management Zones, Implementation and Monitoring and Amendment.

1. Resource Management Zones

Six Resource Management Zone (RMZ) categories have been designated for the LRMP area: General Resource Management, Settlement, Protection, Special Resource Management - Community Watersheds, Special Resource Management - Habitat / Wildlife Management Areas, Special Resource Management - Recreation and Tourism and Enhanced Resource Development.

1. **General Resource Management**
 - Areas where a basic set of objectives and strategies guiding management of land, water, ecosystems and resources is applied.
 - Includes roughly 1,373,000 hectares, or 61% of the total LRMP area.
 - Objectives and strategies for this zone are also applied as baseline management in all other Resource Management Zones except Protection.

2. **Settlement**
 - Areas proposed for settlement use by an Official Community Plan, Crown Land Plan or by the LRMP
 - Roughly 20,400 hectares, or 1% of the total LRMP area

3. **Protection**
 - Areas that have been identified for their natural, cultural, heritage and/or recreational values, in accordance with the Provincial Protected Areas Strategy.
 - Logging, mining and energy exploration and development are prohibited in all Protection RMZs.
 - In total, 21 Goal 1 areas and 40 Goal 2 areas have been designated as new Protection RMZs, in addition to previously existing Provincial Parks.
 - Roughly 107,500 hectares, or roughly 5% of the total LRMP area

4. **Special Resource Management - Community Watersheds**
 - Special Resource Management areas, where resource development activities are permitted and encouraged as long as Community Watershed management objectives are met.
 - Any Community Watershed, as defined by the *Forest Practices Code of British Columbia Act* and the Community Watershed Guidelines.
 - Watershed Assessment Procedures will be conducted for each Community Watershed.
 - Approximately 95,600 hectares, or 4% of the total LRMP area

5. **Special Resource Management - Habitat/ Wildlife Management Areas**
 - Special Resource Management Areas, where resource development activities are permitted and encouraged provided that habitat management objectives are met.
 - Includes the most important habitat areas in the LRMP for Mountain Caribou, Rattlesnakes, Bats, California Big Horn Sheep, Moose, Deer, Flammulated Owl, and a variety of other species.
 - Includes 3 Wildlife Management Areas, which are to continue to be managed as such by the Ministry of Environment, Lands and Parks.
 - Roughly 321,300 hectares or 14% of the total LRMP area

6. **Special Resource Management - Recreation and Tourism**
 - Special Resource Management areas, where resource development activities are permitted and encouraged provided that recreation and tourism management objectives are met.
 - 11 areas have been designated and categorized as either Higher Use, Natural Environment, Backcountry or Remote, for which management objectives and strategies have been developed.
 - Approximately 108,700 hectares, or 5% of the total LRMP area.

2. Implementation

Implementation of the Kamloops Land and Resource Management Plan is the responsibility of the Kamloops Interagency Management Committee. This group will direct the appropriate agencies to work with the public, local government and First Nations to ensure that the objectives and strategies contained in this plan are reflected in local level plans as well as operational resource management activities.

It is a fundamental goal of the Kamloops LRMP that there should be no net job loss as a result of the plan, and that the overall level of commerce in the area should not decline. To this end, economic transition strategies have been developed and approved by government as part of plan implementation. These strategies include: establishing a Grazing Enhancement Fund to maintain or enhance cattle grazing opportunities and to meet conservation needs; opening a Community Skills Centre in Clearwater to ensure workers have the necessary skills to keep pace with their current jobs or to take advantage of new employment opportunities; opening a Forest Renewal Office in Kamloops; and, sponsoring prospectors' training grants and geo-science studies.

3. Monitoring and Amendment

Following implementation of the plan, an annual Monitoring Report will be produced by the Kamloops Interagency Management Committee. An annual meeting will then be held to review the report and solicit public comments. Plan updates and unscheduled amendments may occur where appropriate, up until the scheduled amendment eight years after implementation of this plan. A revised Kamloops LRMP will be completed by the tenth year.

1.0 Introduction

This report represents the Cabinet-approved Kamloops Land and Resource Management Plan (LRMP), which was prepared based upon the Recommendation Package (Volumes 1 & 2) of the Kamloops LRMP team. This is a sub-regional land use plan covering 2.2 million hectares of south central British Columbia (Figure 1). The Kamloops LRMP forms one part of British Columbia's Land Use Strategy, and directs the management of all 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).

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

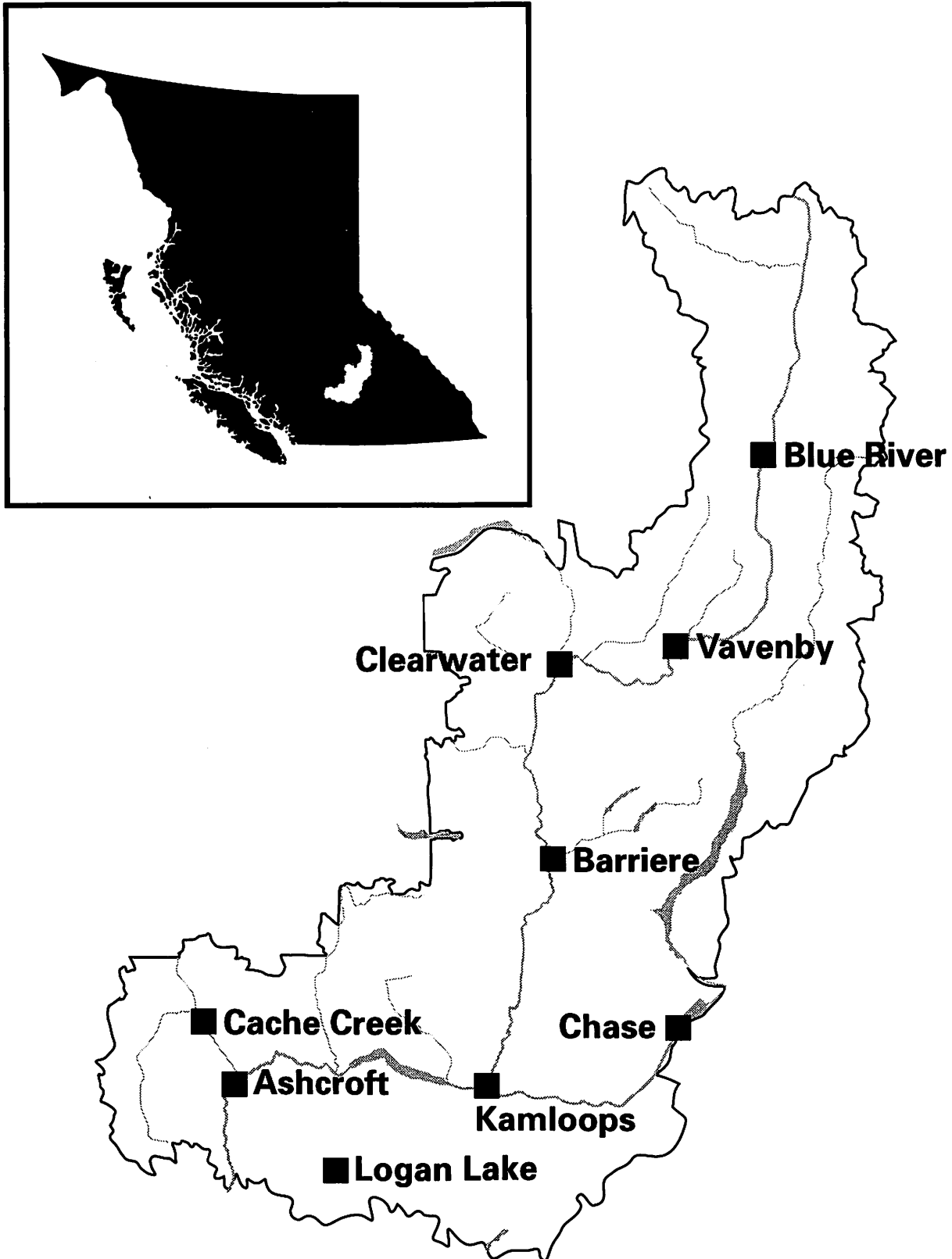
This report contains:

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

The Kamloops LRMP Recommendation Package (Volumes 1& 2) was prepared by a team of representatives from government and the public, and in consultation with First Nations, and is an integral part of this plan. In the event of a need for clarification of spirit or intent of this Plan, or for dispute resolution purposes, refer to the Kamloops LRMP Recommendation Package (Volumes 1 & 2). The Kamloops LRMP team also endorses this Cabinet-approved plan.

Updates and amendments to the July 28, 1995 plan are noted by a different date at the bottom of each page.

Figure 1: The Kamloops LRMP Planning Area



1.1 The Planning Area

1.1.1 Physical Description

In biophysical terms, the LRMP area is one of sharp contrasts, from dry, hot grasslands in the south to wet and rugged mountains in the north. The Thompson River and its tributaries wind through the heart of the area, travelling southward and westward toward its confluence with the Fraser River.

In the northern portion of the LRMP area, the North Thompson River is bounded by the high peaks of the Monashee and Cariboo Mountains. Wet to very wet conditions, with high snowfalls, are the norm. In the central part of the LRMP area the mountains give way to high plateaux dissected by steep valleys and dotted with lakes and rivers. Moist conditions support mixed forests. Further south, the landscape continues to become drier and more gentle, with rolling uplands and numerous lakes. The dense forests of the north and central areas give way to mixed pine-fir forests with grasslands in the southern valleys.

The Kamloops LRMP area encompasses six ecosections and nine biogeoclimatic zones (Bunchgrass, Ponderosa Pine, Interior Douglas-fir, Interior Cedar-Hemlock, Montane Spruce, Sub-Boreal Spruce, Sub-Boreal Pine Spruce, Engelmann Spruce-Subalpine Fir and Alpine Tundra).

1.1.2 Social and Economic Description

The Kamloops Land and Resource Management Plan area covers more than 2.2 million hectares and lies wholly within the Thompson-Nicola Regional District. The LRMP area, with a total population of 90,347 (1991), has two distinct economic areas:

The Kamloops Area, centred around the confluence of the North and South Thompson Rivers at Kamloops, has 91 per cent of the total LRMP area population. The City of Kamloops dominates this southern area, with 80 per cent of its population; other smaller communities include Logan Lake, Ashcroft, Cache Creek and Savona. Population in the area grew by eight per cent from 1986 to 1991.

Traditionally, economic activity was based on agriculture (mainly forage and livestock operations) and transportation. In the 1960s, forestry and mining moved ahead of agriculture; these three sectors continue to dominate the non-urban areas.

The economy within the City of Kamloops is relatively diversified. The service sector is the largest employer (38 per cent of the total labour force) since the city is a major service and administrative centre for much of the south-central interior.

The North Thompson Area, extending along the North Thompson River north of Louis Creek, has a population of 8,000. The two largest communities are Clearwater and Barriere. From 1986 to 1991, the population of this area declined by seven per cent.

Forestry is a primary economic activity and several smaller communities are almost entirely dependent on the forest sector. Commercial and tourist traffic on the Yellowhead Highway, tourism and agriculture are also important.

Overall in the non-urban areas of the LRMP area, the resource sector (forestry, agriculture, mining) and the manufacturing sector (especially forest products processing) are the biggest employers (24 and 14 per cent respectively). Tourism is another important sector that depends on the land resource base.

The following table summarizes the employment, income and government revenue generated by the five main resource sectors in the LRMP area.

	Employment (1993 person-years ¹)		Employment Income (millions 1993\$)		Government Revenue ² (millions 1993\$)
	Direct	Total ³	Direct	Total ⁴	
Forestry ⁵	2894	7324	\$97	\$197	\$67
Mining	1562	3749	\$63	\$111	\$49
Agriculture ⁶	934	1681	\$18	\$36	\$4
Tourism ⁷	412	741	\$7	\$15	\$2
Commercial Fisheries	92	166	\$2.5	\$4	\$2

Total number of people employed in the experienced labour force in the LRMP area was 47,010 in 1991 (Statistics Canada)

Income levels in the Kamloops LRMP area are higher than the B.C. average for non-metropolitan areas. Income for males is highest in Logan Lake at \$44,772 (\$1993) and for females in Kamloops at \$15,846 (\$1993). Since 1986 unemployment rates have generally declined throughout the LRMP area.

¹one person working the equivalent of one full year.

²includes local and provincial government revenues (property and income taxes, stumpage, etc.).

³includes direct employment and employment created by spending in this sector (e.g. equipment suppliers), within the LRMP area and throughout the province.

⁴includes direct income and income generated in indirect sectors, within the LRMP area and throughout the province.

⁵forestry employment and employment income are based on the 1993 billed volume of 3.2 million cubic metres from all lands within the LRMP area. Government revenue from forestry is estimated based on the allowable annual cut of 2.7 million cubic metres.

⁶employment and employment income estimates include wage labour and owner-operators.

⁷includes only land and resource-based tourism (e.g. sport fishing, guide outfitting, adventure tourism).

Education levels in the LRMP area are comparable to other non-metropolitan B.C. areas. About 43 per cent of the labour force has some education beyond high school, while 45 per cent do not have a high school diploma. Based in Kamloops, the University College of the Cariboo provides a wide range of educational programs, from degrees to trades and industrial training.

There are ten First Nations located within the Kamloops LRMP area, all south of Clearwater, and an additional ten bands whose people reside outside of the LRMP area but whose traditional territory extends into the LRMP. The largest group in the LRMP area is the Secwepemc Nation (Shuswap Nation) with seven bands, accounting for 87 per cent of on-reserve population. The total population of aboriginal people is 4,900 within the LRMP area.

1.2 The Planning Process

1.2.1 Goals

Early in the planning process, the Kamloops LRMP Planning Team agreed to six goals for the plan. These goals provided the framework within which the plan was developed. All of the objectives and strategies that follow are designed to meet these goals.

LRMP Goals

A balanced use of the land and resources which respects and accommodates all interests;

Protection and security of the land and resources for future generations;

Sustainable resource management practices which recognize the biological and physical limitations of the land and resources, and provide the highest and best values from these resources;

Compatibility with natural watershed processes and respect for the intrinsic value of nature;

Social and economic stability and vitality of local communities; and

Communication, education, and awareness of all values, including those of aboriginal peoples.

1.2.2 Principles

The planning process was guided by the standards and principles outlined in *Land and Resource Management Planning: A Statement of Principles and Process (1993)*. Some of the more important principles are:

- respect and consider all resource values;
- be consistent with provincial policy and procedures and take direction from provincial strategies. The process will incorporate and respond to new directions as they emerge;
- base decisions on the principles of resource sustainability and integrated resource management. Land allocation and resource management strategies will consider the environmental capacity of the land to sustain use;
- provide strategic direction to and link with local level planning;
- strive for consensus between the public, user groups and the resource management agencies;
- include representatives from all parties with a key interest or stake in the outcome, including: resource agencies, those directly affected by decisions, and those who could delay or block a decision;

- encourage aboriginal people to actively participate, ensure decisions are sensitive to their interests and recognize and incorporate joint stewardship agreements;
- present decision-makers with a consensus recommendation for land and resource management, and where this is not possible, a range of options. The government is committed to respond to the outcome by acting upon the agreement, or providing clear reasons if it does not.

Planning Team members agreed to strive for consensus in their decision-making process. The Team defined consensus as "lack of disagreement." Team members had the option of standing aside from decisions, with the understanding that they were not able to revisit that decision at a later date.

1.2.3 Process Overview

The Kamloops Land and Resource Management Planning process was initiated in 1989, when the Ministry of Forests was mandated with developing a new plan for the Kamloops Timber Supply Area.

At this time, 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. As a result, the LRMP process was developed based on the principles of public participation, interagency co-operation, full consideration of all resource values, and consensus decision-making.

The Kamloops LRMP process paralleled the development of provincial LRMP and protected area policies. It was the first Land and Resource Management Plan to be approved by government.

The planning team consisted of roughly 40 representatives from government agencies, industry, public interest groups and resource stakeholders, all of whom participated as an equal voice at the table. A list of the individual representatives from each participant group is provided in Appendix 5.

Planning Participants on the Kamloops LRMP Planning Team	
BC Cattleman's Association	Shuswap Environmental Action Society
BC Fishing Resorts and Outfitters Association	Thompson Area Development Association
Shuswap Region BC Wildlife Federation	Yellowhead Ecological Association
Clearwater Loggers Association	Clearwater Public Advisory Committee
High Country Tourism Association	Kamloops Snowmobile Association
Independent Prospectors	Clearwater Tourism Consortium
Interior Logging Association	Gold Dredger's Association
IWA Canada	Fisheries and Oceans Canada
Kamloops Exploration Group	Ministry of Agriculture, Fisheries and Food
Kamloops Naturalists	Ministry of Energy, Mines and
Kamloops TSA Group	Petroleum Resources
Pulp, Paper and Woodworkers of Canada	Ministry of Environment, Lands and Parks
Share the Thompson	Ministry of Forests

The planning process consisted of seven phases that began in the fall of 1989. Final government approval was received in June of 1995,. Implementation and monitoring of the plan will continue over the next ten years. The process is outlined in the following chart:

Phase 1	October 1989-October 1992 Form Interagency Planning Team Assemble information and resource maps Identify issues
Phase 2	November 1992-March 1993 Form broad-based planning team Define Resource Unit boundaries Prepare Resource Unit Profiles Prepare environmental, economic and social profile
Phase 3	April 1993 - December 1993 Prepare draft land use allocation Develop management objectives and strategies Organize Plan Scenarios
Phase 4	January 1994 - January 1995 Prepare resource analyses Conduct multiple account analysis of Plan Scenarios Negotiate and define recommendation Conduct resource analyses on recommendation
Phase 5	February 1995 - June 1995 Ratify agreement and submit recommendation for approval Approval-in-principle given by Cabinet Plan preparation Cabinet approval of Plan
Phase 6	July 1995 -April 1996 Short-term Follow-up Committee Submit recommendations for approval Cabinet approval of addendum to Plan
Phase 7	April 1996 on Implementation and Monitoring Annual Review

In addition to public participation on the planning team, a communications strategy was employed to ensure that the general public was kept informed of the LRMP process and its land use recommendations. Some of the key components of the strategy were: regular media contact; newsletters distributed to the wider public; open houses; and the *Multiple Accounts Analysis Discussion Paper*.

Open houses were held in communities throughout the LRMP area: during the summer of 1994 to communicate the plan scenarios; during the fall of 1994 to communicate the results of the resource and multiple accounts analyses of the plan scenarios; and during February of 1995 to communicate the final LRMP recommendation being submitted to Cabinet. Public input from each of the Open Houses was solicited through questionnaires, summarized in *A Summary of Public Input, August 1994* and *A Summary of Public Responses, March 1995*, and provided to Cabinet prior to their final decision.

1.3 First Nations Involvement

Aboriginal rights exist in law and are recognized and affirmed under the *Constitution Act 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 (for example, through the sale of crown land, issuance of tenures, leases, licences and permits).

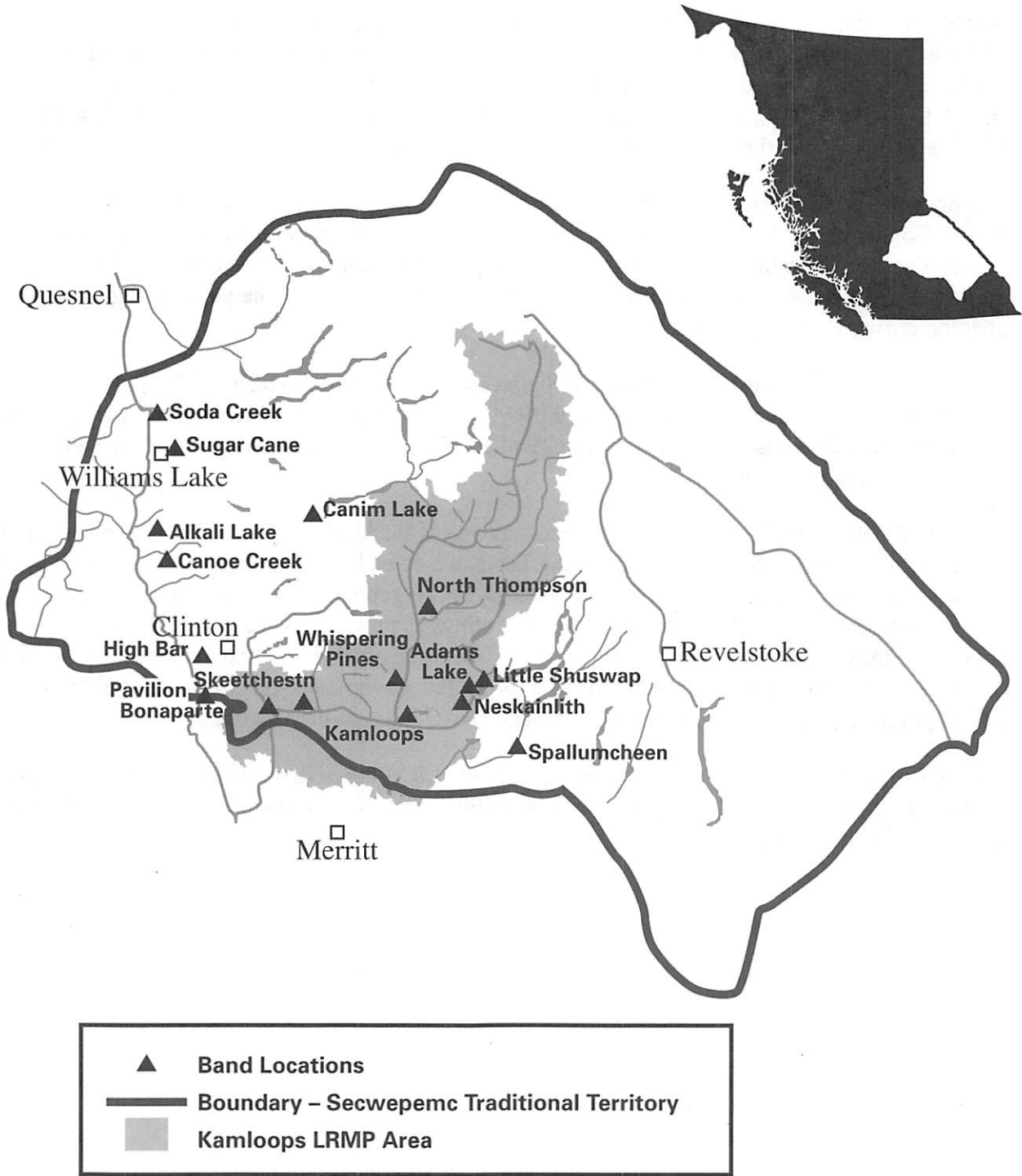
The provincial government is working toward settlement of land claims with First Nations in British Columbia. In developing the Kamloops Land and Resource Management Plan, the government reaffirms that all decisions are without prejudice to aboriginal rights. Land use decisions contained within the Kamloops LRMP will form the basis of the provincial government's position during treaty negotiations.

When the planning process first began, the Shuswap Nation Tribal Council (SNTC), whose traditional territory covers almost the entire LRMP area, was invited to participate. Other bands and tribal councils whose territories overlap the LRMP area were also invited to participate in the planning process but declined.

The SNTC participated in the planning process as one of the levels of government represented on the Interagency Planning Team and sat at the Table in a consultative role without participating in the negotiations. Throughout most of the process, SNTC representatives also attended Kamloops Interagency Management Committee (IAMC) meetings as guests to discuss specific issues of concern. Since September 1994, the Executive Committee of the First Nations Advisory Council (FNAC) has met monthly with the IAMC as a forum for government-to-government discussions. SNTC politicians and staff have helped represent FNAC in those discussions.

A statement of Secwepemc (Shuswap) interests in the LRMP area that overlaps their traditional territory is shown in the following pages. A map (Figure 2) of Secwepemc traditional territory is shown on the following page.

Figure 2: Secwepemc Nation Traditional Territory



Secwepemc Nation Statement of Interest

The following statement was prepared by the Secwepemc Nation for inclusion in the LRMP document.

Secwepemc Interests in the Kamloops Land and Resource Management Plan

Secwepemc (Shuswap) people respect and support the efforts of non-aboriginal people to plan for sustainable, integrated resource management. As the first occupants and owners of their traditional territory, however, Secwepemc people are concerned that their own rights be respected. In particular, they are aware that non-aboriginal governments have assumed jurisdiction over Secwepemc land and resources without dealing with Secwepemc title, and without compensation for the loss of traditional Secwepemc resources. Nor have non-aboriginal governments respected the unextinguished right of Secwepemc communities to use, manage and protect their lands, waters and resources as they see fit. The Secwepemc Nation has never surrendered ownership and jurisdiction over its natural resources to any other government.

The Secwepemc position regarding the Kamloops Land and Resource Management Plan (KLRMP) is based on the following five principles:

- **Inherent Secwepemc aboriginal rights and title, and the right of Secwepemc communities to exercise jurisdiction over their traditional lands and resources, must be recognized by non-aboriginal agencies and interests groups.** This is essential to land and resource management planning in Secwepemc traditional territory.
- **The Secwepemc Nation and its agencies constitute a distinct order of government, not an "interest group".** The KLRMP process is designed to be a forum for interests groups and various agencies involved in land use planning. Interest groups and non-aboriginal government agencies do not have aboriginal rights, whereas the Shuswap Nation does.
- **The KLRMP is not the appropriate process for negotiating aboriginal rights and title.** Secwepemc aboriginal title and rights will be negotiated on a government-to-government basis between Secwepemc government representatives and representatives of British Columbia and Canada, respectively.
- **KLRMP participants should be aware that their decisions regarding land use zones, allocation of resource tenures, and resource management strategies will be impacted by future treaty negotiations.** Secwepemc communities within the KLRMP planning area will negotiate a treaty with British Columbia and Canada to resolve the issues of aboriginal rights and title, and Secwepemc self-government. They do not want future treaty negotiations to be limited, prejudice, or compromised by the KLRMP process.
- **Secwepemc government agencies must be equipped with the same technical resource for land use planning, resource management, and treaty research as non-aboriginal governments and interests groups.** This is a pre-condition for resolving the issue of unextinguished aboriginal rights and title.

To assist KLRMP participants in being aware of Secwepemc interests within KLRMP planning area, the following is a partial interim outline of these interests.

Self-government interests:

1. *Jurisdiction and ownership*

- recognition of Secwepemc traditional territory
- recognition of Secwepemc aboriginal land title and rights
- meaningful consultation and informed consent before land use and resource management decisions are made.

2. *Joint planning*

- land use
- water quality
- resources and sustainability
- biological diversity

3. *Public education of Secwepemc interests in KLRMP*

- policy statements
- public forums
- workshops
- in-service professional development activities

Environmental Protection Interests:

1. *Land use zoning/management*

- parks and other protected areas
- special management areas
- integrated resource management
- environmental research/ monitoring: e.g. fish, wildlife, forest ecology, farmlands
- settlement planning

2. *Traditional Secwepemc resource uses*

- Fishing:
 - salmon, trout, char, etc.
- Hunting:
 - a) game animals - moose, deer, elk, caribou, goats, sheep, bear, etc.
 - b) birds - ducks, geese, grouse, etc.
 - c) fur-bearing animals - lynx, martin, marmot, otter, beaver, etc.
- Gathering:
 - a) berries - saskatoons, blueberries, huckleberries, cranberries
 - b) nuts - hazelnuts, pine
 - c) bark - birch, pine, alder
 - d) roots - corms and bulbs
 - e) firewood - all types
 - f) needles - pine
 - g) mushrooms
 - h) medicinal plants - known to Elders
- Settlement and occupation:
 - a) access trails and roads
 - b) camping for hunting, fishing, gathering
 - c) traditional occupation sites
 - d) housing material
 - e) special cultural sites, sacred sites, and gravesites
- Benefits from extraction of resources
 - a) food
 - b) shelter
 - c) clothing
 - d) medicine
 - e) handicrafts
 - f) cultural/ spiritual values
 - g) employment and/or traditional sustenance activities

Economic Development Interests:

1. *New or continuing economic activities, including:*
 - primary resource extraction (e.g. forestry, mining, agriculture, fishing)
 - manufacturing
 - retailing
 - services
 - recreation

2. *Economic enterprise*
 - job creation
 - skills training
 - joint ventures with Secwepemc communities
 - investment

3. *Revenues and revenue transfers*
 - revenue sharing with Secwepemc communities from resource extraction
 - financial compensation to Secwepemc communities for lost revenue opportunities

4. *Permits and tenures*
 - timber
 - minerals
 - settlement and/ or industrial sites
 - agricultural land, grazing
 - recreational sites (both public and private)
 - trapping, guide outfitting

2.0 Resource Management Zones

Resource management zones are divisions or zones within the LRMP area that represent distinct resource values or areas where specific resource management strategies will be applied. These zones are consistent with Forest Practices Code direction. Objectives for each resource management zone identify primary uses or values for the zone while management strategies provide broad strategic direction for achieving the intended objectives. Potential indicators for monitoring the impacts of these management strategies have also been recommended by the LRMP team and are noted in relevant sections. Agencies may refine these indicators as monitoring occurs.

The objectives and strategies for land and resource management apply to all agencies, resources and activities, and are the fundamental building blocks of the plan. They are enabled and complemented by a wide array of legislation, policies, processes and operational guidelines. These include:

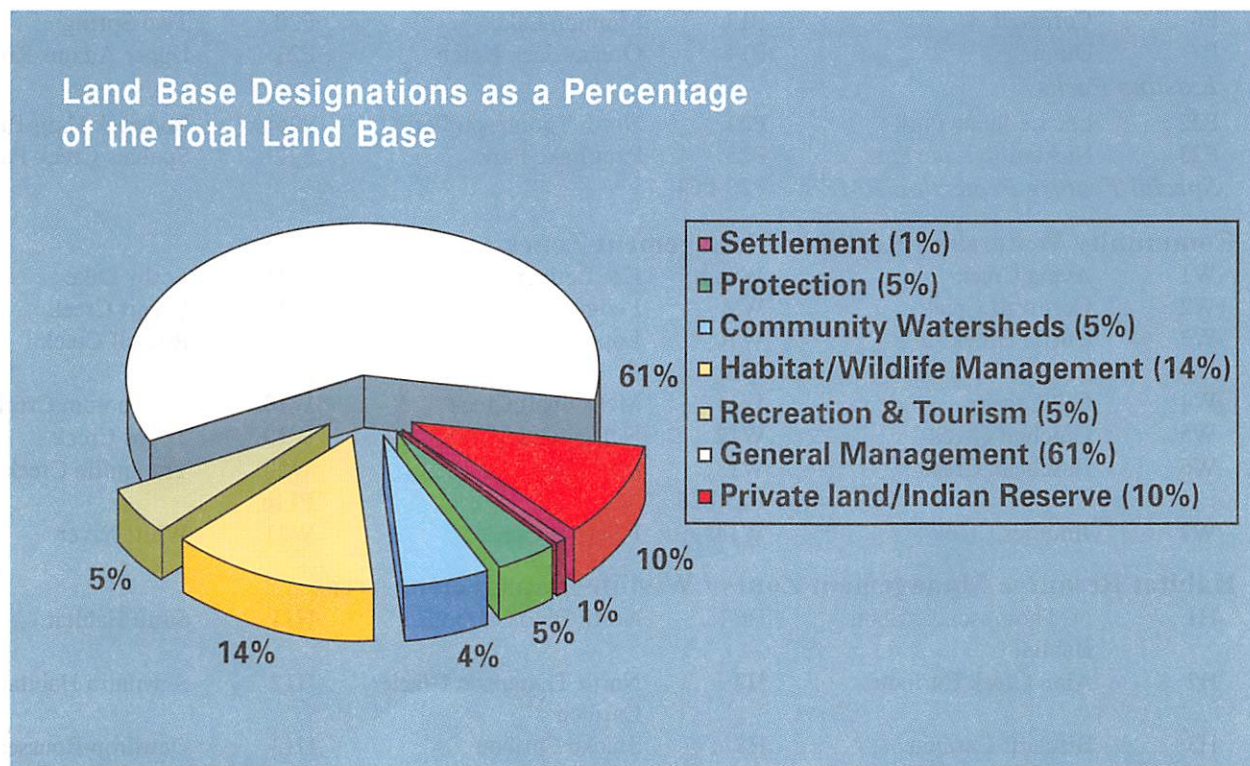
- **existing legislation** including, but not limited to the *Forest Practices Code of BC Act*, the *Federal Fisheries Act*, the *Waste Management Act*, *Agricultural Land Reserve Act*, the *Mineral Tenure Act*, and the *Mines Act*;
- **local level plans*** that may be any of a wide range of local or more detailed planning processes including, but not limited to landscape unit objectives, local resource use plans, coordinated access management plans, and protected area management plans.
- **existing regulations, standards and guidelines**, including but not limited to the Forest Practices Code Operational Planning Regulations, forest and mining road standards and mineral exploration guidelines. There are also many Guidebooks that form an integral part of the Forest Practices Code. Applicable sections of these Guidebooks will be included in prescriptions / approvals where necessary to achieve the intent of the plan. The following symbol (♣) located next to a strategy indicates that a Guidebook exists or is under development.

All local level plans will take strategic direction from the LRMP and may in turn provide valuable feedback to the LRMP monitoring and amendment process.

*Note: In this document local level plans are defined as those which take direction from the Land and Resource Management Plan.

The following types of resource management zones have been established in the Kamloops LRMP:

- General Resource Management
- Settlement
- Protection
- Special Resource Management – Community Watersheds
- Special Resource Management – Habitat / Wildlife Management Areas
- Special Resource Management – Recreation and Tourism



Legend: Kamloops LRMP Resource Management Zone Map

Cabinet-approved resource management zones within the Kamloops LRMP are shown on the adjacent map (Figure 3) and listed in the legend below. The zones have been approved in a hierarchical sequence where two zones were overlapping, so that the zone with the most constraining management requirements is the one depicted on the map. Overlapping linework is shown and distinct numbers have been allocated for each individual zone.

Settlement Resource Management Zones

For a complete list of Settlement Resource Management Zones refer to Section 2.2

Protection Resource Management Zones

P1a,b	Arrowstone	P8	Elephant	P15	Paul Lake Addition
P2	Blue Earth Lakes	P9	Emar	P16a,b	Porcupine Meadows
P3a,b	Bonaparte	P10a,b	Tunkwa	P17	Roche Lake
P4	High Lakes Basin	P11a,b	Lac du Bois Grasslands	P18	Taweel
P5	Clearwater River Corridor	P12	McConnell Lake	P19	Trophy Mountain
P6	Cornwall	P13	Momich Lakes	P20	Two Spring
P7	Dunn	P14	Oregon Jack Notch	P21	Upper Adams River

Existing Parks

P22	Lac Le Jeune Park	P24	North Thompson Park	P26	Roderick Haig-Brown Park
P23	Niskonlith Lake Park	P25	Paul Lake Park	P27	Spahats Creek Park

Special Feature Protection RMZ's P28-P64

Community Watershed Resource Management Zones

W1	Avola Creek	W8a,b	Lac Le Jeune	W15	Posby Lake
W2	Cornwall Creek	W9	Leonie Creek	W16	Resort Creek
W3	Currie Brook	W10,	Lopez Creek	W17	Russell Creek
		P1b			
W4	Gill Creek	W11	McDougall Creek	W18	Skowootum Creek
W5	Guichon Creek	W12	Nelson Creek	W19	Toops Creek
W6	Hascheak Creek	W13,	Paul Lake	W20,	Tranquille Creek
		P15,P25		P11b	
W7	Jimmies Creek	W14a,b	Peterson Creek	W21	White River

Habitat Resource Management Zones / Wildlife Management Areas

H1	N. Thompson Caribou Habitat	H6	North Blue Caribou	H11	Skull Habitat
H2	Alan Creek Caribou	H7	North Thompson Glacier Caribou	H12	Skwilatin Habitat
H3	Bischoff Caribou	H8	Smoke Caribou	H13	Dewdrop-Rousseau WMA
H4	Bone Caribou	H9	Thunder Caribou	H14	Skull Wildlife Management Area
H5	Clemina Caribou	H10	Battle Bluff Habitat		

Recreation and Tourism Resource Management Zones

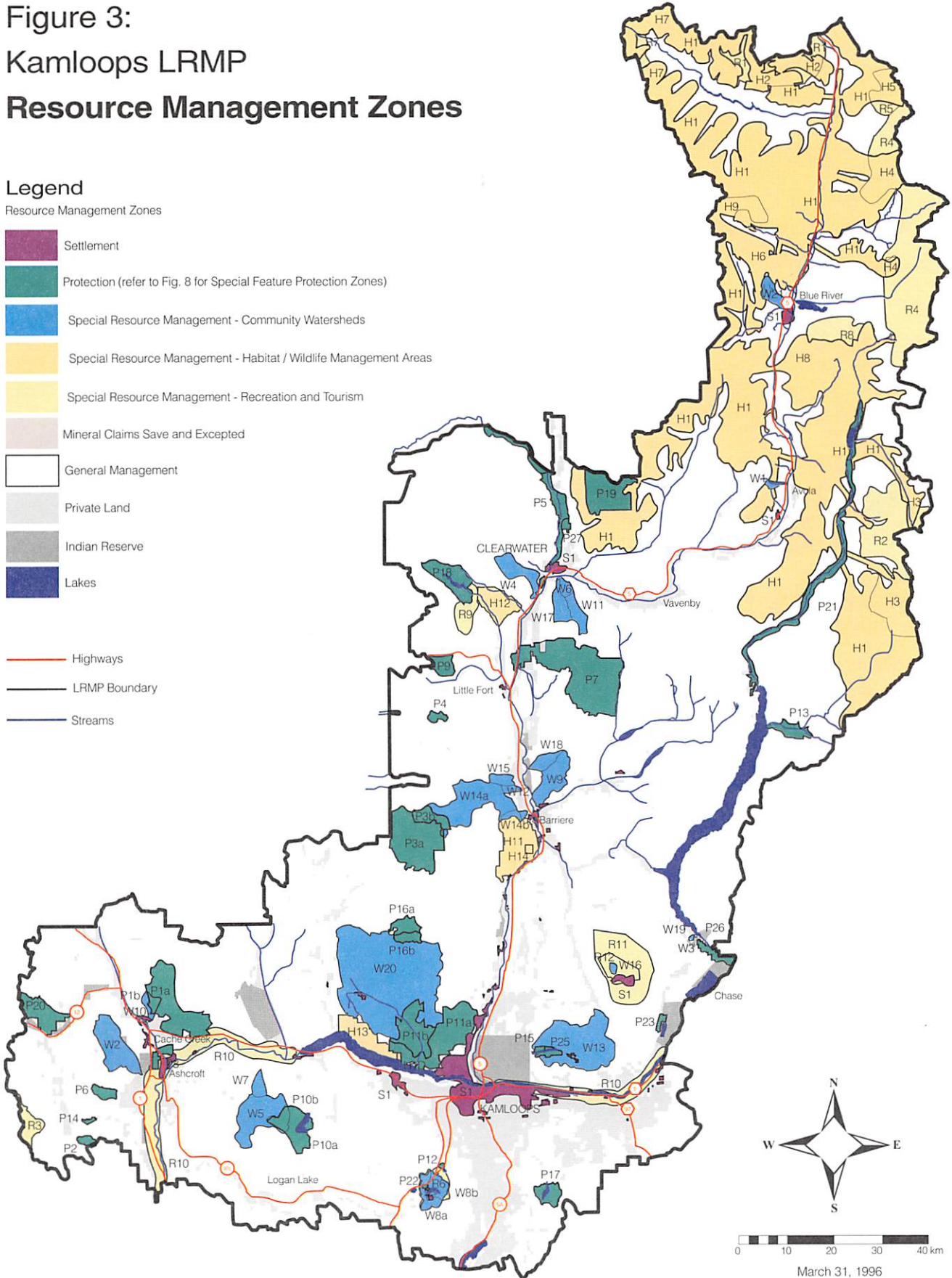
R1,H2	Alan Creek	R5,H5	Clemina	R9	Taweel
R2,H3	Bischoff Lakes	R6,W7	Lac Le Jeune	R10	Thompson Rivers
R3	Blustery	R7,H7	North Thompson Glacier	R11	Tod Mountain
R4,H4	Bone	R8,H8	Smoke	R12	Tod Mountain Controlled Recreation Area

Figure 3:
Kamloops LRMP
Resource Management Zones

Legend

Resource Management Zones

- Settlement
 - Protection (refer to Fig. 8 for Special Feature Protection Zones)
 - Special Resource Management - Community Watersheds
 - Special Resource Management - Habitat / Wildlife Management Areas
 - Special Resource Management - Recreation and Tourism
 - Mineral Claims Save and Excepted
 - General Management
 - Private Land
 - Indian Reserve
 - Lakes
-
- Highways
 - LRMP Boundary
 - Streams



2.1 General Resource Management Zone

This section outlines a basic set of objectives and strategies that apply to all Crown land and resources. For 62% of the LRMP area, referred to as the General Resource Management Zone (refer to Figure 3), these basic objectives and strategies apply. For all other Resource Management Zones, except Protection, this basic set of objectives and strategies are complemented by additional objectives and strategies.

2.1.1 Land Management

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Minimize soil productivity losses. • Minimize off-site impacts due to soil disturbance. 	<ul style="list-style-type: none"> • Implement soil disturbance guidelines for all activities ♣. • Use proper road construction and maintenance procedures ♣. • Address access issues through a local level plan. • Monitor use and ensure compliance with regulations to reduce soil erosion and the spread of noxious weeds that can result from the use of trail systems. 	<p>Area of unreclaimed, unvegetated, roads, landings, trails, power lines, right-of-ways, etc. per sq. km.</p> <p>Rate of compliance with guidelines.(e.g. soil disturbance)</p>

2.1.2 Water Management

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Ensure existence of acceptable levels of water quality and quantity . • Water conservation. • Maintain natural streamflow regime within acceptable limits. • Recognize and protect instream flows for appropriate non-consumptive uses. 	<ul style="list-style-type: none"> • Do not allow bulk water exports and large scale interbasin diversions. • Conduct the appropriate level of watershed assessment* on a priority basis, as listed in Appendix 1. • Upon completion of watershed assessments , carry out appropriate local level planning and implement procedures to rehabilitate negatively impacted watersheds to improve water quality and/or streamflow regimes to a sustainable level. • Monitor water quality and provide all sampling data to common GIS data base while identifying and filling gaps. • Investigate and document repetitive water quality complaints on GIS Base System. • Verify that all appropriate guidelines and legislation are being followed. • Ensure implementation of a referral process to notify all potentially impacted water licensees when development is proposed. • Establish stream flow monitoring and in stream flow requirements on a priority basis. 	<p>Changes in water quality</p> <p>Average seasonal water levels in major water courses and storage facilities.</p> <p>No. of watersheds requiring watershed assessment</p> <p>Management opportunities available.</p> <p>% compliance with relevant legislation, regulations, guidelines and plans</p> <p>Frequency of water shortages in low flow periods</p>

Objectives and strategies for Water Management

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Recognize interaction of groundwater with surface water sources. • Minimize risk to lives and property from flooding and erosion. • Consider water licensing tenure where identified opportunity exists. • Recognize and consider existing water tenures. • Protect aquatic ecosystems. • Recognize and consider the water requirements of wildlife and plants. 	<ul style="list-style-type: none"> • Establish a groundwater aquifer management program. • Implement groundwater monitoring sites. • Use proper road construction, maintenance and deactivation standards♣. • Develop and implement appropriate local level plans for floodplain management. • Identify and consider water tenure opportunities where unlicensed water is still available for licensing within sustainable levels. • Manage work in and about streams to protect aquatic values. 	

2.1.2.1 Riparian Management Areas

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Maintain and/or restore the integrity and function of streamside riparian vegetation to provide for bank and channel stability, long-term supply of large organic debris, suitable stream temperatures and input of nutrients. 	<ul style="list-style-type: none"> • Manage riparian areas, including streams, wetlands and lakes in accordance with the Forest Practices Code and the <i>Kamloops and Clearwater District Lakeshore Management Guidelines</i>, or other applicable management tools or agency agreements. 	<p>% of streambank where riparian vegetation complex is retained</p> <p>% compliance with guidelines</p> <p>Change in riparian ecosystems</p>

2.1.3 Ecosystem Management

The following ecosystem management objectives and strategies apply across the Kamloops LRMP area.

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Maintain and/or enhance ecosystem health as indicated by key species • Maintain viable populations of all species across the landscape within their existing geographic range. • Restore species endangered or threatened by human activities. • Maintain linkages within all landscape units, including forests and grasslands. • Maintain natural stand attributes in managed forests. • Maintain old growth attributes within landscape units. • Maintain and/or enhance a diversity of viable grassland and alpine ecosystems. 	<ul style="list-style-type: none"> • Implement appropriate local level planning to ensure that key habitat elements are maintained within each landscape unit. • Identify and prepare appropriate local level plans for species and habitats listed "red" by BC Environment Conservation Data Centre. • Manage key species as indicators of ecosystem health (e.g. caribou - high elevation stands, ESSF). • Develop ecosystem networks for each landscape unit in the LRMP on a priority basis to be determined by the follow-up committee. • Employ stand-level biodiversity practices such as wildlife tree management. • Encourage disturbance regimes that are similar to natural processes. • Manage grasslands to produce a mosaic of grassland habitat. • Provide special management resources and/or developments, such as fencing in critical or special habitat areas that may be detrimentally impacted. 	<ul style="list-style-type: none"> No. of ecosystems protected Population of critical species Indicators of Ecosystem Health: distribution and numbers Trend of condition studies Forest age class distribution Changes in habitat diversity Occurrence of old growth attributes Change in grassland ecosystem Changes in populations of weed species.

The *Kamloops LRMP Interim Measures for Biodiversity Management* (Appendix 6) apply until such a time as landscape unit plans, which include setting biodiversity objectives, have been completed for the LRMP area.

2.1.3.1 Biodiversity Emphasis Options

LRMP tables provide strategic direction in managing for biodiversity by assigning a recommended biodiversity emphasis option to each landscape unit. A biodiversity emphasis option is a land use management tool for managing biodiversity. These emphasis options only apply to the forested landbase within a landscape unit, and forest sector activities were the primary focus in the LRMP's assignment of preliminary biodiversity emphasis options. Grasslands and alpine areas were not assigned a biodiversity emphasis, and other resource sectors such as range, mining and recreation were not considered at this time..

The Forest Practices Code Biodiversity Guidebook proposes a mechanism for maintaining biodiversity while minimizing the impacts of biodiversity emphasis options on timber supply to no more than 4% of timber harvesting levels over the short and long term. This mechanism involves the assignment of three emphasis options to landscape units: lower, intermediate and higher emphasis. Each option provides different levels of biodiversity and different risks of losing elements of natural biodiversity. The following definitions for emphasis options are extracted from the Forest Practices biodiversity guidebook.

- The **lower** biodiversity emphasis option may be appropriate for areas where other social and economic demands, such as timber supply, are the primary management objectives. This option will provide habitat for a wide range of native species, but the pattern of natural biodiversity will be significantly altered, and the risk of some native species being unable to survive in the area will be relatively high.
- The **intermediate** biodiversity emphasis option is a trade-off between biodiversity conservation and timber production. Compared to the lower biodiversity emphasis option, this one will provide more natural levels of biodiversity and a reduced risk of eliminating native species from the area.
- The **higher** biodiversity emphasis option gives a higher priority to biodiversity conservation but would have the greatest impact on timber harvest. This option is recommended for those areas where biodiversity conservation is a high management priority.

It is also the intent of the LRMP to minimize the impacts of biodiversity emphasis options on other resource sectors, and to undertake analysis with regards to potential impacts on all resource sectors.

Appendix 7 identifies the preliminary assignment of biodiversity emphasis options to each landscape unit. When the District Manager and the Designated Environment Officer establish landscape units and associated objectives as required under the Forest Practices Code, Appendix 7 will provide important input into their decisions.

The following objectives and strategies were developed to monitor the application of landscape unit biodiversity emphasis options.

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> To conserve the diversity and abundance of native species and their habitats throughout the Kamloops LRMP, following upon direction provided by the Forest Practices Code Biodiversity Guidebook. 	<ul style="list-style-type: none"> Assign preliminary landscape unit biodiversity emphasis options in accordance with the Biodiversity Guidebook as well as the procedures and criteria identified by the Table. Limit the impact of landscape unit biodiversity emphasis options to no more than 4% of the level of timber harvesting in the LRMP over the short and long term. Develop tools and indicators to measure: <ul style="list-style-type: none"> -progress towards the conservation of biodiversity -impacts of biodiversity emphasis options on timber supply and other resources. Undertake analysis with regards to the potential impacts of the Biodiversity Guidebook on resource sectors, and how the Guidebook can be best applied at the local level. This is of particular interest to the agriculture / range sector. Task the long-term Follow-up Committee with reviewing the preliminary landscape unit biodiversity emphasis options and associated resource impacts. Preliminary biodiversity emphasis options will either be confirmed or revised to meet the objectives and strategies. 	<ul style="list-style-type: none"> Viable populations of all species Change in the status of threatened and vulnerable species

2.1.4 Grasslands Management

Natural grassland ecosystems are rare in British Columbia and the Kamloops LRMP area contains a significant portion of what does exist within the province. This fragile ecosystem is home to a variety of plant and animal species (some rare and/or unique) and faces increasing pressure from human settlement, agriculture and recreation.

Objective	Strategies	Indicators
<ul style="list-style-type: none"> • Maintain natural grassland ecosystem processes, including all grassland-dependent species. 	<ul style="list-style-type: none"> • Develop Range Use Plans to identify goals and strategies for an area, inventory plant communities, prescribe levels of use, and set a grazing schedule. • Manage grazing use to produce a mosaic of grazing levels, including some ungrazed areas, with linkages between them. • Manage grasslands for a diversity of habitat for grassland-dependent species. • Maintain and/or enhance range condition so most is in good to excellent natural range condition. • Provide special management and/or fencing in critical or special habitat areas that may be detrimentally impacted. • Reduce forest encroachment and density which results from human suppression of natural disturbances. • Accept natural disturbances as a tool for grasslands management. • Develop and implement access plans to reduce motorized access into vulnerable areas and minimize human impact. • Control noxious weeds by implementing noxious weed control plans. • Official Community Plans need to recognize the importance of grasslands conservation in their zoning. 	<ul style="list-style-type: none"> Trend of range condition analysis Change in populations of weed species Total area of grassland ecosystems Measure of flora and fauna diversity Changes in grassland ecosystems

2.1.5. Inland Fisheries

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Maintain a mosaic of angling opportunities within the recreational spectrum (i.e., walk-in lakes, drive-to lakes, trophy lakes). • Maintain or increase the natural production of spawning streams through habitat protection measures (i.e. streamside management) and enhancement activities. • Protect and maintain the genetic diversity of wild fish stocks. 	<ul style="list-style-type: none"> • Plan for a mosaic of angling opportunities through appropriate local level planning. • Continue stocking of lakes as demand, funding and management opportunities dictate. • Monitor forestry practices to ensure that guidelines and management prescriptions are adhered to. • Establish a catalogue of wild fish stocks to be protected. 	<p>Change in management/recreational opportunities</p> <p>Maintenance of fish habitat</p> <p>No. of steelhead on spawning grounds</p> <p>No wild genetic stock lost</p>

2.1.6 Anadromous Fisheries

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Maintain, rebuild or enhance salmon stocks to historic levels. • Achieve a net gain in productive capacity by habitat management. • Maintain and/or enhance steelhead populations. • Maintain the genetic diversity of wild fish stocks. • Avoid irreversible human-made changes to fish-producing habitats. • Maintain the physical and biological diversity of fish habitats. • Optimize the value of commercial, sport, and aboriginal fisheries. • Optimize the non-consumptive values of fishery resources. • Distribute fishery net benefits in a fair and equitable manner. 	<ul style="list-style-type: none"> • Reduce fish exploitation rates to long-term sustainable levels (strategy applies beyond LRMP boundaries). • Ensure adequate instream flows to maintain fish stocks. • Enhance stocks through specific projects. • Establish a catalogue of wild fish stocks to be protected. • Maintain watershed integrity and stability through appropriate local level planning, management practices and rehabilitation. • Protect streamside and riparian areas as per strategies noted in section 2.1.2.1. • Restore degraded stream habitat through bank stabilization, revegetation, and other stream improvements. • Monitor compliance with and effectiveness of environmental standards and guidelines. 	<p>Escapement levels</p> <p>Habitat capacity</p> <p>Catch levels</p> <p>No. wild genetic stock lost</p> <p>Change in water quality</p> <p>Rate of compliance with environmental standard & guidelines</p>

2.1.7 Tourism

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • View tourism as an industry with resource needs. • Maintain and enhance the present diverse range of tourism opportunities and experiences that exist within the LRMP area. • Ensure the continued existence of a quality experience in areas used for commercial tourism. 	<ul style="list-style-type: none"> • Identify and provide opportunities for use of Crown land suitable for future development of resort and wilderness tourism operations. • Manage levels of use to maintain the quality of the experience and the natural environment. • Use appropriate local level planning to manage access in a way that ensures a marketable tourism experience. • Use appropriate local level planning to mediate conflict between user groups. 	<p>Visitor days</p> <p>No. of back-country developments</p>

2.1.8 Recreation

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Maintain or enhance opportunities for a diverse range of recreational values and uses across the biophysical settings of the Kamloops LRMP area. • Maintain and enhance ecological integrity in areas subject to resource impacts from recreational use. 	<ul style="list-style-type: none"> • Use appropriate local level planning to identify small, special features such as recreation sites, trails and interpretive forest sites and develop site specific practices which recognize these features. • Use appropriate local level planning to address the impact of recreational activity on ecological integrity, for example wildlife disruption, damage to plant communities and water quality. • Appropriate local level planning must consider the difference between the environmental impact of snowmobiles and wheeled ATV's when zoning for regulation of motorized vehicle use. 	<p>No. of recreational user days</p> <p>Amount of site disturbance of natural grasslands due to recreational use.</p>

2.1.9 Agriculture

The following table outlines the objectives and strategies of general management for agricultural lands in the LRMP.






With regard to Agricultural Land Reserve, all lands designated as ALR have been mapped in the LRMP (see Figure 12 on following page). There will be cases where applications will be made for an "extension of holding" onto Crown ALR land. When this occurs, the application will be evaluated on its own merits to weigh the values at issue, including an on-the-ground assessment of the area in question. Where the application is within a Protection or Community Watershed RMZ, strict designations and provincial policy will dictate the extent to which agricultural use will be permitted in these land use zones. Extension of holding may or may not be permitted in these zones, depending on the objectives and characteristics of each zone.

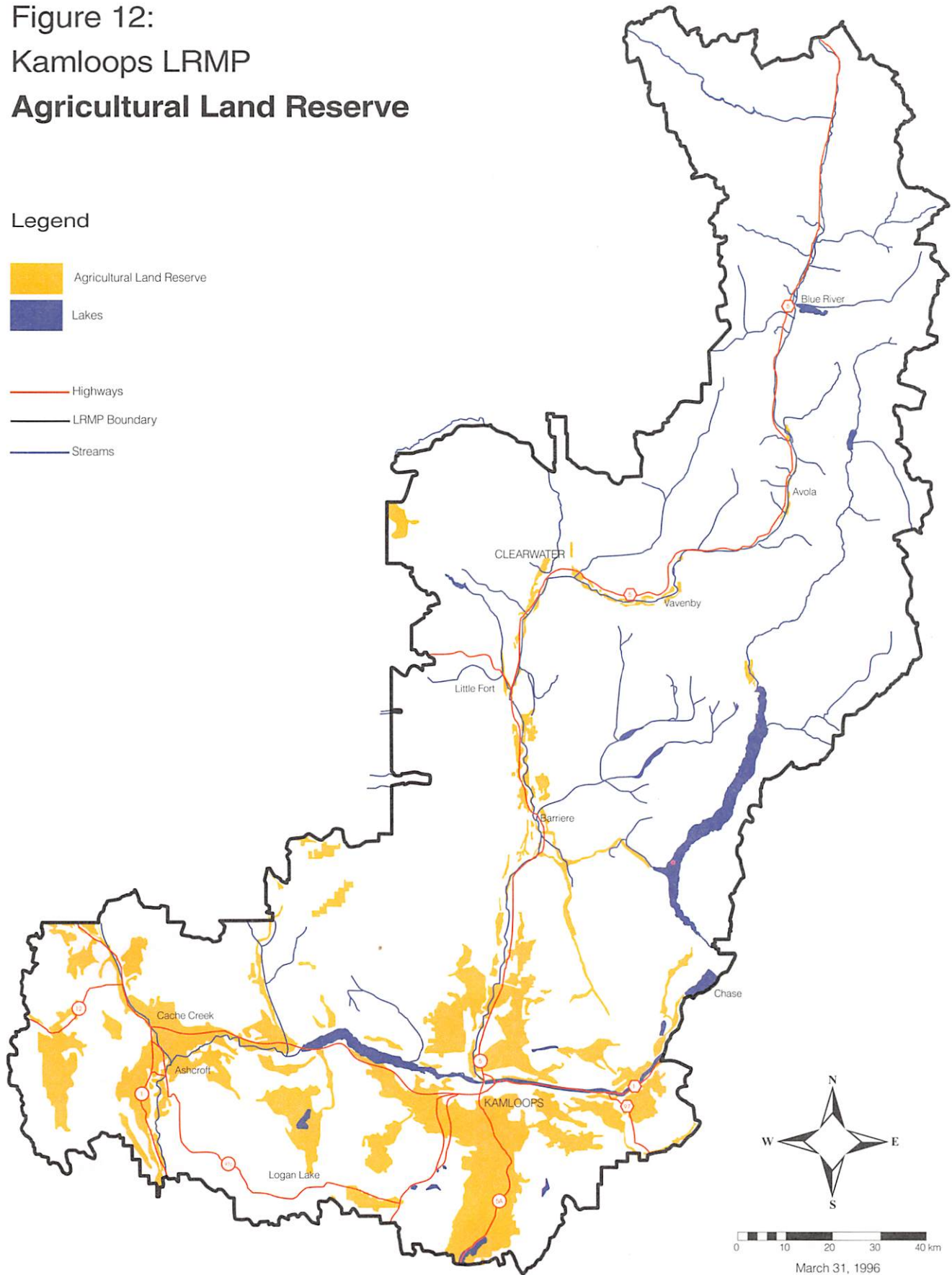
Objectives and Strategies for Agriculture Management

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Provide opportunities for growth and expansion of the agriculture, fisheries and food production industries. • Maintain and/or enhance industry access to and use of Crown resources including land, and water. • Maintain and/or enhance livestock grazing opportunities. • Encourage the adoption of sustainable agricultural practices. • Promote land and water stewardship programs to manage for other resource values. 	<ul style="list-style-type: none"> • Support the purpose and intent of the Agricultural Land Reserve (ALR). • Consider opportunities for the conversion of high quality crown land to agricultural use through existing referral processes which consider highest and best use. • Develop a target level of AUMs for the plan area. • Apply intensified integrated resource management and enhanced resource development for grazing. • Promote conservation farming techniques to maintain and enhance water quality and soil productivity and to reduce soil erosion. • Support the Code of Agricultural Practice for Waste Management. • Encourage the agri-food sector to manage for other values such as wildlife habitat, biodiversity and water quality 	<ul style="list-style-type: none"> ALR (ha) # of hectares under cultivation Change of Animal Unit Months (AUMs) # of agricultural Crown land alienations # of conversions and renewals Change in no. of cattle, sheep and ranches Water licences / volume / area Compliance monitoring

Figure 12:
Kamloops LRMP
Agricultural Land Reserve

Legend

-  Agricultural Land Reserve
-  Lakes
-  Highways
-  LRMP Boundary
-  Streams



2.1.10 Range

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Maintain and/or enhance sustainability, biodiversity and long-term productivity on Crown rangelands. • Achieve good to excellent range condition on most areas for livestock and/or wildlife. • Authorize and manage for sustainable levels of livestock grazing on Crown rangelands and encourage intensive management. • Minimize tree/grass/cattle conflicts through integrated management practices. 	<ul style="list-style-type: none"> • Develop Range Use Plans to identify goals and strategies for an area, inventory plant communities, prescribe levels of use, and set a grazing schedule♣. • Implement research findings on the impacts of grazing on natural ecosystems. • Control noxious weeds by implementing Noxious Weed Control Plans. • Restore areas detrimentally impacted by grazing. 	<p>Vegetation species present or absent</p> <p>Measure of flora and fauna diversity</p> <p>Trend of range condition analysis</p> <p>Changes in rangeland ecosystems</p> <p>Changes in populations of weed species.</p>

2.1.11 Minerals

Objectives and strategies for the management of mineral resources are shown in the following table. Mineral exploration and mine development are allowable land uses in all resource management zones outside of Protection RMZ's (and where prohibited by law). However, it is recognized that not all areas are equally likely to be the focus of exploration and development for the period of this plan (10 years). Assuming current conditions prevail, areas of high potential are likely to see more mineral exploration activities and stand a greater chance of having new mines developed than areas of low potential.

Figure 13a on the following page depicts estimated potential for metallic mineral deposits (eg. gold, silver, copper, molybdenum, lead, zinc). High potential areas are shown in green, moderate potential in yellow and low potential in grey. The Kamloops LRMP area currently has two large producing metal mines: Afton (copper, gold) near Kamloops and Highland Valley (copper, molybdenum) near Logan Lake.

Figure 13b depicts estimated potential for industrial minerals (eg. dimension stone, gypsum, limestone, silica, zeolite). High potential areas are shown in green, moderate potential in yellow and low potential in grey. The Kamloops LRMP area currently produces clay, dimension stone, Fuller's earth, limestone, zeolite and silica. Aggregate (sand and gravel) is also produced in the area but is not included in this estimate of industrial mineral potential.

No estimates for coal potential have been made, however the Hat Creek valley hosts an undeveloped world-class coal deposit containing approximately 5 billion tonnes of coal.

Objectives and Strategies for Minerals

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Encourage new mining industry* opportunities and development which provides for local employment and investment. • Strive for diversified and enhanced industrial mineral industries, including value-added opportunities. • Maintain or enhance access to land for mineral** exploration and development 	<ul style="list-style-type: none"> • Implement the Provincial Mineral Strategy in the Kamloops LRMP. • Ensure that land use designations support mineral investment confidence. • Provide input to municipal planning (OCPs, bylaw referrals) to maintain sand and gravel mining opportunities. • Use appropriate local level planning to encourage long-term access to subsurface resources and compatibility of surface uses. 	<ul style="list-style-type: none"> Value of annual exploration Value of mineral production by commodity Industry profile (no. of producers, employees, commodities) Trends in mining reserves

* Mining industry includes: exploration, mining, transportation, processing, consultants and equipment suppliers.

** According to the *Mineral Tenure Act*, a mineral is any "ore of metal and every natural substance that can be mined"

Figure 13A:
 Kamloops LRMP
 Metallic Mineral Potential

Legend

- Highest Potential
- Relative Ranking of Land Area
One Third of Area in each Category
- Lowest Potential
- Highways
- LRMP Boundary
- Streams

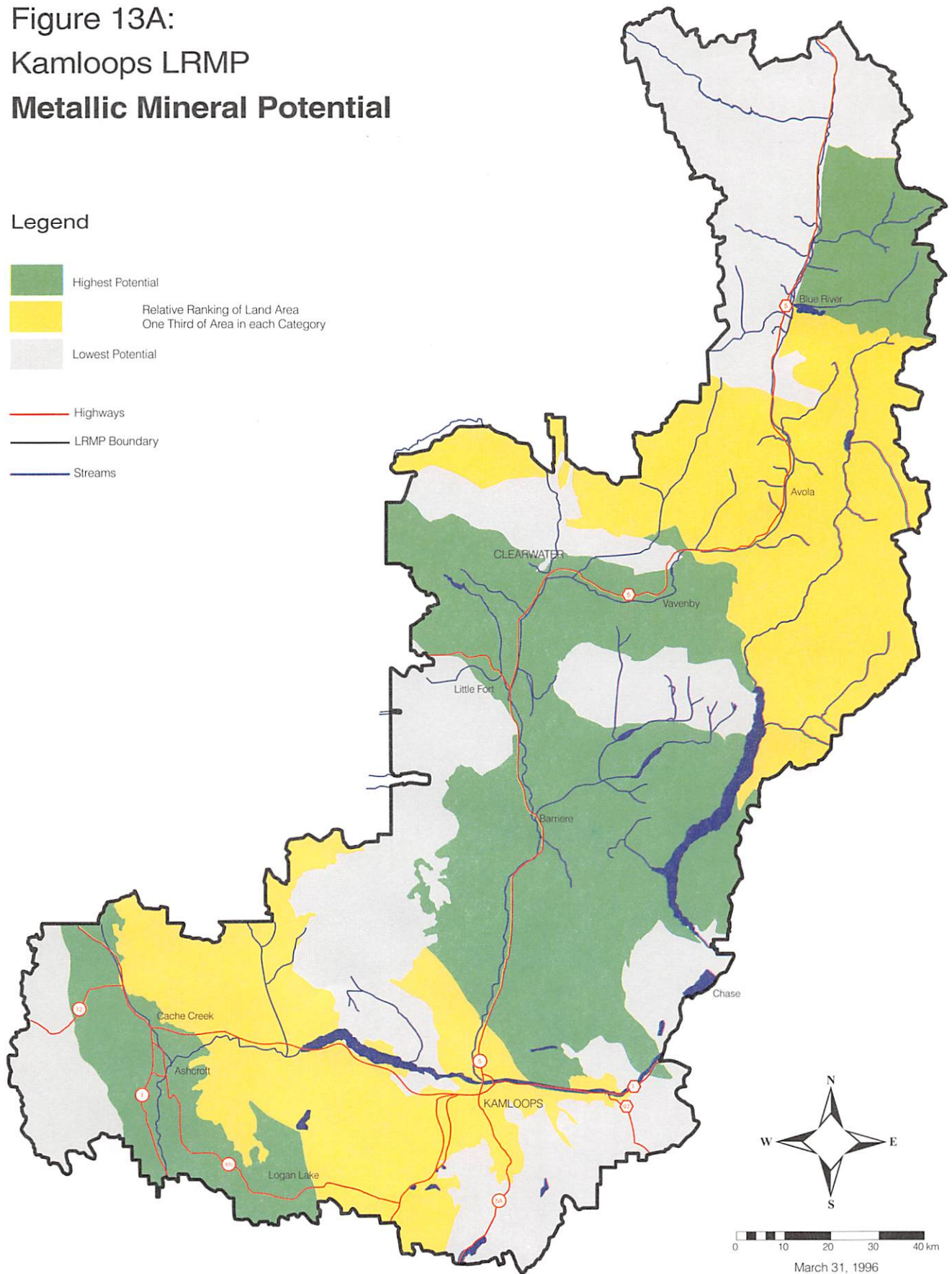
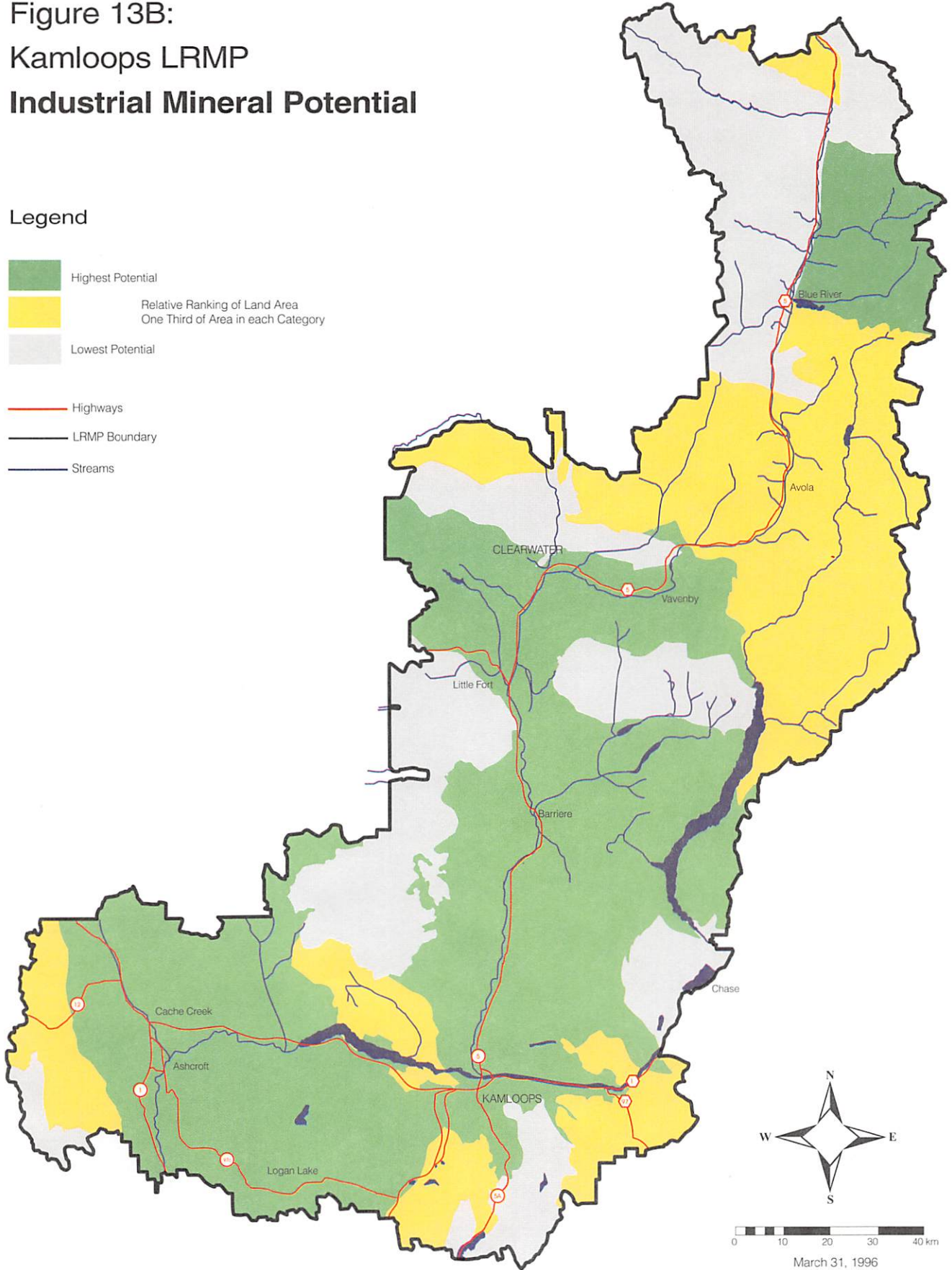


Figure 13B:
 Kamloops LRMP
 Industrial Mineral Potential

Legend

- Highest Potential
- Relative Ranking of Land Area
One Third of Area in each Category
- Lowest Potential
- Highways
- LRMP Boundary
- Streams



Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Maintain or enhance access to Crown land for public mineral collecting and recreational placer activity. • Encourage geoscience inventories for mineral investment and land use decisions. 	<ul style="list-style-type: none"> • Monitor and review lands closed to mineral and placer exploration (e.g. no-staking-reserves) and recommend amendments. • Visual quality and biodiversity objectives do not preclude mine development activities. However, every effort should be made to meet visual quality and biodiversity objectives. • Conduct government-sponsored geological surveys, mineral deposit research, and exploration incentive programs. • Ensure rehabilitation of mineral exploration and site access disturbances. 	<p>No. of annual exploration projects proposed /completed</p> <p>No. and proportion of mineral occurrences by land designation.</p> <p>Change in area available for mineral exploration by mineral potential category</p> <p>Tenure: area of tenure by land designation (ha); annual change in area under tenure by category; number of tenure holders.</p> <p>Change in area available for mineral exploration by mineral potential category</p> <p>Tenure: area of tenure by land designation (ha); annual change in area under tenure by category; number of tenure holders.</p> <p>Amount of land reclaimed annually as % of land disturbed but no longer actively explored</p>

2.1.12 Wildlife

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Ensure habitat needs of all naturally occurring wildlife species are provided for. Special attention will be paid to those red- and blue- listed species, as defined by BC Environment, and species designated as regionally important (e.g. Mule Deer). • Manage wildlife populations to meet both consumptive and non-consumptive demands within IRM goals and land capability. • Maintain hunting opportunities. 	<ul style="list-style-type: none"> • Manage forests for a diversity of age classes and forest stand structures across landscape units. • Ensure that critical wildlife habitat is identified and managed appropriately through local level planning. • Conduct habitat improvement projects. • Ensure linkage between critical habitat areas, preferably incorporating them within an ecosystem network. • Accommodate a mosaic of hunting opportunities through appropriate local level planning. 	<p>Condition of critical wildlife habitat</p> <p>Maintenance of rare habitats and species</p> <p>Change in hunting opportunity</p>

2.1.12.1 Critical Deer Winter Range

Many ungulate management objectives are met through normal practices in the LRMP area, for example, through selective harvesting in the dry Interior Douglas fir zones. Certain critical habitat areas need to be identified to ensure that habitat values are maintained. These are shown in Figure 4.

Objective	Strategies	Indicators
<ul style="list-style-type: none"> • Maintain or enhance forage production and habitat requirements in critical deer winter range. 	<ul style="list-style-type: none"> • Disperse the timber harvest throughout the winter range and spread it out evenly over the rotation. • Maintain at least 25% of forested area in thermal cover. Link thermal cover units together with suitable travel corridors, especially mature Douglas fir vets on ridges. • Practice uneven aged management wherever possible. • Apply clearcuts smaller than 5 hectares where uneven aged management cannot be practised. • Ensure maintenance of browse species such as <i>Coenothus</i>, wild rose and saskatoon through range management practices. • Pursue mixed forest management, with similar species distribution to natural stands (including deciduous). • Establish access management guidelines. • Incorporate management objectives for Critical Deer Habitat into local level planning for the area. 	<p>Area (ha) of critical deer winter range available in good condition</p>




2.1.12.2 Critical Moose Winter Range

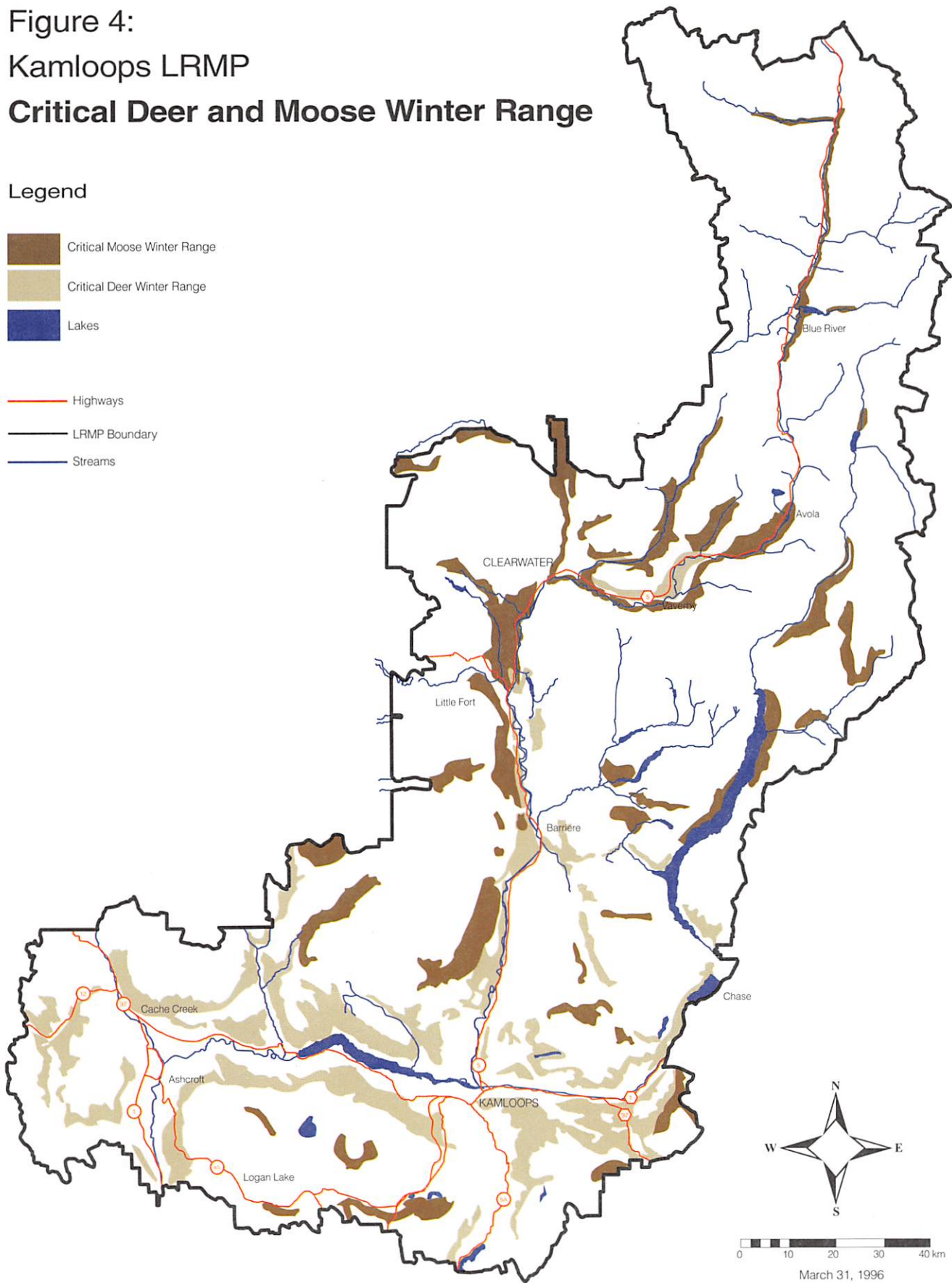
Objective	Strategies	Indicators
<ul style="list-style-type: none"> • Maintain thermal and visual cover for moose, and enhance browse production. 	<ul style="list-style-type: none"> • Maintain suitable forest cover attributes with respect to thermal cover and forage production. • Ensure adequate forage is maintained during silvicultural activities (brushing and weeding, stand tending). • Provide visual screening of swamps and openings along highways, secondary roads, and main forestry roads. • Pursue mixed forest management with similar species distribution to natural stands (including deciduous). • Ensure grazing management practices that maintain browse species such as red osier dogwood and willow. • Establish access management guidelines. • Incorporate management objectives for critical moose habitat into local level planning for the area 	<p>Area (ha) of critical moose winter range available in good condition</p>

Figure 4:
 Kamloops LRMP
 Critical Deer and Moose Winter Range

Legend

-  Critical Moose Winter Range
-  Critical Deer Winter Range
-  Lakes

-  Highways
-  LRMP Boundary
-  Streams



2.1.13 Timber

Objective	Strategies	Indicators
<ul style="list-style-type: none"> Maintain and/or enhance the sustainable supply of timber. 	<ul style="list-style-type: none"> Reforest all backlog Not Sufficiently Restocked sites by the year 2000. Rehabilitate previously disturbed forest land (e.g. old landings and roads). Enhance timber production through prompt reforestation and management practices to increase stand yields. Encourage utilization of pulp components of stands that are currently being harvested. Convert current pulp quality stands to new forests that will produce merchantable timber. 	<ul style="list-style-type: none"> Hectares of problem forest types converted Hectares of land managed intensively Mean annual increment Standing inventory (m3) No. of ha rehabilitated

2.1.14 Visually Sensitive Areas

Visually sensitive areas are viewsheds or viewscapes visible from communities, public use areas and travel corridors (including roadways and waterways), or viewpoints identified through a variety of referral or planning processes, where the maintenance of visual quality is important. The majority of the visually sensitive areas within the Kamloops LRMP were inventoried as of October, 1994 and are shown in Figure 5.

2.1.14.1 Resource Management Objectives

The primary objective of management in Visually Sensitive Areas is to ensure that the levels of visual quality expected by society are achieved on Crown land in keeping with the concepts and principles of integrated resource management.

Visual quality objectives (VQO's) have been identified within visually sensitive areas for individual viewscapes or geographic areas, to reflect different degrees of acceptable visual impact, based on a variety of factors such as viewing conditions, scenic quality, numbers of viewers, and social concerns. VQO's apply to forested as well as non-forested land (eg. grasslands, alpine areas and wetlands), and are based on the Ministry of Forest's inventory and standards for Visual Landscape Management (the term used for the identification, assessment and management of visual resources on all Crown land).

The four management categories of VQO's in the Kamloops LRMP are as follows:

Preservation - where alterations result in no visible change;

Retention - where alterations are not visually apparent and line, form, colour and texture of the characteristic landscape are repeated.

Partial Retention - where alterations remain visually subordinate to the characteristic landscape and form, colour, and texture are repeated to blend with dominant elements; and,

Modification - where alterations may dominate the characteristic landscape but must borrow from natural line and form to such an extent that they are comparable to natural occurrences.

Areas outside the identified visually sensitive areas in the Kamloops LRMP are managed for landscape objectives as follows: alterations may dominate the characteristic landscape but must borrow from natural line and form to such an extent and on such a scale that they are comparable to natural occurrences.

2.1.14.1 Resource Management Strategies

Resource development is permitted and encouraged within visually sensitive areas consistent with achieving Visual Quality Objectives.

Timber harvesting within visually sensitive areas will be managed in accordance with the Forest Practices Code♣ and the Kamloops LRMP *Visual Quality Guidelines* (Appendix 8). VQO's will be integrated into planning for forest resource development through local level plans.




A public review process will be set in place to establish, monitor and review Visual Quality Objectives and resources within the Clearwater and Kamloops Forest Districts.

Management of visual quality by non-timber uses will be managed in accordance with the Forest Practices Code and various other provincial guidelines for visual quality, such as those found in the Ministry of Energy, Mines and Petroleum Resource's *Guidelines for Mineral Exploration* and the Ministry of Transportation and Highways *Manual of Aesthetic Design*.

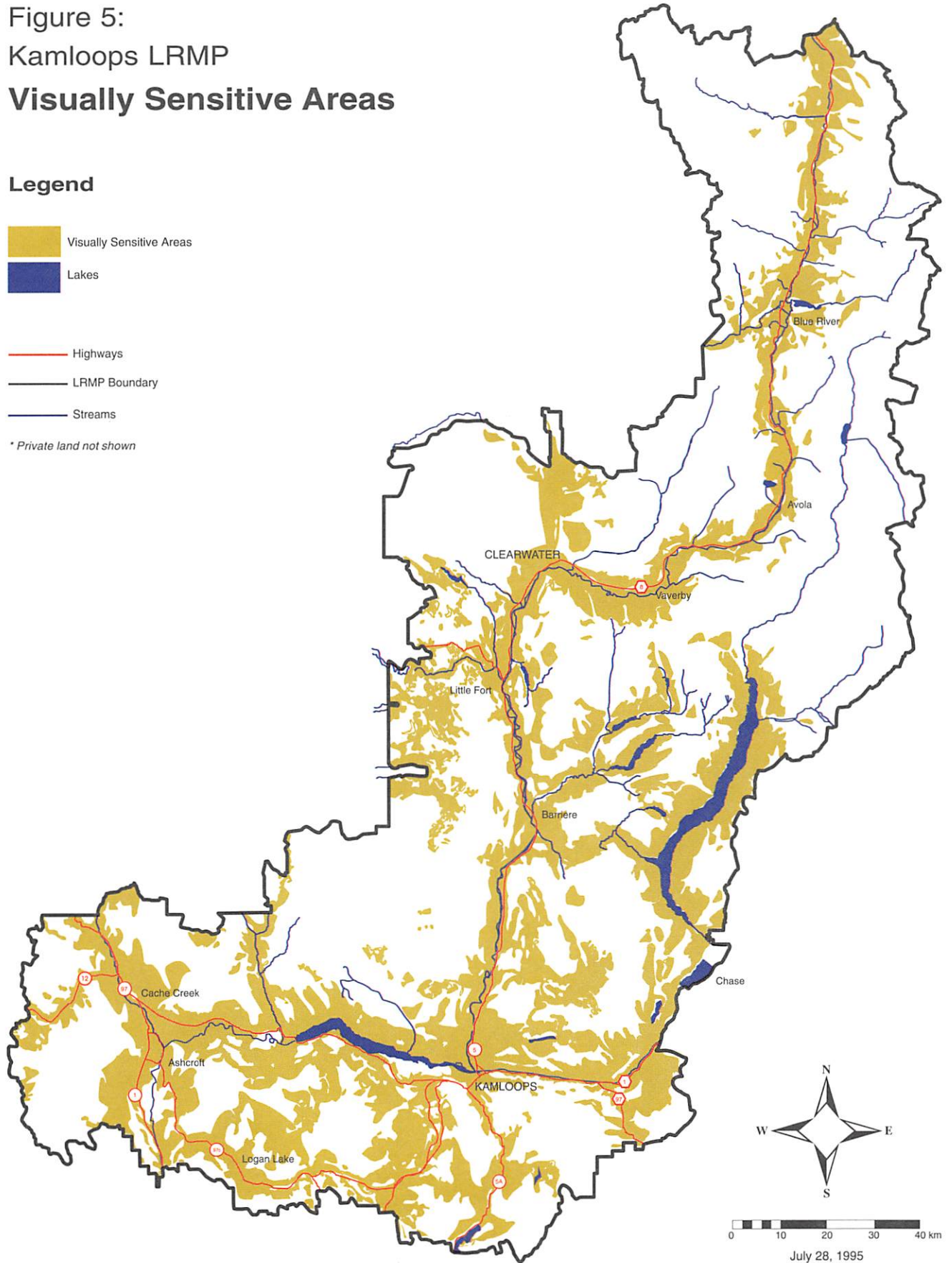
Figure 5:
Kamloops LRMP
Visually Sensitive Areas

Legend

-  Visually Sensitive Areas
-  Lakes

-  Highways
-  LRMP Boundary
-  Streams

* Private land not shown



2.1.15 Heritage Trails

Objective	Strategies
<ul style="list-style-type: none"> Identify, restore, and manage provincially significant Heritage Trails. 	<ul style="list-style-type: none"> Locate and map trail locations, and seek appropriate designation. (e.g. the Hudson's Bay Company Brigade Trail) Protect heritage values through application of a heritage management plan or appropriate local level plan.

2.1.16 Cultural and Heritage Sites

An Archaeological Overview Assessment carried out by the Archaeology Branch of the Ministry of Small Business, Tourism and Culture in 1994 is shown in Figure 6. It classifies land as having a high, medium or low probability of containing archaeological sites. Policy requires Archaeological Impact Assessments in areas where conflicts may arise between archaeological resources and a proposed resource development. All archaeological sites pre-dating 1846 are protected under the *Heritage Conservation Act, 1992*.

A majority of the First Nations bands in the LRMP area are in the process of compiling archaeological data for their own uses. The level to which this information will be shared with governments and other third parties is yet to be determined.

Objectives	Strategies
<ul style="list-style-type: none"> To protect archaeological sites in the LRMP. 	<ul style="list-style-type: none"> Undertake archaeological assessments in all High and Medium Potential areas identified in the Archaeological Overview Assessment. As part of the archaeological impact assessments, undertake selective impact assessments of Low Potential areas to verify the accuracy of the Overview. Present the Overview to the public and local First Nations and seek feedback.

2.1.17 Traditional Native Land Use

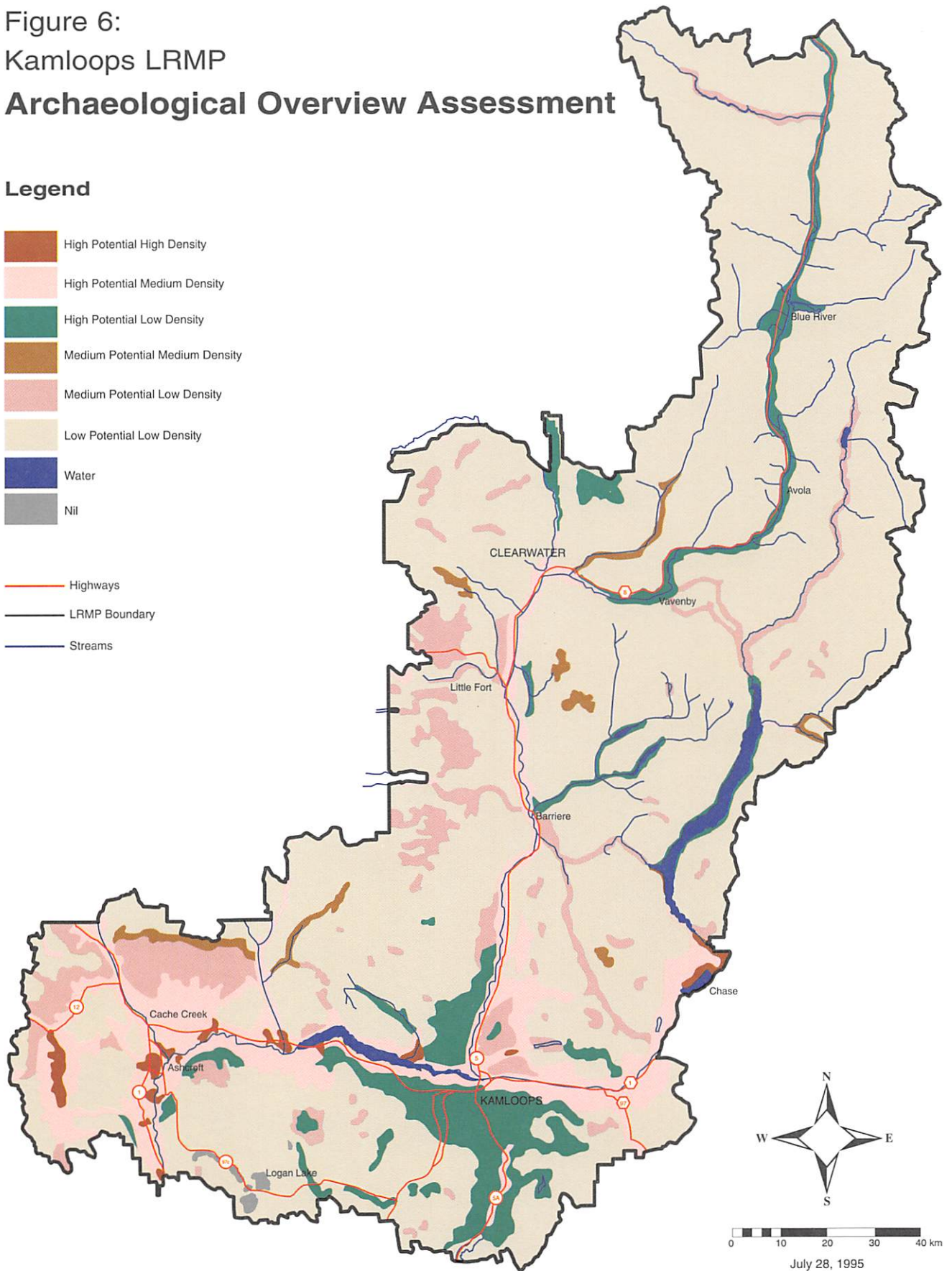
A majority of First Nations bands in the LRMP area are in the active process of compiling traditional and economic land use data for their own use. The level to which this information will be shared with governments and other third parties is yet to be determined.

Figure 6: Kamloops LRMP Archaeological Overview Assessment

Legend

- High Potential High Density
- High Potential Medium Density
- High Potential Low Density
- Medium Potential Medium Density
- Medium Potential Low Density
- Low Potential Low Density
- Water
- Nil

- Highways
- LRMP Boundary
- Streams



2.2 Settlement Resource Management Zones

Settlement Resource Management Zones are areas proposed for settlement use of Crown lands as outlined in an Official Community Plan, Crown Land Plan or an LRMP. The principal uses of these areas are residential, commercial, industrial, agricultural, and institutional. They are primarily planned and managed by local governments under the *Municipal Act*.

Settlement Resource Management Zone (RMZ) boundaries are drawn from existing community, settlement and municipal plan boundaries. These areas are generally private land, with some Crown land included.

There are numerous small communities and private lands not designated as Settlement RMZs. These private lands remain under the jurisdiction of regional governments and are not addressed in this plan. Also included in this category are lands identified for recreational lots in the Thompson Nicola Regional District Lakes Study Plan. Applications for development in these areas are approved through the normal referral processes, where the designation must be consistent with the LRMP.

Settlement Resource Management Zones in the Kamloops LRMP are shown in Figure 7 and listed in the table below.

Ashcroft	Campbell Creek	Lac Le Jeune	Paul Lake
Ashcroft Manor	Cherry Creek	Logan Lake	Pinantan
Avola	City of Kamloops	Louis Creek	Pritchard
Barriere	Clearwater	McLure	Savona
Blackpool	Duck Range	Martin Prarie	Six Mile
Blue River	East Clearwater	Mesa Vista	Sullivan(Knouff)Lake
Boston Flats	Heffley Creek	Monte Creek	Sunshine Valley
Cache Creek	Knutsford	North of Heffley Creek	Vinsula/Black Pines

2.2.1 Resource Management Objectives and Strategies

The objectives for Settlement Resource Management Zones are to:

- manage land to meet the objectives set out in approved community land use plans; and,
- provide Crown land where it is identified in Official Community Plans for community and industrial development.

Resource development is permitted and encouraged in this Resource Management Zones as long as the objectives outlined in the following table are achieved. Objectives and strategies outlined under the General Management Zone also apply within the settlement zones, as base management guidelines.

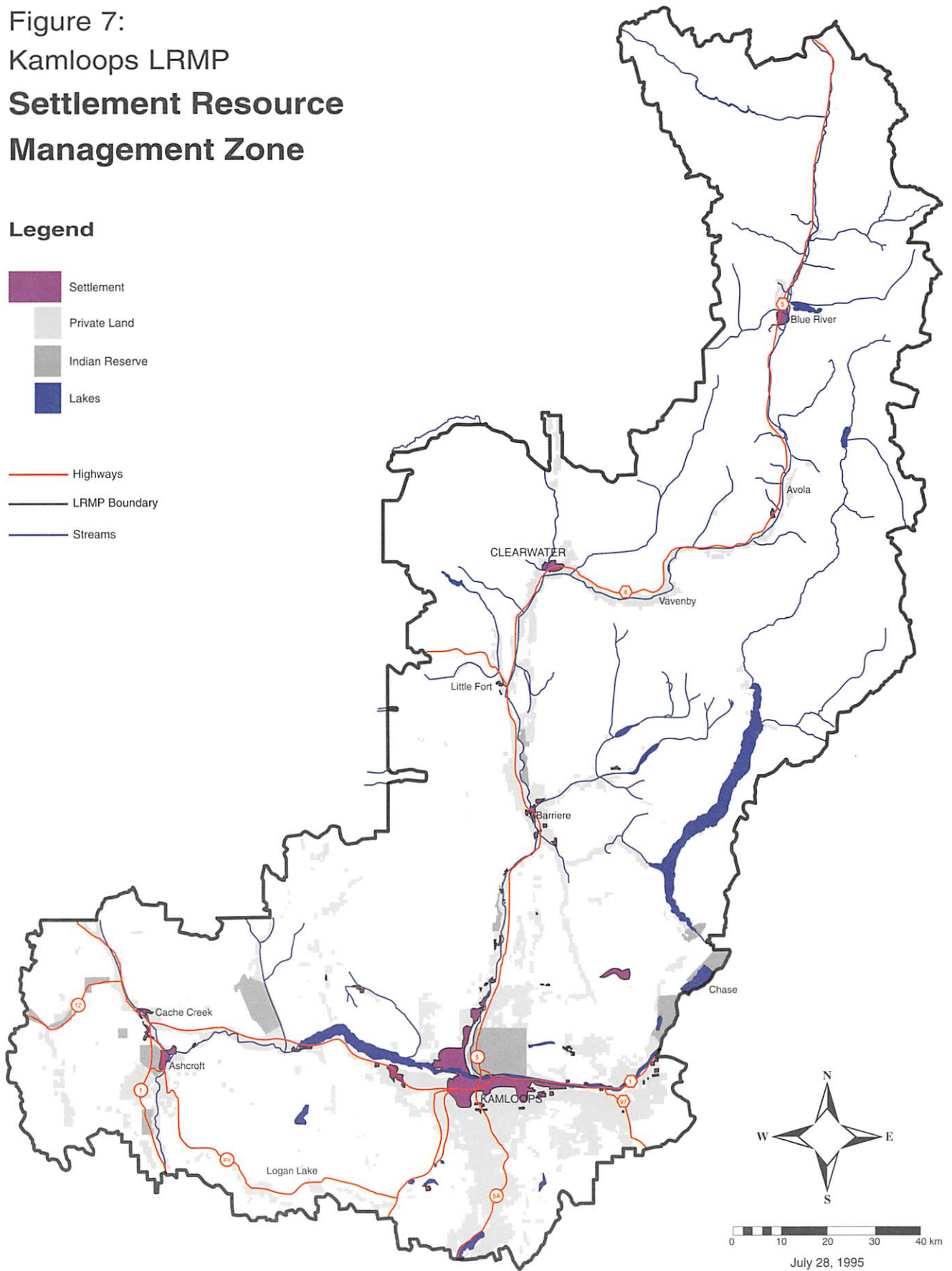
Objectives and strategies for Settlement RMZs

Objectives	Strategies
<ul style="list-style-type: none">• Manage land within community growth boundary to meet the objectives set out in approved community land use plans.• Provide Crown land where it is identified in Official Community Plans for community and industrial development.	<ul style="list-style-type: none">• Agencies will encourage community expansion to occur within designated community growth boundaries.• Local government will be encouraged to develop Official Community Plans where they do not already exist.• Resource development within community and industrial growth boundaries should be designed to accommodate future development potential.• Preference should be given to partial cutting systems for forest harvesting.• Appropriate agencies will consult with local government. Crown resource management will be consistent with approved settlement plan zoning. Local government approval is not required for the renewal of existing tenures.

Figure 7:
 Kamloops LRMP
**Settlement Resource
 Management Zone**

Legend

- Settlement
- Private Land
- Indian Reserve
- Lakes
- Highways
- LRMP Boundary
- Streams



2.3 Protection Resource Management Zones

Protection Resource Management Zones are areas that have been identified for their natural, cultural, heritage and/or recreational values. With the technical assistance of the Regional Protected Areas Team, the LRMP table used the Protected Areas Strategy as a guide in the selection of these zones and in planning for their management.

Protection Resource Management Zones in the Kamloops LRMP area are shown in Figure 8 and are listed in table below. Wells Gray Park is not within the LRMP area, and not shown on the map, but this park forms an integral part of the regional protected areas system.

Protection Resource Management Zones

P1a,b	Arrowstone	P8	Elephant	P15	Paul Lake Addition
P2	Blue Earth Lakes	P9	Emar	P16a,b	Porcupine Meadows
P3a,b	Bonaparte	P10a,b	Tunkwa	P17	Roche Lake
P4	High Lakes Basin	P11a,b	Lac du Bois Grasslands	P18	Taweel
P5	Clearwater River Corridor	P12	McConnell Lake	P19	Trophy Mountain
P6	Cornwall	P13	Momich Lakes	P20	Two Spring
P7	Dunn Peak	P14	Oregon Jack Notch	P21	Upper Adams River

Existing Parks

P22	Lac Le Jeune Park	P24	North Thompson Park	P26	Roderick Haig-Brown Park
P23	Niskonlith Lake Park	P25	Paul Lake Park	P27	Spahats Creek Park

Special Feature Protection RMZ's

P28	Adams Lake	P41	Finn Creek	P53	Oregana Creek Old Growth
P29	Banana Island	P42	Greenstone Mountain	P54	Painted Bluffs
P30	Bear Creek Flume	P43	Harbour-Dudgeon Lakes	P55	Poplar Point
P31	Bedard Aspen	P44	Harry Lake Aspen	P56	Pritchard Riparian
P32	Blue River Black Spruce	P45	Jensen Island Oxbows	P57	Pyramid Creek Falls
P33	Blue River Pine	P46	Lac Le Jeune Lakeshore	P58	Six Mile Hill
P34	Buse Lake	P47	Monte Creek Riparian	P59	Skookum Hoodoos
P35	Caligata Lake	P48	Mt. Savona	P60	Spillman Beaches
P36	Chu Chua Cottonwoods	P49	Mud Lake Delta	P61	Thompson Bend
P37	Deadman Hoodoos	P50	N. Thompson Islands	P62	Tsintsunko Lakes
P38	Eakin Creek Canyon	P51	N. Thompson Oxbows (East)	P63	Walhachin Oxbow
P39	Eakin Creek Floodplain	P52	N. Thompson Oxbows (West)	P64	Wire Cache Wetlands
P40	Epsom				

This section recommends appropriate management categories for each Protection RMZ, as well as intended objectives and strategies. However, further detailed objectives and strategies for each Protection RMZ will be decided by a local level planning process, involving stakeholders and relevant government agencies. Criteria for local level planning processes are described in Section 3.2

2.3.1 Resource Management Objectives and Strategies

The overall objective of Protection Resource Management Zones is to protect viable, representative examples of British Columbia's natural diversity and recreational opportunities and to protect special natural, cultural heritage and recreational features.

Logging, mining and energy exploration and development will not be allowed to occur in Protection RMZs. However many other existing activities will continue to be allowed, subject to the management plan for each RMZ. The planning and management of the new protection resource management zones will be carried out in a cooperative manner by BC Parks and other agencies, where appropriate. Local level planning processes will develop the management plans for individual Protection RMZs, consistent with the objectives and strategies outlined in the following pages, and will encourage the involvement of all parties with a key interest or stake in the plan.

It is important to note that the establishment of these protected areas should not negatively impact resource development activities on the adjacent landbase. For example, mineral exploration and mine development can proceed adjacent to a protected area, subject to existing regulations and standards.

There are five different management categories for Protection RMZs, as outlined in *A Protected Areas Strategy for BC*: strict preservation; wilderness; cultural and heritage sites; natural environment-based outdoor recreation; and intensive recreation and tourism sites. Each Protection RMZ has a unique combination of one, some or all of these categories, as well as its own set of specific objectives and strategies.

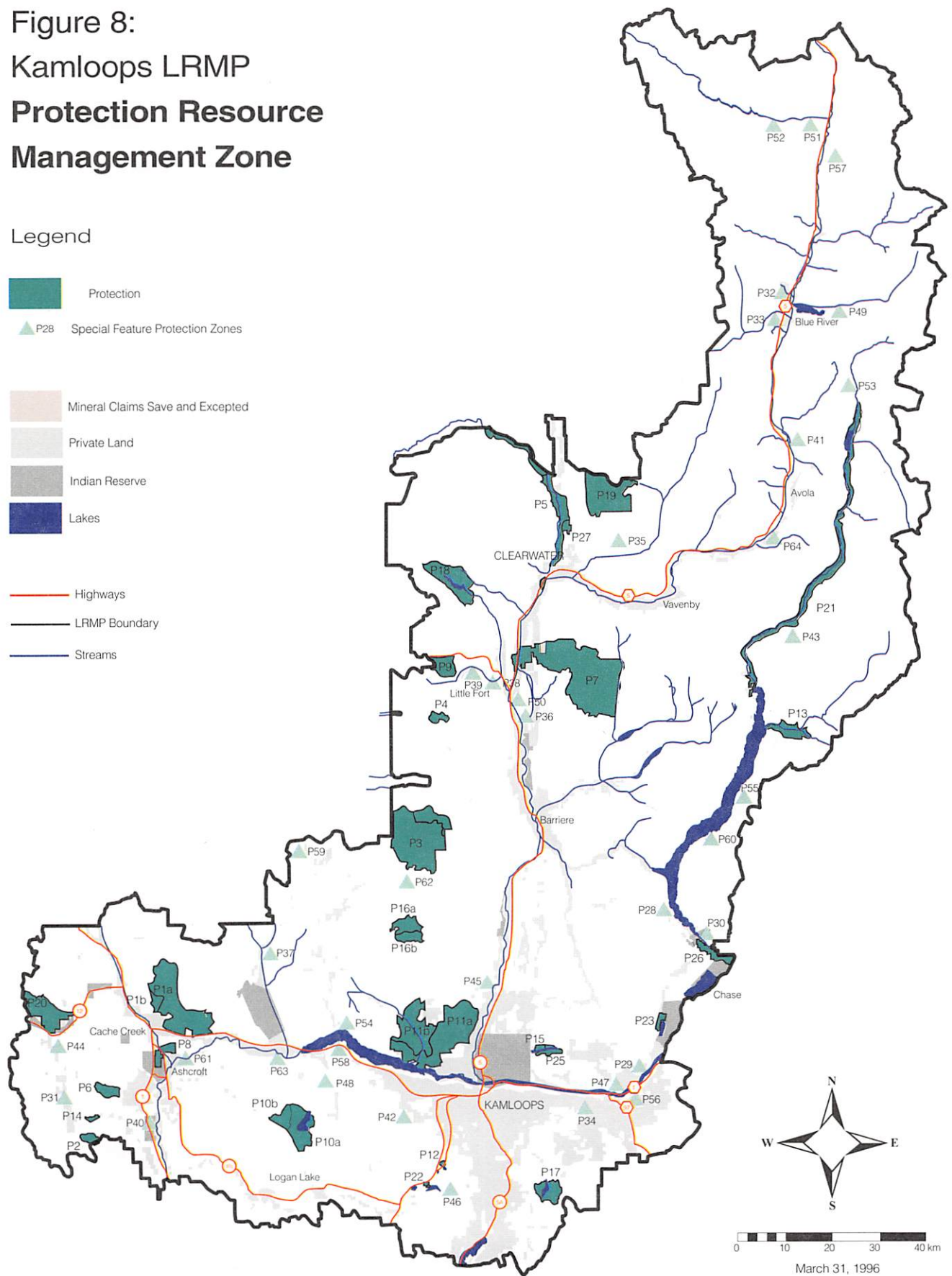
Objectives and strategies applying to all Protection RMZs are outlined in the following table.

Objectives	Strategies
<ul style="list-style-type: none">• Protect viable, representative examples of British Columbia's natural diversity and recreational opportunities and to protect special natural, cultural heritage and recreational features.	<ul style="list-style-type: none">• Logging, mining and energy exploration and development are prohibited in all Protection RMZs.• Appropriate control measures may be undertaken to control disease, insect infestation, noxious weeds (control methods will emphasize biological and cultural control methods), and fire where this is consistent with maintaining values within and outside of Protection RMZs and is consistent with local level plans.• The Grazing Policy recognizes certain categories where grazing will be prohibited

Figure 8:
 Kamloops LRMP
 Protection Resource
 Management Zone

Legend

- Protection
- P28 Special Feature Protection Zones
- Mineral Claims Save and Excepted
- Private Land
- Indian Reserve
- Lakes
- Highways
- LRMP Boundary
- Streams



Objectives and strategies for Protection RMZs cont'd

Objectives	Strategies
<ul style="list-style-type: none"> • Respect existing uses where these meet the objectives of Protection RMZs. 	<ul style="list-style-type: none"> • Domestic Livestock Grazing: The majority of Protection RMZs have existing grazing tenures, which are an allowed use and which will be permitted to continue subject to the Grazing Policy guidelines developed by the LRMP table (Section 2.3.1.1). • Trapping, and commercial tourism: Many Protection RMZs have existing tenures that will be allowed to continue. • To prevent recreational overuse, a local level plan may give direction to the use and access to an RMZ to preserve both the environment and the experience of using the area. Both public independent and commercial recreation use may be managed for this reason. • Existing utilities, such as transmission lines, pipelines and communications towers will be allowed to continue.
<ul style="list-style-type: none"> • Respect existing uses where these meet the objectives of Protection RMZs. 	<ul style="list-style-type: none"> • Water Licenses: Most Protection RMZs have existing water licenses that may include domestic, irrigation, diversions and water storage structures. These licences and the ability to manage them for their licensed use will be allowed to continue within Protection RMZs. RMZ management plans will allow for the continued access, maintenance and rehabilitation of water tenures. • Operators and tenure holders shall be entitled to fair and equitable compensation, subject to provincial policy, where they are not allowed to continue, sell or transfer their uses or operations.

Objectives and strategies for Protection RMZs cont'd

Objectives	Strategies
<ul style="list-style-type: none"> • Maintain a level of access appropriate to the objectives of the RMZ. 	<ul style="list-style-type: none"> • Access in Protection RMZs is often crucial to existing uses. Current methods of access to manage existing tenures will generally continue. Further access management concerns will be addressed in local level plans for Protection RMZs. • In RMZs having existing or potential tourism operations, and where tourism is an acceptable use, an appropriate local level plan will determine the desirability, necessity, location and type of access. • Local level plans will address motorized and non-motorized use.
<ul style="list-style-type: none"> • Assess and evaluate new proposals for use. 	<ul style="list-style-type: none"> • Allocation of new tenures will be subject to local level plans for the RMZ. Proposals for new uses will respect existing uses. • Proposals for new recreation and tourism uses will be reviewed in the context of the local level plan and the specific objectives and strategies for the RMZ. • Competitive sporting events, such as orienteering and cross-country skiing, are not necessarily excluded from Protection RMZs with a recreation and tourism emphasis. These uses must be compatible with the objectives and strategies for each area.

2.3.1.1 Domestic Livestock Grazing in Protection RMZs

The *Kamloops LRMP Policy for Domestic Livestock Grazing in Protected Areas* (Appendix 9) provides specific direction for managing grazing in these zones. In areas where grazing tenures already exist, these tenures are permitted to continue, and will be renewable and transferrable subject to the Grazing Policy. The following Protection RMZs having existing grazing tenures which will be permitted to continue:

Arrowstone (south of Back Valley Rd. and north tip)	Lac du Bois
Blue Earth Lakes	McConnell Lake
Bonaparte	Oregon Jack
Caverhill High Basin	Paul Lake Addition
Cornwall	Rattlesnake
Dunn Peak (portions)	Roche Lake
Emar	Two Spring
Guichon	

Increases in AUM's will generally not be permitted in these areas. Unallocated areas within RMZs that are partially covered by grazing tenures will remain unallocated, unless a local level plan recommends a new allocation that is consistent with the objectives and goals of the Protection RMZ. A local level planning process may also recommend that a reduction or removal of a grazing tenure is required to meet the objectives of the zone, and will review Range Use Plans for these zones.

Benchmark sites of ungrazed areas will be established in most Protection RMZs that are grazed, and in some areas outside of Protection RMZs, and will be managed in accordance with the strict preservation management category.

- Grazing will not be allowed in the following Protection RMZs which do not have existing grazing tenures:

Arrowstone (most of area north of Back Valley Rd.)	Porcupine Meadows
Clearwater River Corridor	Trophy Mountain
Elephant	Upper Adams

The Ministry of Forests is responsible for the management and administration of range resources in Protection RMZs. The Forest Practices Code will be used as a base for range management. Range Use Plans determined and approved by a local level planning group may establish management practices that exceed the Code. Flexibility remains for a local level planning group to allow domestic livestock grazing in Protection RMZs as a vegetation management tool or a fire (fuel) management tool to achieve RMZ objectives.

2.3.2 Area-Specific Objectives and Strategies

The following sections describe each Protection Resource Management Zone in the Kamloops LRMP, and outline recommended allowable uses and activities. All recommended uses and activities must meet the objectives of the Management Category assigned to the Protection RMZ.

P1. Arrowstone

The 10,500 hectare Arrowstone RMZ represents an array of important conservation, cultural and recreational values. There is extensive old growth in the RMZ, particularly along Arrowstone Creek, including one of the largest stands of old growth Douglas-Fir in the southern interior. It is also one of the largest undisturbed watersheds in the dry southern interior. The central area allows unique representation of grassland sequences. The Hoodoos at the south of the RMZ are a notable geological feature. Directly adjacent are the regionally significant McAbee fossil beds. The area also has important habitat values. It contains critical winter range for mule deer and is home to many rare species, including burrowing owls, falcons, and rattlesnakes.

Recreationally, Arrowstone allows hiking in a relatively pristine environment that is remote, yet is accessible to major highways. The southern portion of the RMZ, historically linked to the famous Gang Ranch, provides valued range for cattle grazing. A large area to the north of Back Valley Road does not have any existing grazing tenures.

The area is rich in cultural history. A regionally important aboriginal basalt quarry was located at the junction of Arrowstone and Cache Creek. The southwest portion of the RMZ has many archaeological sites.

The western part of Arrowstone RMZ overlaps Lopez Creek community watershed.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none"> • Strict Preservation • Heritage Areas and Natural and Cultural Sites • Natural Environment 	<ul style="list-style-type: none"> • Recommend that an area(s) be set aside for a grassland benchmark. • Management of the Zugg mineral claim (McAbee Fossil Beds) will be guided by the spirit and intent of the agreement negotiated between the tenure holder, the planning team and Ministry of Energy, Mines and Petroleum Resources as outlined in Appendix 2 • Local level access planning will address access management to protect grassland ecosystems from damage. • Knapweed control is to continue.

P2. Blue Earth Lakes

Blue Earth Lakes is a small 700 hectare unit that includes interior Douglas-Fir and Montane Spruce forests and is known for its beautifully coloured lakes. The area is popular and attractive for fishing and nature appreciation.

The Blue Earth wetland and riparian area is important for wildlife habitat. The RMZ is an important cultural heritage site. It contains regionally important archaeological sites and is an area of traditional native use.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none">• Natural Environment• Intensive Recreation and Tourism Sites	<ul style="list-style-type: none">• No area-specific management strategies are specified at this time.

P3. Bonaparte

This 11,700 hectare zone is provincially significant because of its high values for recreation and conservation. Bonaparte provides representation of Montane Spruce and Engelmann Spruce-Subalpine Fir forests and is an excellent example of the complex system of lakes, sedge meadows and riparian areas found in the Thompson Plateau.

This extensive natural area contains many wild rainbow trout lakes. Several recreation/tourism operations depend on the existing wilderness-type fishing and hiking opportunities provided in this area. Important habitat for several mammals and birds is also found within the zone, and Skoatl Point is a unique geological feature.

The north-western part of Bonaparte overlaps Peterson Creek community watershed.

Bonaparte Protection RMZ

Management Category(ies)	Management Strategies
<ul style="list-style-type: none"> • Natural Environment • Wilderness • Strict Preservation (orchid beds) 	<ul style="list-style-type: none"> • The Shelly Lake area (Area B) will be managed for public recreation use. • Where consistent with the access management plan, allowance will be made for limited mechanized access (including snowmobiles) on primitive roads or trails. All such uses will be subject to conditions identified the management and development plan for the RMZ. • Existing access into the RMZ will continue, for example <ul style="list-style-type: none"> - access by horse - aircraft access • Access adjacent to the RMZ will be managed in accordance with the defined objectives and strategies of the RMZ. • Motor boat use will be allowed on a site-specific basis. • A wildlife corridor in the form of an ecosystem network will be established between the protection zone and Bonaparte Lake.

P4. High Lakes Basin

The 600 hectare High Lakes Basin has significant conservation and recreation values. The RMZ includes several lakes containing wild trout, and Engelmann Spruce - Subalpine Fir forests. Fishing, hiking, hunting, and snowmobiling are popular activities in the area.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none"> • Wilderness 	<ul style="list-style-type: none"> • No area-specific management strategies are specified at this time.

P5. Clearwater River Corridor

The 3,100 hectare Clearwater River Corridor contains significant recreation and conservation values. The area has many hiking trails (including a trail to Mahood Lake), spectacular waterfalls, volcanic features, narrow canyons, quality angling opportunities, and provincially significant river rafting and kayaking opportunities.

This RMZ supports many ungulates, birds, salmon spawning habitat, migration corridors and old-growth Douglas-Fir and Cedar-Hemlock forests. Much of the corridor is high value critical moose winter range.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none"> • Natural Environment 	<ul style="list-style-type: none"> • The visually sensitive area around the RMZ will be managed for visual quality. • Road access issues are to be resolved through local level planning. Resolution of these issues will be directed by the uses and activities permitted in the RMZ. There is a need for a funding source to maintain the access road. • Management plan to consider the use of fire in important wildlife areas to maintain seral stages required for habitat.

P6. Cornwall

This 1,200 hectare zone includes representation of interior Douglas-Fir, Engelmann Spruce - Subalpine Fir, and Montane Spruce forests with patches of old growth and high elevation grasslands. Cornwall contains a high diversity of habitats, regionally important upland archaeological sites and is an area of traditional native use.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none"> • Heritage Areas and Natural and Cultural Sites 	<ul style="list-style-type: none"> • A benchmark may be considered within or adjacent to the RMZ. • Local level planning will address motorized access management to protect grassland ecosystems from damage.

P7. Dunn

The 19,600 hectare Dunn offers unique conservation values in that it provides an elevational sequence that runs from the Thompson River floodplain to the recreationally significant alpine, and includes interior Douglas-Fir, Englemann Spruce and Montane Spruce forests. There is considerable undisturbed old growth. The RMZ provides habitat for a large variety of significant wildlife populations, including cougar, wolf, black bear, and mountain goats.

The RMZ provides outstanding backcountry wilderness opportunities, including hiking, mountaineering, ski touring, horseback riding, wildlife viewing and hunting. The matterhorn-like Dunn peak is a popular recreation destination. At 2,634 m, it is the highest mountain between the Coast Range and the Monashees.

The Dunn area contains valuable grazing for the century old Fennel ranch.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none">• Wilderness• Natural Environment (north leg)	<ul style="list-style-type: none">• The McCarthy 4 mineral claims will be considered for inclusion into the RMZ once the claims lapse or are willingly relinquished.• Timber harvesting, other than that required for subsurface exploration and development is prohibited in that portion of the McCarthy 4 mineral claim that lies within the Dunn Peak RMZ, until such time as the mineral claims expire and the decision is made whether or not to make the area part of the Protection RMZ.• Management of the area between the Thompson River and the west boundary of the RMZ (including Dunn Canyon and the southwest face of Baldy), will be decided through a local level plan. The area will be a priority for local level planning• In the event that the Chu Chua Mountain and Foghorn Mountain mineral claims areas become operating mines, local level planning will consider an access corridor connecting the mines through the RMZ.• The presence of Dunn Peak Protection RMZ will not negatively impact proposals for mining development in areas adjacent to the RMZ.

P8. Elephant

The 900 hectare Elephant-Rattlesnake unit represents a unique opportunity to protect climax natural grasslands. Elephant Hill is ungrazed by domestic livestock. Rattlesnake Hill is grazed under a spring/fall pasture rotation system, and is an example of an excellent condition grassland.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none">• Strict Preservation (Elephant Hill)• Natural Environment (Rattlesnake Hill)	<ul style="list-style-type: none">• Knapweed control will continue.• Local level planning will address access management to minimize damage to grassland ecosystems from recreational and other uses.

P9. Emar

This 1,700 hectare zone encompasses a small chain of lakes located on a forested plateau in the upper Emar Creek drainage. It includes Sub-Boreal Spruce forests and a small amount of Engelmann Spruce - Subalpine Fir. The area is regionally significant as a recreation area, with an easy circular canoe route, and fishing and camping areas.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none">• Natural Environment	<ul style="list-style-type: none">• Access has been identified as a concern for this area. Local level planning will address type and quantity of access for the RMZ.• Existing road access to Janice Lake will be respected.• Motorized boating will be allowed, where appropriate.

P10. Tunkwa

This 5,100 hectare zone is a mosaic of grasslands and interior Douglas-Fir forests. At its centre are Tunkwa and Leighton Lakes, two large artificially created irrigation reservoirs. The grasslands are very important grazing areas supported by native and non-native grass species. There are also a number of swamp complexes created and supported by licensed, diverted water being ditched to Tunkwa and Leighton Lake reservoirs. Not only do these reservoirs store water for irrigation purposes, they are also popular recreation areas.

The Tunkwa RMZ offers an abundance of recreation opportunities in a natural setting. The area has numerous lakes on a forested plateau. Tunkwa and Leighton Lakes are provincially significant trout fishing lakes that experience heavy recreation use. Other recreation uses include camping, hiking, wildlife viewing, horseback riding, motorized recreation, cross country skiing and hunting.

The western part of Tunkwa overlaps Guichon Creek Community Watershed.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none">• Natural Environment• Intensive Recreation and Tourism Sites	<ul style="list-style-type: none">• The current level of AUM use will be maintained within the range unit, subject to the normal regulation by the Range Section of the Ministry of Forests.• A significant number of water tenures exist in this RMZ. Tunkwa Lake is recognized as being an irrigation reservoir and will continue to be managed for its licensed use. This includes maintenance and development of irrigation structures.• A co-operative water development project is underway that involves storage structures on Forge Meadows and Corral Lake. This project provides multiple benefits for local ranchers, Ducks Unlimited and Provincial Fisheries and will be allowed to continue. Knapweed and houndstongue control will continue.• Knapweed and houndstongue control will continue.• Consistent with local level planning processes, local stakeholders will be included in developing the management plan for this area.

Tunkwa Protection RMZ cont'd

Management Category(ies)	Management Strategies
	<ul style="list-style-type: none"><li data-bbox="591 395 1328 459">• Intensive livestock management systems are required. This includes extensive fencing.<li data-bbox="591 497 1328 661">• The management plan for the RMZ will address visitor management in areas most intensively used for recreation. This local level plan will consider the potential impact of visitor management in the Guichon RMZ on adjacent recreation areas.

P11. Lac du Bois Grasslands

The 15,000 hectares in Lac du Bois encompass a diverse range of ecosystems including extensive grasslands, large stands of old growth Ponderosa Pine and Douglas-Fir, and many ponds, lakes and riparian areas. It is a critical habitat area for bighorn sheep and mule deer.

The area has a history of grazing that dates to the days of the Hudson's Bay Company. Some of the area was homesteaded in the early 1900s. It is used extensively for a wide variety of recreational uses, such as hiking, orienteering, mountain biking and snowmobiling.

This RMZ is unique in that several parcels of private land are wholly contained in its boundaries. Provisions have been made to ensure that use of this private land will not be affected by the management of the RMZ. The northwestern part of Lac du Bois overlaps Tranquille Creek Community Watershed.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none"> • Natural Environment • Heritage Areas and Natural and Cultural Sites • Intensive Recreation and Tourism 	<ul style="list-style-type: none"> • Recreational gold panning (pan and shovel only) will be permitted within 100m along both sides of the Tranquille River. • Recreational gold panning on the Tranquille River will extend from the mouth of the river to the bridge outside of the RMZ. • An access corridor from Batchelor Hills to the Nobel Lake area will continue for recreational motorcycle use. The number of motorcycle trails in the RMZ will be reduced. • A replacement recreational motorcycle use area will be sought outside the RMZ. • Private land surrounded by the RMZ will not be affected by its protection status. Road and utility access to private land within the RMZ will be allowed, even where current access may not exist. • Ungrazed benchmarks have been identified and mapped in the RMZ. • The part of the Isobel Lake Interpretative Forest that is within the RMZ will continue to be used for educational purposes in keeping with the objectives of the RMZ. • If the Tranquille Farm site defaults to the Crown, it is recommended that the area be reviewed to include portions into the RMZ.

Lac du Bois Grasslands Protection RMZ cont'd

Management Category(ies)	Management Strategies
	<ul style="list-style-type: none"> • The existing road access from Tranquille through the RMZ to Frederick Lake will continue to be allowed. Future upgrading of the road for industrial use will be allowed. • Research conducted by the Ministry of Agriculture in the Lac du Bois RMZ will continue. • The Tranquille Wildlife Management Area(WMA) will remain a WMA within the overall bounds of this protection RMZ, subject to the continuation of currently allowed activities. • The control of knapweed, houndstongue, burdock and blue weed will continue in the RMZ. • The existing Lac du Bois LRUP will continue and will form the basis of a multi-sector planning group. • Local level planning will address road access issues. • The Dal 2 mineral claims lands adjacent to Batchelor Hills and Battle Bluff will be considered for eventual inclusion into the RMZ based on the following criteria: If a/ there has been no exploration activity over the 10 years; b/ the claim area has been explored, but nothing worth developing into production is found; c/ the claims lapse; or d/ the claims are willingly relinquished, then the area will become part of the Protection RMZ. If, a/ exploration reveals signs of an economic deposit; or b/ an economic deposit is found, then mineral development will proceed, under the normal referral process. • The area on the north side of Watching Creek will be managed for visual concerns to an elevation of 900 m.

P12. McConnell Lake

McConnell Lake Protection RMZ was formerly a designated Recreation Area, encompassing 75 hectares. The lake is a provincially significant fishing site.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none">• Natural Environment	<ul style="list-style-type: none">• No unique management strategies have been specified at this time

P13. Momich Lakes

The 1,650 hectare Momich Lakes RMZ encompasses a valley bottom with three lakes, associated wetlands and Interior Cedar-Hemlock forests. At its centre is Momich Lake, a scenic lake with a large white sandy beach on the east end. The lake supports sockeye salmon, trout and other fish species, and is popular for fishing, swimming, canoeing, camping and wildlife viewing. The area is used as a winter corridor for game species.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none">• Natural Environment	<ul style="list-style-type: none">• Local level planning will address road access issues.

P14. Oregon Jack Notch

This 300 hectare unit was designated to protect a special biophysical feature called the Notch; a cultural heritage site which contains pictographs and the Three Sisters rock shelter. A small amount of interior Douglas-Fir is included in the Oregon Jack RMZ.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none">• Heritage Areas and Natural and Cultural Sites	<ul style="list-style-type: none">• No unique management strategies have been specified at this time.

P15. Paul Lake Addition

The Paul Lake Addition adds 250 hectares of interior Douglas-Fir forests to the existing Paul Lake Provincial Park. The unit provides additional opportunities for a variety of recreational pursuits, and protects habitat for a diverse number of wildlife species.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none">• Natural Environment	<ul style="list-style-type: none">• Knapweed and houndstongue occur in this vicinity and control needs to be addressed.

P16. Porcupine Meadows

The 2,000 hectare Porcupine Meadows unit contains an extensive wetland complex within Englemann Spruce - Subalpine Fir forest. These wetlands are important to many wildlife species, including sandhill cranes.

The RMZ includes trails to the sub-alpine, and provides opportunities for hiking, wildlife viewing and nature appreciation. The area is popular with snowmobilers and hunters. There is a historic pack horse trail to Porcupine Ridge.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none">• Natural Environment	<ul style="list-style-type: none">• Snowmobiling, hunting and trapping (existing licenses) are allowed uses.

P17. Roche Lake

This 2,100 hectare zone encompasses Roche Lake, a popular recreation area known for its world class fishing opportunities. Other recreational uses of the area include camping, hunting, wildlife viewing, cross-country skiing and snowmobiling. A small amount of interior Douglas-Fir forest is included in the RMZ.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none">• Natural Environment• Intensive Recreation and Tourism Sites	<ul style="list-style-type: none">• The management plan for the RMZ will address visitor management in the most intensively used areas (in the vicinity of the campground and resorts). The plan will consider the potential impact of visitor management in the Roche Lake RMZ on adjacent recreation areas.• Local level planning will assess an appropriate level of access for the RMZ.• Evaluate the impact of heightened use on the fishery.

P18. Taweel

This 4,350 hectare RMZ is representative of the sub-boreal spruce forests found in the Kamloops LRMP that are provincially unique. It includes the riparian systems at the north end of Taweel Lake and patches of old growth. It offers fishing, hiking and nature appreciation opportunities in a wilderness-like setting. Taweel RMZ also provides habitat for moose, marten, fisher and several bird species.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none">• Wilderness	<ul style="list-style-type: none">• Appropriate road access to the south side of Taweel Lake to be addressed through local level planning.

P19. Trophy Mountain

This 7,000 hectare unit was previously a designated Recreation Area. Trophy Mountains are a popular destination for outdoor recreationalists from around the world. The alpine meadows are internationally recognized for their summer flowers. The area is popular for hiking, camping, cross-country skiing and ski-touring.

The RMZ includes Alpine Tundra and Engelmann Spruce - Subalpine Fir forests and is important habitat for many wildlife species, including grizzly and mountain caribou.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none">• Wilderness	<ul style="list-style-type: none">• Historic snowmobile use (two days per year) will continue, consistent with caribou management strategies.• Heli-skiing access will continue.• Hunting is an acceptable use, subject to existing regulations.• Access issues for the RMZ will be addressed through local level plans.

P20. Two Spring

This 4,300 hectare RMZ includes the entire Two Spring Creek watershed, which contains an elevational sequence that includes interior Douglas-Fir, Montane Spruce and Englemann Spruce - Subalpine Fir forests. A limestone bedrock gives a unique distribution of flora. Although a small amount of grazing occurs in the RMZ, the area is relatively undisturbed. First Nations have a historic interest in the area.

The government, in cooperation other interested sectors will attempt to acquire the Da Vinci mineral claims, and include this area in the Protection RMZ. If the claims cannot be acquired, discussion will take place to designate a replacement area with equivalent representational values for a Protection RMZ.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none">• Strict Preservation• Wilderness	<ul style="list-style-type: none">• The existing road to the south that provides access to the limestone quarry will remain open. Local level plan to address access issues.• A unique swamp bog in the area provides opportunities for wildlife viewing and resource appreciation.

P21. Upper Adams River

This rich riparian area includes 6,100 hectares of valley bottom interior cedar-hemlock forests. It extends to either side of the Adams River floodplain, from the Tum Tum wetlands to Adams Lake. The Upper Adams River supports the most significant sockeye enhancement opportunity in the Fraser Basin.

Management Category(ies)	Management Strategies
<ul style="list-style-type: none">• Natural Environment	<ul style="list-style-type: none">• Local level planning will address motorized vehicle use on the river.

2.3.3 Special Feature Protection Resource Management Zones

Special Feature Protection RMZs are small areas protected for their rare, scarce or unique features. In these RMZs, management objectives are directed to protecting the special features identified.

The following sections describe Special Feature Protection Resource Management Zones in the Kamloops LRMP. All recommended uses and activities must meet the objectives of the Management Category assigned to the Protection RMZ.

	Goal 2 Protected Area	Feature	Area (ha)	Management Category	Comments
P28	Adams Lake	Beach recreation	60	Intensive Recreation / Natural Environment	<ul style="list-style-type: none"> Existing mineral claims to be save and excepted (30 ha). No 'extra' VQO constraints or restrictions on mineral exploitation in adjacent lands
P29	Banana Island	River Island / Historic	8	Natural Environment / Heritage	
P30	Bear Creek Flume	Historic Log Chute	90	Intensive Recreation / Natural Environment	
P31	Bedard Aspen	Aspen complex	180	Natural Environment	
P32	Blue River Black Spruce Swamps	Rare forest	180	Natural Environment	
P33	Blue River Pine		80	Natural Environment	
P34	Buse Lake	Shoreline / significant species	200	Natural Environment	<ul style="list-style-type: none"> Save and except existing mineral claims (45 ha)
P35	Caligata Lake	Subalpine biotic	150	Natural Environment	
P36	Chu Chua Cottonwoods	Wildlife habitat	100	Natural Environment	<ul style="list-style-type: none"> Access through the protected area to the north half of the island may be required.
P37	Deadman Hoodoos	Geologic feature		Natural Environment	<ul style="list-style-type: none"> PA boundary accomodates proposed quarry

Goal 2 Protected Areas (cont'd)

	Goal 2 Protected Area	Feature	Area (ha)	Management Category	Comments
P38	Eakin Creek Canyon	Geologic / Historic	8	Natural Environment	<ul style="list-style-type: none"> Small mineral claim overlap save and excepted to allow for logical boundary at powerline
P39	Eakin Creek Floodplain	Riparian / Old Growth	140	Intensive Recreation / Natural Environment	
P40	Epsom	Riparian / Recreation	70	Natural Environment	
P41	Finn Creek	River biotic / fishery	300	Intensive Recreation / Natural Environment	<ul style="list-style-type: none"> Existing mineral claims save and excepted (8 ha).
P42	Greenstone Mountain	Grassland / Alpine	100	Natural Environment	<ul style="list-style-type: none"> Mineral claims in northern portion are save and excepted (25 ha) The grasslands within the save and except area will be managed for protected area values. Possible future expansion of the telecommunications tower site will be addressed
P43	Harbour-Dudgeon Lakes	Fishery / Wetlands	360	Natural Environment	
P44	Harry Lake Aspen	Aspen / Grassland	300	Natural Environment	<ul style="list-style-type: none"> Mineral claims to be save and excepted (20 ha)
P45	Jensen Island Oxbows	Riparian complex / wildlife habitat	30	Natural Environment	<ul style="list-style-type: none"> Area was identified for wildlife habitat values. Allowance must be made for habitat improvement work. Private land may be included.
P46	Lac Le Jeune Lakeshore	Lakeshore	150	Intensive Recreation / Natural Environment	
P47	Monte Creek Riparian	River access	1	Heritage / Natural Environment	
P48	Mt. Savona	Geologic / Pictograph	400	Natural Environment	

Goal 2 Protected Areas (cont'd)

	Goal 2 Protected Area	Feature	Area (ha)	Management Category	Comments
P49	Mud Lake Delta	Riparian complex	500	Natural Environment	<ul style="list-style-type: none"> It is recognized that a helicopter landing site may be required in this area, which may necessitate a boundary revision. Access to a privately owned lot may be required in the future.
P50	N. Thompson Islands	Riparian	80	Natural Environment	
P51	N. Thompson Oxbows - East	Riparian complex	270	Natural Environment	<ul style="list-style-type: none"> Existing Timber Licence to be save and excepted (60 ha).
P52	N. Thompson Oxbows - West	Riparian habitat	500	Natural Environment	<ul style="list-style-type: none"> Existing Timber Licence to be save and excepted (10 ha).
P53	Oregana Creek Old Growth	Rare species / 'Antique' forest		Natural Environment	<ul style="list-style-type: none"> Area between the road and Goal 1 PA just north of Tum Tum Lake to be managed for caribou habitat values.
P54	Painted Bluffs	Geologic / Grassland	100	Natural Environment	
P55	Poplar Point	Beach	30	Natural Environment	<ul style="list-style-type: none"> PA must not preclude road access along the east side of Adams Lake No 'extra' VQO constraints or restrictions on mineral exploitation in adjacent lands.
P56	Pritchard Riparian	River - Historic / Waterfowl	40	Natural Environment	
P57	Pyramid Creek Falls	Waterfall	10	Natural Environment	
P58	Six Mile Hill	Old growth / Grassland		Natural Environment	<ul style="list-style-type: none"> Issues of grazing management to be discussed with grazing lease holder
P59	Skookum Hoodoos	Geologic feature	10	Natural Environment	
P60	Spillman Beaches	Beach / Grassland	190	Intensive Recreation / Natural Environment	<ul style="list-style-type: none"> PA must not preclude road access along the east side of Adams Lake. No 'extra' VQO constraints or restrictions on mineral exploration.

Goal 2 Protected Areas (cont'd)

	Goal 2 Protected Area	Feature	Area (ha)	Management Category	Comments
P61	Thompson Bend	Riverbank recreation	8	Natural Environment	
P62	Tsintsunko Lakes	Lakes / Wetlands / Fishery	350	Intensive Recreation / Natural Environment	<ul style="list-style-type: none"> An access management zone will be identified for the balance of Tsintsunko Lake not included in the PA and the lakes to the northeast.
P63	Walhachin Oxbow	River recreation	40	Natural Environment	
P64	Wire Cache Wetlands	Wetland / Old Growth	50	Natural Environment	<ul style="list-style-type: none"> Access may be required through the unit for timber harvesting. The intent is to locate the road to minimize environmental impacts as much as possible.

2.3.4. Goal Two Protection Resource Management Zones identified for future review

The following areas have been deferred to permit further study and research (e.g. for paleontological studies, or for follow-up by a local level planning process). Recommendations on land use designation for these areas will be made at the 1996 plan review meeting.

A. Fossil Sites:

Battle Bluff	Harper Mountain	Newhykulston
Blueclay	Hemp Creek	South Thompson
Boulder Creek	Joseph Creek	Vavenby
Deadman Lake	Lemieux 2	Venables Creek

B. Other

	Name	Feature	Area	Comments
1	Cook Creek		160	
2	Mad River / North Thompson Pictographs	pictographs		
3	McGlashan Petrified Wood	geologic		
4	Mt. McLennan	grassland	40	
5	Mt. Olie	recreation / conservation	200-400	<ul style="list-style-type: none"> To be referred to local group looking at forest development plans for this area There are two proposed boundaries for this area
6	Refuge Bay (Adams Lake)	beach, moorage		<ul style="list-style-type: none"> This area has been approved by the planning team as a Goal 2 protected area, subject to the results and management recommendations of a traditional use study Existing UREP will be maintained A notation of interest will be established over lands to the north to ensure this area is not permanently alienated.
7	Vavenby River Access	riverbank recreation	110	Issues - public recreation access to river, riparian and agriculture / ALR; to be presented to the community for feedback

2.4 Special Resource Management - Community Watersheds

In Special Resource Management - Community Watershed Zones, conservation of water quality and quantity, and timing of flow is the priority. Most water systems in British Columbia are supplied from within Crown lands.

Special Resource Management - Community Watershed Zones in the Kamloops LRMP as defined and designated in the *Forest Practices Code of BC Act*, are shown in Figure 9 and are listed below.

Community Watershed Resource Management Zones

W1	Avola Creek	W8a,b	Lac Le Jeune	W15	Posby Lake
W2	Cornwall Creek	W9	Leonie Creek	W16	Resort Creek
W3	Currie Brook	W10,	Lopez Creek	W17	Russell Creek
		P1b			
W4	Gill Creek	W11	McDougall Creek	W18	Skwootum Creek
W5	Guichon Creek	W12	Nelson Creek	W19	Toops Creek
W6	Hascheak Creek	W13,	Paul Lake	W20,	Tranquille Creek
		P15,P25		P11b	
W7	Jimmies Creek	W14	Peterson Creek	W21	White River

2.4.1 Resource Management Objectives and Strategies

The primary objectives for Special Resource Management - Community Watershed Zones are to:

- maintain the quality and quantity of community water supply;
- minimize risk to lives and property from flooding and erosion; and
- maintain natural stream flow regimes within acceptable limits.

Resource development activities are permitted and encouraged so long as Community Watershed Zone objectives are achieved. Minimum standards for the management of Community Watersheds are governed by the Forest Practices Code and Provincial *Community Watershed Guidelines*. Objectives and strategies outlined in the General Management Zone apply as base management for this zone.

Joint sign-off by the Forest District Manager and Designated Environment Official is required for all forest development plans within community watersheds.

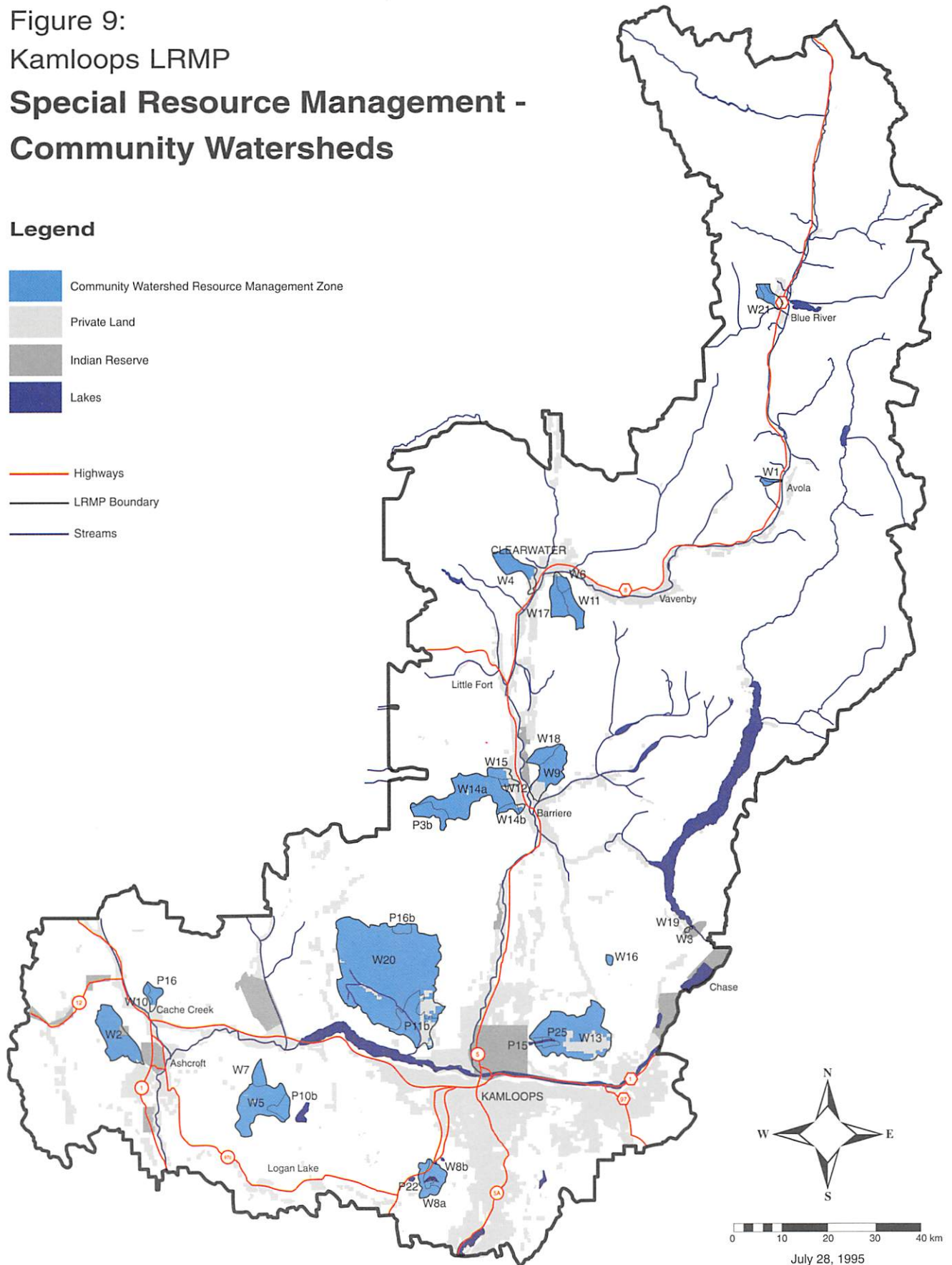
Objectives and strategies for Community Watershed RMZs

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Ensure existence of acceptable levels of water quality and quantity. • Water conservation. • Ensure drinking water systems meet or exceed Canadian Drinking Water Quality Standards within maximum acceptable element concentrations. • Maintain natural stream flow regime within acceptable limits. 	<ul style="list-style-type: none"> • Conduct the appropriate level of watershed assessment* for each community watershed on a priority basis to be determined and implement remedial strategies on a priority basis. • Ensure compliance with relevant legislation, regulations, guidelines and plans. • Ensure existing water quality sampling in Community Watersheds on a priority basis. • Investigate all complaints dealing with water quality in a timely fashion. • Refine existing sampling program to more fully assess those streams where yearly analysis or complaints show unacceptable water quality and promptly implement all recommendations arising from this detailed assessment. • Upon review of applicable watersheds, implement procedures to rehabilitate negatively impacted watersheds to improve water quality and/or streamflow regimes to a sustainable level. • Establish instream flow requirements for appropriate non-consumptive uses. 	<p>Average seasonal water levels in major water courses and storage facilities</p> <p>Water quality</p> <p>No. of watersheds requiring watershed assessment</p> <p>Management opportunities available</p> <p>Water quality</p> <p>% compliance with relevant legislation, regulations, guidelines and plans</p> <p>No. of concerns identified</p> <p>Unusual water shortages in low flow periods</p>

Figure 9:
 Kamloops LRMP
**Special Resource Management -
 Community Watersheds**

Legend

- Community Watershed Resource Management Zone
- Private Land
- Indian Reserve
- Lakes
- Highways
- LRMP Boundary
- Streams



July 28, 1995

Objectives and strategies for Community Watershed RMZs cont'd

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Minimize risk to lives and property from flooding and erosion. • Recognize interaction of groundwater with surface water sources. • Encourage inter-agency/public co-operation to achieve harmony within each community 	<ul style="list-style-type: none"> • Ensure road construction, maintenance and deactivation complies with appropriate legislation and regulation while maintaining adequate drainage throughout resource development activities. • Develop and implement comprehensive Floodplain Management Plans in selected areas on a priority basis to be determined. • Establish a groundwater aquifer management program. • Implement groundwater monitoring sites. • Implement a notification procedure within the referral system to protect affected water licensees when development is proposed. • Encourage the creation of water user groups for each watershed. • Development of guidelines for grazing will involve any grazing tenure holders in the Community Watershed. 	<p style="text-align: center;">Erosion</p> <p>Public response i.e. fisheries /licensee interests</p>

2.5 Special Resource Management - Habitat / Wildlife Management Areas

Special Resource Management Zones for Habitat and Wildlife Management Areas have been established in the Kamloops LRMP area where there is regionally or provincially significant wildlife habitat. Management in these zones will ensure the long-term viability of identified wildlife habitat, using a wide variety of management tools and activities.

Special Resource Management zones for Habitat and Wildlife Management Areas are shown in Figure 10 and listed in the table below:

H1	North Thompson Caribou (General)	H8	North Blue Caribou
H2	Alan Creek Caribou	H9	Thunder Caribou
H3	Bischoff Caribou t	H10	Battle Bluffs Wildlife Habitat
H4	Bone Caribou	H11	Skull Wildlife Habitat
H5	Clemina Caribou	H12	Skwilatin Wildlife Habitat
H6	North Thompson Glacier Caribou	H13	Dewdrop-Rousseau Wildlife Management Area
H7	Smoke Caribou	H14	Skull Wildlife Management Area

Objectives and strategies for all Habitat Resource Management Zones are outlined below, followed by area-specific objectives and strategies. Objectives and strategies outlined in the General Management Zone also apply as baseline management in these zones. Joint sign-off by the Forest District Manager and Designated Environment Official is required for all forest development plans within Special Resource Management Zones for Habitat and Wildlife Management Areas.

2.5.1 Resource Management Objectives and Strategies

The overall objective of special resource management zones for habitat and wildlife management areas is to:

- maintain or enhance identified wildlife habitat areas.

An important strategy for achieving this objective is to undertake long-term planning for each of the habitat zones and wildlife management areas, which will include some or all of the following:

- a/ an inventory of opportunities and features;
- b/ mapping of wildlife and biodiversity values;
- c/ defined and mapped long term operational areas for other resource uses; and,
- d/ access management.

2.5.2 Area-Specific Objectives and Strategies

H1. North Thompson Caribou Habitat (General)

Mountain Caribou habitat in the North Thompson has been designated as a Special Resource Management Zone because of the provincial significance of this species, and its dependence on certain old-growth forest attributes - specifically lichen-bearing trees. Caribou habitat in the LRMP area is provincially significant because it provides a critical migration corridor between Wells Gray and Kootenay caribou populations. The continued intermixing and gene flow between these two groups is considered crucial for their long-term genetic viability. Managing to maintain caribou habitat will also aid in maintaining the habitat of other species using these areas.

Mountain Caribou require two distinct types of habitat: areas used during the early winter and spring, and areas inhabited during late winter and summer. Late winter (and summer) habitat in the LRMP is found at high elevations, generally above 1,700 metres, in the Engelmann Spruce - Sub-Alpine Fir biogeoclimatic zone. During the late winter, caribou depend almost exclusively on lichen associated with old forests as their food source.

Early winter or transitional habitat areas are usually adjacent to late winter habitats, and are generally between 1,300 and 1,700 metres in elevation. In addition, there is some early winter habitat that extends well downslope to valley bottoms. These habitat areas are important in that they provide early winter foraging, calving areas, movement corridors to late winter habitat and key habitat during severe winters.

While there is a basic understanding of caribou habitat requirements, it is generally agreed that further research is needed to improve our understanding of specific habitat attributes and our ability to manage caribou habitat.

Resource Management Objectives and Strategies

The overall objective for the North Thompson Caribou Habitat Resource Management Zone is to:

- maintain a viable population of caribou within defined ranges, while maintaining ecosystem health.

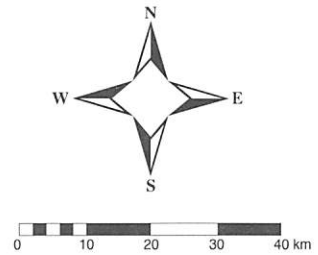
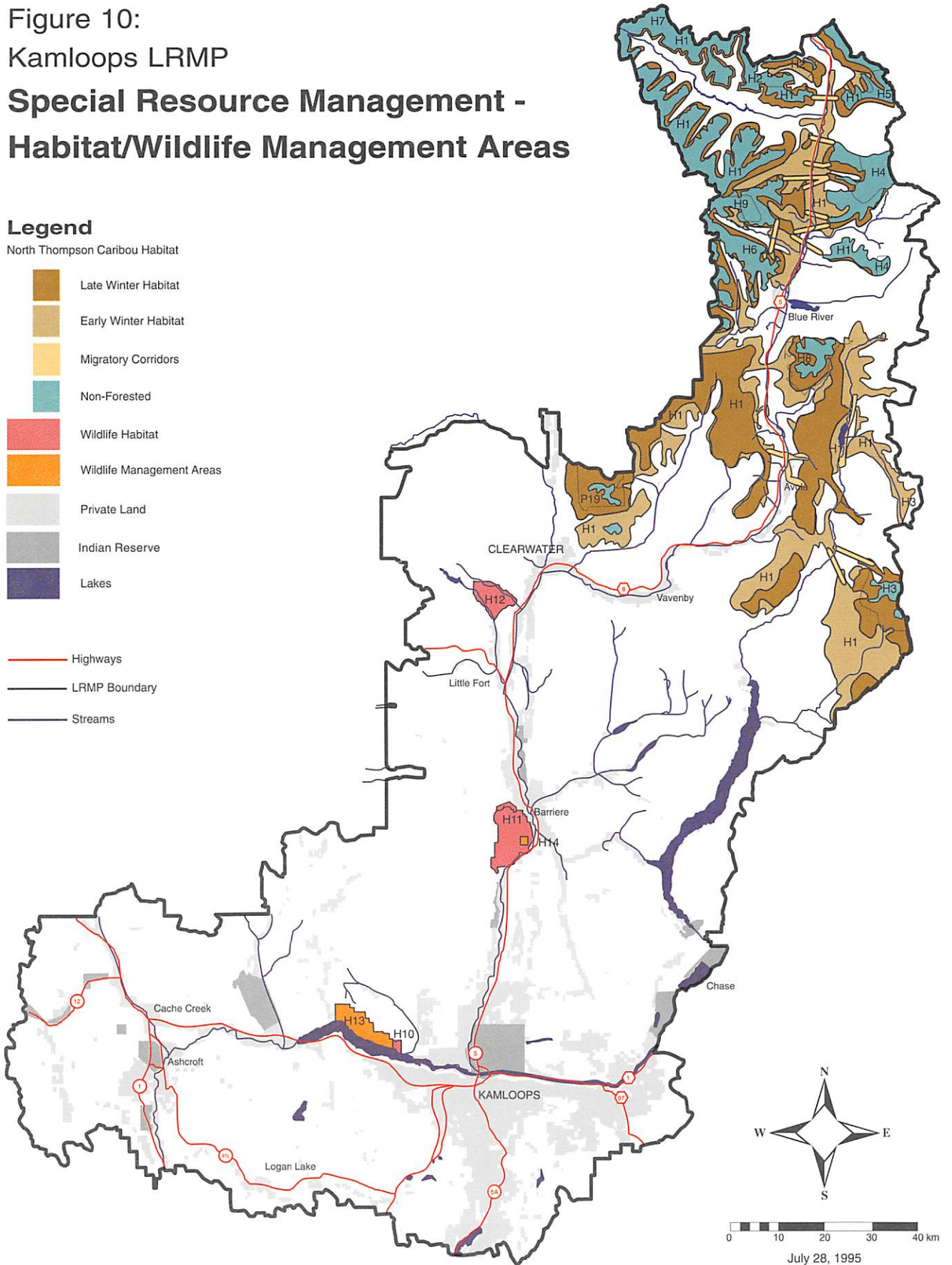
Further objectives and strategies for achieving the objectives are outlined in the following table.

Figure 10:
 Kamloops LRMP
**Special Resource Management -
 Habitat/Wildlife Management Areas**

Legend

North Thompson Caribou Habitat

- Late Winter Habitat
 - Early Winter Habitat
 - Migratory Corridors
 - Non-Forested
 - Wildlife Habitat
 - Wildlife Management Areas
 - Private Land
 - Indian Reserve
 - Lakes
-
- Highways
 - LRMP Boundary
 - Streams



July 28, 1995

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> Maintain a viable population of caribou within defined ranges, while maintaining ecosystem health. 	<p><i>Timber Harvesting Guidelines</i></p> <ul style="list-style-type: none"> Implement operational timber harvesting guidelines for both late and early winter habitat areas, to ensure forest attributes needed by caribou are maintained. Refer to Kamloops LRMP <i>Timber Harvesting Guidelines for Caribou Habitat</i> (Appendix 10). Strategies for <i>Transitional / Early Winter Habitat</i> are to provide snow interception cover, early winter foraging, calving areas and movement corridors to adjacent areas. Strategies for <i>Late Winter Habitat</i> are to provide sustained lichen production and movement corridors. A rotation age of 150 years will be used in late winter habitat areas. Second entry will only take place if it can be shown that adequate habitat containing "caribou attributes" would be left after logging of second pass. Current logging guidelines will be reviewed in 5 years, with possible modifications based on the findings of the interim report of the 10-year research program. <p><i>Habitat Linkages</i></p> <ul style="list-style-type: none"> Migratory corridors linking high capability caribou habitat in the LRMP to surrounding areas will be identified and mapped. Forest management guidelines for maintaining these areas as travel corridors are included in Kamloops LRMP <i>Timber Harvesting Guidelines for Caribou Habitat</i> (Appendix 10). 	<p>Changes in population</p> <p>Population distribution patterns</p> <p>Habitat that meets forest cover objective expressed by forest inventory information</p>

Objectives and strategies for the North Thompson Habitat RMZ cont'd

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Improve understanding of the behaviour and biology of caribou populations, and the effect of resource development on caribou habitat. 	<p><i>Habitat Research</i></p> <ul style="list-style-type: none"> • A 10 year research project will be jointly developed and presented to the Forest Renewal Plan of BC. The intent of this research project would be: <ul style="list-style-type: none"> a/ to evaluate the impact of current guidelines for timber harvesting in caribou habitat. b/ to identify habitats used by caribou and to characterize key attributes of those habitats. c/ to review attributes required in movement corridors. • Within the RMZ, there will be a mapped "Research Area". This area will be used as the key research area in the proposed research program. There are a number of cutblocks in the research area that will be logged over the next three years (specifically, FLA18694 CP133, 136; 142; 118; 143; and 154). An agreement is in place that no further logging will be proposed within this area until the interim report of the research project has been reviewed. • The concept of very limited tree cutting for exploration purposes is not prohibited during the moratorium period. • A review is to be completed by Dec 31, 1999 to assess the need for continuation of the research area. • Timber harvesting in the research area will be undertaken using current guidelines for logging in winter and transitional caribou habitat. Winter roading will be minimized and not kept open beyond each winter's logging requirements. 	

Objectives and strategies for the North Thompson Habitat RMZ cont'd

Objectives	Strategies	Indicators
	<p><i>Access Management</i></p> <ul style="list-style-type: none"> Local level plans will address access concerns related to caribou management. In order to minimize predator access to caribou habitat, winter logging will be concentrated in order to minimize the length of ploughed road. <p><i>Ungulate Management</i></p> <ul style="list-style-type: none"> Encourage separation of caribou and other ungulates within caribou habitat to reduce risk of predation. Pursue moose enhancement programs outside of the Caribou Management Zone. <p><i>Grazing by Domestic Livestock</i></p> <ul style="list-style-type: none"> Caribou use the high elevation meadows within Late Winter habitat for summer forage. New opportunities for grazing or expansion of existing tenures would have to avoid the use of high elevation meadows and riparian areas within Late Winter habitat through the use of full time range riders or other appropriate methods. Where grazing is used as a silviculture tool for vegetation management, range herders or other appropriate methods must be utilized to avoid predator interactions. <p><i>Inventory Information</i></p> <ul style="list-style-type: none"> Develop and maintain caribou population inventories 	<p>Incidence of predation</p>

Objectives and strategies for the North Thompson Habitat RMZ cont'd

	<p><i>ATV Management:</i></p> <ul style="list-style-type: none">• ATV use will be permitted in areas of this zone, provided it is consistent with the management objectives.• ATV use will be prohibited in meadows during the summer.• Localized ATV closures may be required.• An education program will be initiated for ATV users.• Local level planning should recognize the difference between the potential impact of wheeled ATVs versus snowmobiles and differentiate between these two types of ATV use in the management plan for the RMZ. <p><i>HeliSki Operations</i></p> <ul style="list-style-type: none">• Heliskiing is an acceptable activity within this zone, provided management objectives can be met. The proposed caribou research program will examine concerns regarding heliskiing in caribou habitat.	<p>Recreation User Days</p>
--	---	---------------------------------

Objectives and strategies for the North Thompson Habitat RMZ cont'd

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> Maintain opportunities for mineral exploration and development while ensuring that these activities will be undertaken with sensitivity to caribou habitat. 	<p><i>Snowmobile Management</i></p> <ul style="list-style-type: none"> Snowmobile use is an acceptable use within the caribou RMZ subject to current agreements and guidelines. Existing snowmobile trails will be Designated under the appropriate Act. Any new snowmobile trails will be subject to review and must meet the objectives of the RMZ. Adequate signage will be provided to delineate area boundaries and rules. An education program will be initiated with snowmobile users to provide information on caribou management strategies, and the potential impacts of harassment by recreationists. Snowmobile use agreements will be enforced. <p><i>Mineral Exploration</i></p> <ul style="list-style-type: none"> Ensure that the resource management plan for this zone clearly conveys to all interested parties that responsible exploration and mining is an acceptable activity within this zone, including the research area, and that implementation of this plan does not deter investment confidence in this area. Maintain a timely, efficient and adequate Notice of Work referral process which is consistent with the provincial Notice of Work referral process. Extensive road building into currently unroaded areas will be permitted only when sufficient exploration demonstrates that road access is required for further development. 	<p>Levels of exploration spending</p> <p>Number of work programs etc.</p>

Objectives and strategies for the North Thompson Habitat RMZ cont'd

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> Maintain opportunities for mineral exploration and development while ensuring that these activities will be undertaken with sensitivity to caribou habitat. 	<p><i>Mineral Exploration (cont'd)</i></p> <ul style="list-style-type: none"> New road access will be co-ordinated with the access requirements of other users and will address special issues related to caribou management, such as seasonal use. Winter road use is to be minimized and, where possible, co-ordinated with the timing of winter logging activities. Winter roads will be closed immediately following project completion. Critical needs as identified in the Caribou research program will be accommodated in mineral exploration project approvals. The appropriate location of exploration access and timing of exploration activities will be designed to minimize impacts on caribou. Exploration site disturbance will be minimized in areas of sensitive caribou habitat such as meadow complexes. <p><i>Mine Development</i></p> <ul style="list-style-type: none"> Incorporate caribou management strategies into mine and access management planning through the provincial Mine Development Review Process or the Environmental Review Process (in preparation). 	<p>Levels of exploration spending</p> <p>Number of work programs etc.</p>

H2-H9. North Thompson Caribou Habitat / Recreation and Tourism

Zones H2 to H9 are North Thompson Caribou Habitat Zones which contain significant recreation and tourism values. Objectives and strategies for caribou habitat (H1) outlined in the previous section apply in these zones. Objectives and strategies for recreation and tourism values are outlined in this section and in Section 2.6, and will be addressed in further detail through local level planning for these areas. General Management objectives and strategies apply as baseline management.

For the following zones, refer to Section 2.6 for specific management objectives and strategies for recreation and tourism resources noted under the same geographic name:

H2	Alan Creek Caribou	H5	Clemina Caribou
H3	Bischoff Caribou	H6	North Thompson Glacier Caribou
H4	Bone Caribou	H7	Smoke Caribou

Specific objectives and strategies for North Blue and Thunder Caribou are listed below.

H8. North Blue Caribou

Current Uses: heli-skiing, mountaineering, viewing, ski-touring, snowmobiling

Management Category	Significant Opportunities	Management Strategies
• Backcountry	• Heli-skiing	• Local level planning will be used to resolve resource use conflicts.

H9. Thunder Caribou

Current Uses: heli-skiing, hiking, ski-touring, snowmobiling

Management Category	Significant Opportunities	Management Strategies
• Backcountry		<ul style="list-style-type: none"> • Has commercial backcountry recreation potential. • Local level planning will be used to resolve resource use conflict. • Commercial use of private cabin will be addressed by the local planning process.

H10. Battle Bluffs Wildlife Habitat

Battle Bluffs Habitat Resource Management Zone (H10) contains grassland and ponderosa pine / interior Douglas-fir ecosystems and provides habitat to a number of wildlife species, including California big horn sheep, mule deer, bats, rattlesnakes, and a number of bird species.

Resource development activities are permitted and encouraged in this zone. These will be carried out in a manner which respects the objectives for the RMZ and is in keeping with its long term desired state.

This zone contains the Dal 2 mineral claim. A strategy whereby the Dal 2 claim will be reviewed for inclusion in the adjacent Lac du Bois Protection RMZ after 10 years if the claim proves uneconomic is outlined in the objectives and strategies for Lac du Bois Protection RMZ, section 2.3.

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Maintain the natural diversity of plant and animal life. • Maintain natural stand attributes in managed forests. 	<ul style="list-style-type: none"> • Prescribed fire and/ or prescribed domestic livestock grazing may be used to maintain natural diversity of grasslands, and the PP and IDF zones. • Maintain all range plant communities in a late seral climax condition i.e. at or greater than 75% of the species composition and frequency of the natural plant community. • Prevent encroachment of conifers onto grasslands. • Manage for mixed age classes of PP and IDF, minimum 20 % old growth. • Allow natural spacing of conifers in PP and IDF zones. 	<p>Measure of flora and fauna diversity.</p> <p>Forest age class distribution</p>

Battle Bluffs Wildlife Habitat cont'd

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Maintain habitat for flammulated owls, for primary cavity nesters e.g. Flickers and for Blue Grouse. • Maintain forage and thermal cover for Mule Deer. • Maintain winter forage, lambing habitat and escape cover for California bighorn sheep. • Maintain bat and rattlesnake hibernacula. • Maintain and enhance the condition of identified riparian sites. 	<ul style="list-style-type: none"> • Selection timber harvesting will be allowed only to enhance wildlife habitats. • Identify all important cliff, talus and cave habitats and protect from any physical disturbances. • Manage for maximum livestock use of not more than 10% of the current year's growth of Saskatoon, Wild Rose, Willow and Red Osier. • Maintain snags and maturing grassland stage of succession. • Identify all important riparian sites and establish management objectives for their use. 	<p>Habitat diversity index</p> <p>No net loss of habitat of indicated species</p>

H11. Skull Wildlife Habitat

The ecology of the Skull Habitat RMZ (H11) is very diverse, containing landscape features that range from dry bunchgrass and Ponderosa Pine in the south to wet cedar and cool spruce sites in the north. This varied environment provides a diverse range of habitat conditions for wildlife.

The Skull Habitat RMZ contains one of the most important deer winter ranges in the LRMP. Other significant wildlife values include habitat for badger, spadefoot toad, bats, snakes, and various bird species.

Resource development activities are permitted and encouraged in this zone. These will be carried out in a manner which respects the objectives for the RMZ and is in keeping with its long term desired state. The northern part of the zone overlaps into Peterson Creek Community Watershed zone (W14b).

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Maintain the natural diversity of plant and animal life. • Maintain or enhance forage production and habitat requirements in critical deer winter range. 	<ul style="list-style-type: none"> • Manage as per Critical Deer Winter Range. Section 2.1.12.1 	Measure of flora and fauna diversity.

H12. Skwilatin Wildlife Habitat

Skwilatin Habitat RMZ (H12) lies to the east of Taweel Lake and includes the whole of Skwilatin Mountain. It represents the southernmost limit of sub-boreal spruce in the province. This RMZ contains high fisheries values. It also provides important habitat for moose, wolves and fur-bearers. It is an important migration corridor and winter range for Mule Deer.

Resource development activities are permitted and encouraged. These will be carried out in a manner which respects the objectives for the RMZ and is in keeping with its long term desired state.

Objectives	Strategies	Indicators
<ul style="list-style-type: none"> • Maintain the natural diversity of plant and animal life. • Maintain or enhance forage production and habitat requirements in critical moose winter range. 	<ul style="list-style-type: none"> • Manage as per Critical Moose Winter Range. Section 2.1.12.2 	Measure of flora and fauna diversity.

H13-H14. Wildlife Management Areas

There are Wildlife Management Areas at Dewdrop-Rousseau adjacent to the Battle Bluffs Habitat RMZ, and at Skull, within the Skull Habitat RMZ. These will continue to be managed as Wildlife Management Areas by the Ministry of Environment, Lands and Parks.

2.6 Special Resource Management - Recreation and Tourism

Special Resource Management - Recreation and Tourism Resource Management Zones are areas where there are significant opportunities for recreation and tourism management. Other resource development will occur in these zones.

Although the management objectives of recreation and tourism often overlap in these resource management zones, it is emphasized that tourism and public recreation are two distinct entities. Tourism is recognized by the provincial government as a resource industry and it has its own needs and interests in these areas. In the following section, recreation and tourism are included together where applicable and, when necessary, are made distinct.

Management for recreation and tourism occurs along a spectrum of recreational use. At one end of this spectrum are the high use areas. At the other end of the spectrum are areas where there is little evidence of human activity. Management objectives and strategies change as one moves along the recreation spectrum.



Within Special Resource Management - Recreation and Tourism RMZs there are four categories of recreational activity: Higher Use, Natural Environment, Backcountry, and Remote. Of these, Higher Use is the most accessible and most frequently used and Remote is the least developed and used. Each of these categories has its own set of objectives and strategies, which are outlined below. Recreation and Tourism areas in the LRMP are shown in Figure 11 and listed in the Table below:

Recreation and Tourism Resource Management Zones

R1,H2	Alan Creek	R5,H5	Clemina	R9	Taweel
R2,H3	Bischoff Lakes	R6,W7	Lac Le Jeune	R10	Thompson Rivers
R3	Blustery	R7,H7	North Thompson Glacier	R11	Tod Mountain
R4,H4	Bone	R8,H8	Smoke	R12	Tod Mountain (controlled rec area)

2.6.1 Resource Management Objectives and Strategies

Primary objectives for Recreation and Tourism Resource Management Zones are to:

- maintain and enhance opportunities for a diverse range of recreational values and uses across the biophysical settings of the zones; and,
- maintain and enhance tourism opportunities

Resource development activities such as logging, mineral exploration, grazing, and mining are permitted and encouraged, subject to provincial guidelines and standards. These activities will be carried out in a manner which respects the primary values for which each zone is identified and is in keeping with the long term desired state for the RMZ. General management objectives and strategies apply as baseline management in this zone.

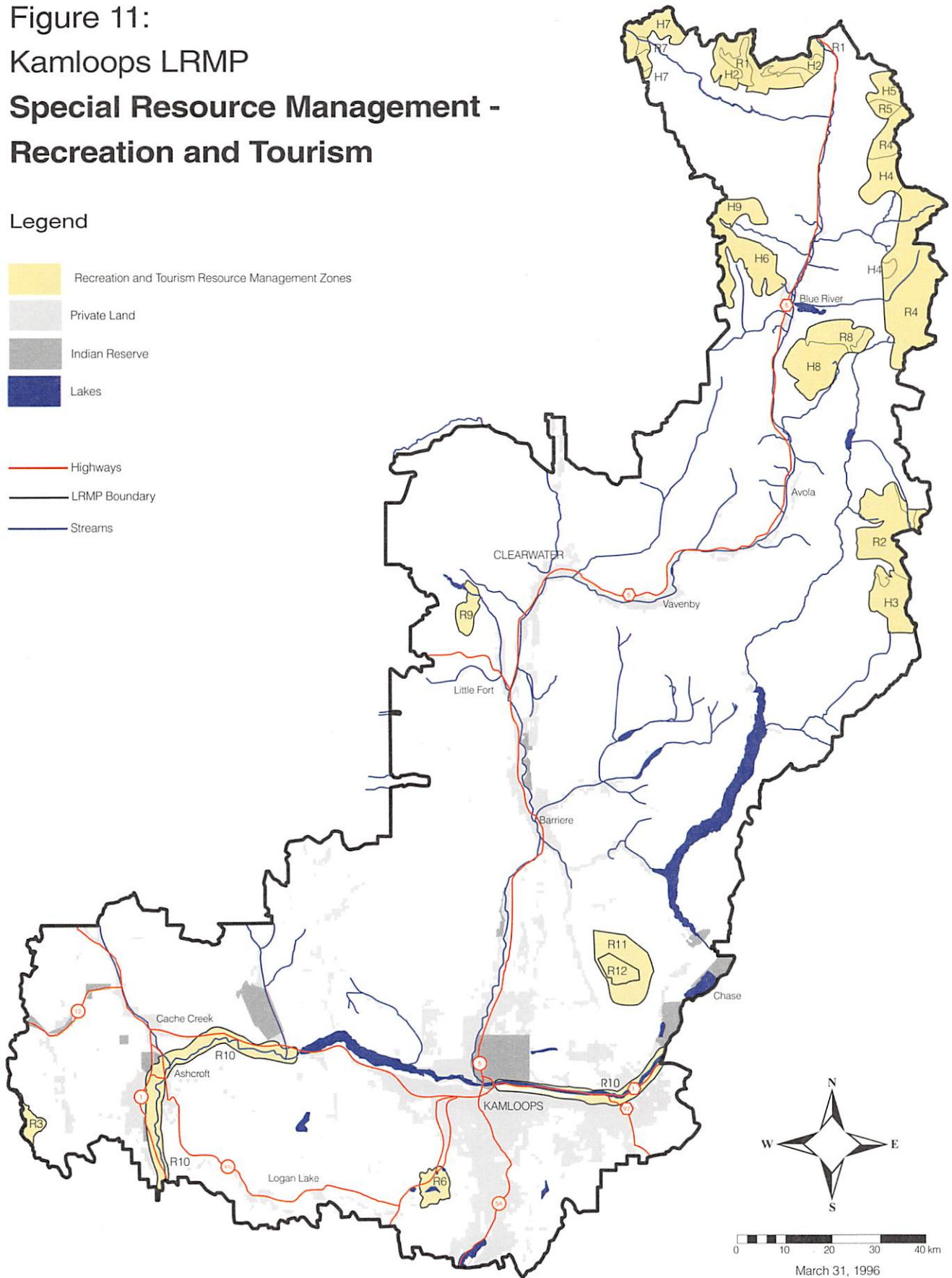
The following table outlines the objectives and strategies for all three categories of Special Resource Management Recreation and Tourism Resource Management Zone.

Objectives	Strategies
<ul style="list-style-type: none"> • Maintain or enhance opportunities for a diverse range of tourism and/or recreational values and uses across the biophysical settings of these zones. 	<ul style="list-style-type: none"> • Undertake local level planning which will include some or all of the following: <ul style="list-style-type: none"> a/ an inventory of opportunities and features; b/ detailed Visual Quality Objectives; c/ mapping of wildlife and biodiversity values; d/ defined and mapped long term operational areas for tourism and/or recreation; e/ defined and mapped long term operational areas for other resource uses; and, f/ access management. • Where deemed necessary and subject to the development and annual review of the area management plan, both independent public and commercial public use may be managed to preserve both the environment and experience in a RMZ.

Figure 11:
 Kamloops LRMP
**Special Resource Management -
 Recreation and Tourism**

Legend

- Recreation and Tourism Resource Management Zones
- Private Land
- Indian Reserve
- Lakes
- Highways
- LRMP Boundary
- Streams



Objectives and Strategies for Recreation and Tourism Zones cont'd

Objectives	Strategies
<ul style="list-style-type: none"> • Facilitate tourism development if appropriate to the objectives of each RMZ • Maintain viewscales in recreation and tourism areas to a standard that does not detract from the recreational enjoyment of users. • Maintain a level of access that meets the objectives of each Recreation and Tourism RMZ. • Maintain a level of motorized recreation opportunity if appropriate for each RMZ. 	<ul style="list-style-type: none"> • Match tourism facilities and development with intended recreational experience of the RMZ. • Visual Quality Objectives will apply to all users. • Visual Quality Objectives will be established in accordance with Ministry of Forests Visual Landscape Management and directives for Visually Sensitive Areas (Section 2.1.14) • Visual Quality Objectives will be reviewed and approved through local level plans. • Road and trail construction, maintenance and deactivation and other surface disturbances and construction will be undertaken in a manner that meets the management objectives of each recreation and tourism zone, in accordance with direction from an approved plan, local process, or enhanced referral. • Identify type and quantity of motorized recreation use allowed in each RMZ. • Local level plans will address motorized and non-motorized recreation use. • The difference between the environmental impact of snowmobiles and wheeled vehicles must be considered when zoning for regulation of motorized vehicle use during local level planning.

2.6.1.1 Higher Use Recreation and Tourism Zones

Higher Use Recreation and Tourism Zones are areas that will be intensively managed for recreation and tourism. Access is by well-maintained roads. There may be strong evidence of human activities and interactions and facility development. The natural environment may be substantially modified. In some cases a Higher Use Recreation and Tourism RMZ may be a small area of intensive facility development within a larger Special Resource Management RMZ. Because of the intensity of use in these areas, some may have to be managed to reduce the impacts of use.

The goal of Recreation and Tourism Resource Management Zones is to provide easily accessible tourism and recreation opportunities.

Resource development activities such as logging, mineral exploration, grazing, and mining are permitted activities, subject to provincial guidelines and standards and will be carried out in a manner which respects the primary values for which each zone is identified and is in keeping with the long term desired state for the RMZ.

Objectives and strategies for Higher Use Recreation and Tourism RMZs are shown in the following table:

Objective	Strategies	Indicators
<ul style="list-style-type: none"> • Provide easily accessible tourism and recreation opportunities. • Maintain motorized recreation opportunities, where appropriate. 	<ul style="list-style-type: none"> • Maintain a diverse forest stand structure, species and age class distribution. • Intensive use trails and facilities may be developed. • Identify type and quantity of motorized recreation use allowed in each RMZ. • Local level plans will address motorized and non-motorized recreation use. 	<p>Visitor days</p> <p>Recreation activity days</p>

2.6.1.2 Natural Environment Recreation and Tourism Zones

These can be roaded two-wheel drive or four-wheel drive areas or non-roaded areas. While there may be evidence of human activities and development, Natural Environment RMZs are primarily managed to recognize and maintain the areas' recreational attributes, including a natural quality of environment.

There may be small areas of intensive facility development within these RMZs. Where intensive development and management occur in a Natural Environment RMZ, this is addressed under the specific management objectives and strategies for that RMZ.

Objectives and strategies for Natural Environment Recreation and Tourism RMZs.

Objective	Strategies
<ul style="list-style-type: none"> • Provide recreation and tourism opportunities in a natural environment. 	<ul style="list-style-type: none"> • Maintain diverse forest stand structure, species, and age class distribution. • Promote natural forest conditions through application of the appropriate silviculture system. • Low to moderate use trails and facilities may be developed. • Develop an access management plan to maintain the appropriate access.

2.6.1.3 Backcountry Recreation and Tourism Zones

Backcountry areas are generally non-roaded areas, although they may have some two-wheel drive and four-wheel drive roads and trails. There may be some evidence of human interactions and facility development.

Objectives and strategies for Backcountry Recreation and Tourism RMZs.

Objective	Strategies
<ul style="list-style-type: none"> • Maintain the natural character of the area, and provide opportunities for recreation / tourism in a backcountry / wilderness setting 	<ul style="list-style-type: none"> • Provide opportunities for development of backcountry facilities. • All roads will be built using best management practices which minimize road clearing widths. Wherever possible, roads will be closed and reclaimed following completion of activities. • Maintain a diverse forest stand structure, species, and age class distribution. • Promote natural forest conditions through application of the appropriate silviculture system.

2.6.1.4 Remote Recreation and Tourism Zones

Remote Recreation and Tourism RMZs are large areas where there are currently no roads, and where there is little evidence of human activity. The long term status of the area is characterized by these conditions, however resource development activities are permitted and will be carried out in a responsible fashion in keeping with these long term objectives.

Objective	Strategies
<ul style="list-style-type: none">• Maintain predominantly primitive conditions across the landscape to provide recreation and/or tourism opportunities.	<ul style="list-style-type: none">• Extractive uses are permitted providing they are consistent with the objectives of the RMZ.• Access management plans will be consistent with the objectives of the RMZ.• Emphasis on locating facilities outside of this area• Encourage natural ecosystems and disturbance regimes to function where possible.• Assess the impacts of use and facility development for each area.

2.6.2 Area-Specific Objectives and Strategies

R1. Alan Creek

Current Uses: heli-skiing, hiking, ski-touring, snowmobiling, hunting

Management Category	Significant Opportunities	Management Strategies
<ul style="list-style-type: none"> • Backcountry 	<ul style="list-style-type: none"> • Regionally-significant snow-mobiling area, heli-skiing. 	<ul style="list-style-type: none"> • Has commercial backcountry recreation potential. • Local level planning will be used to resolve resource use conflict.

R2. Bischoff

Current Uses: hiking, snowmobiling, ski-touring

Management Category	Significant Opportunities	Management Strategies
<ul style="list-style-type: none"> • Backcountry • Remote 	<ul style="list-style-type: none"> • Commercial tourism opportunities. 	<ul style="list-style-type: none"> • The Bischoff RMZ is to be managed for predominantly Remote recreation and tourism, with some Backcountry management. The local planning process will determine the boundary of the Remote and Backcountry sections of the RMZ in consideration of areas that are suitable for commercial backcountry development and in keeping with the objectives of the RMZ.

R3. Blustery

Current Uses: trail riding, hunting, viewing, hiking, First Nations plant gathering

Management Category	Significant Opportunities	Management Strategies
<ul style="list-style-type: none">• Backcountry	<ul style="list-style-type: none">• Commercial potential for trail rides.	<ul style="list-style-type: none">• Priority for non-motorized access.

R4. Bone

Current Uses: heli-skiing, mountaineering, hunting

Management Category	Significant Opportunities	Management Strategies
<ul style="list-style-type: none">• Remote	<ul style="list-style-type: none">• Opportunity for a remote wilderness recreation experience.	<ul style="list-style-type: none">• No area-specific management strategies have been specified at this time.

R5. Clemina

Current Uses: snowmobiling, hiking, skiing (Canoe Creek), hunting

Management Category	Significant Opportunities	Management Strategies
<ul style="list-style-type: none">• Backcountry	<ul style="list-style-type: none">• Regionally significant snowmobile area; summer hiking trails.	<ul style="list-style-type: none">• Commercial opportunities will be considered.• Any use must be compatible with snowmobiling interests.

R6. Lac le Jeune

Current Uses: ice fishing, cross-country skiing, mountain biking, hiking, hunting, motorcycle ice racing (Stake Lake), orienteering, wildlife viewing

Management Category	Significant Opportunities	Management Strategies
<ul style="list-style-type: none"> Natural Environment 	<ul style="list-style-type: none"> A variety of quality recreational opportunities readily accessible from Kamloops and the Local Mainland. 	<ul style="list-style-type: none"> Manage to maintain the integrity of recreational quality and the natural environment. Local level planning will consider separating non-motorized from motorized recreation trails to preserve the experience. Management for both Enhanced and Special Resource Recreation and Tourism RMZs for Lac le Jeune will be addressed by the same local planning process. Encourage Merritt Forest District to consider planning for the area adjacent to the RMZ. Have one agency manage recreation use in both Enhanced and Special Resource RMZs.

R7. North Thompson Glacier (including McAndrew Lake)

Current Uses: heli-skiing, hiking, ski-touring, hunting

Management Category	Significant Opportunities	Management Strategies
<ul style="list-style-type: none"> Remote 	<ul style="list-style-type: none"> Opportunity for a remote wilderness recreation experience. 	<ul style="list-style-type: none"> No area-specific management strategies have been specified at this time.

R8. Smoke

Current Uses: heli-skiing, hiking, ski-touring

Management Category	Significant Opportunities	Management Strategies
<ul style="list-style-type: none">• Backcountry	<ul style="list-style-type: none">• Heli-skiing.	<ul style="list-style-type: none">• No area-specific management strategies have been specified at this time.

R9. Taweel

Current Uses: fishing, hiking, wildlife viewing, hunting.

Management Category	Significant Opportunities	Management Strategies
<ul style="list-style-type: none">• Natural Environment	<ul style="list-style-type: none">• No significant opportunities have been identified at this time.	<ul style="list-style-type: none">• Key recreation participants or tourism stakeholders will be responsible for preparing a Commercial Backcountry Recreation Management Plan for the area.• Other stakeholders will be consulted during the development of the management plan.• The desired outcome of having this type of management for these lakes is an improved communication plan and accountability by all involved parties, in order to maintain an intact recreation and tourism "package" while facilitating continued harvesting.

R10. Thompson and South Thompson Rivers

Current Uses: fishing, canoeing, rafting, scenic corridor, water source, First Nations interests, "wild" features

Management Category	Significant Opportunities	Management Strategies
<ul style="list-style-type: none"> Natural Environment 	<ul style="list-style-type: none"> No significant opportunities have been identified at this time. 	<ul style="list-style-type: none"> A development plan is needed to coordinate uses and interests, including existing plans. Public access is an issue. Establish management objectives for riparian areas.

Note: this RMZ includes the portion of the Thompson River that runs through Kamloops and Kamloops Lake.

R11. Tod Mountain - outside the Controlled Recreation Area

Current Uses: hunting, fishing, hiking, snowmobiling, cross-country skiing, ATVing

Management Category	Significant Opportunities	Management Strategies
<ul style="list-style-type: none"> Natural Environment 	<ul style="list-style-type: none"> This RMZ receives a high number of user days on an annual basis due to access and proximity to Kamloops. 	<ul style="list-style-type: none"> Maintain multiple use and reasonable, viable public access. Provide opportunity for special resource commercial development. Reduce the current no-staking reserve in the RMZ. The local planning process will be used to resolve any conflict between commercial tourism and other users. Management for both Enhanced and Special Resource Recreation and Tourism RMZs for Tod Mountain will be addressed by the same local planning process.

R12. Tod Mountain Controlled Recreation Area

Current Uses: downhill skiing, cross-country skiing and ski-touring, hiking, mountain biking, flower viewing

Management Category	Significant Opportunities	Management Strategies
<ul style="list-style-type: none">Higher use	<ul style="list-style-type: none">High value to users because of access and proximity to Kamloops	<ul style="list-style-type: none">Prohibit wheeled motorized recreation access to alpine areasAmend the current no staking reserve to reflect the objectives of the RMZ.Maintain multiple use and reasonable, viable public access subject to the pre-existing development agreement.A local level planning process will be used to resolve any conflict between commercial tourism and other users.Management for both the Higher Use and Natural Environment Zones for Tod Mountain will be addressed by the same local level planning process.

R13. Lakes Areas

The following lakes will be assessed for their recreation and tourism values to determine the area that will form the basis for a Natural Environment Recreation and Tourism Resource Management Zone: Akehurst, Caverhill, Latremouille, Lynn, Meadow, and Thuya.

Management Category	Significant Opportunities	Management Strategies
<ul style="list-style-type: none">Natural Environment	<ul style="list-style-type: none">No significant opportunities have been identified at this time.	<ul style="list-style-type: none">Key recreation participants or tourism stakeholders will be responsible for preparing a Commercial Backcountry Recreation Management Plan for the area.Other stakeholders will be consulted during the development of the management plan.The desired outcome of having this type of management for these lakes is an improved communication plan and accountability by all involved parties, in order to maintain an intact recreation and tourism "package" while facilitating continued harvesting.

3.0 Implementation

The Kamloops LRMP is a government approved higher level plan. It is a working document that will be implemented by all relevant government agencies through agency-specific management activities, local level plans, resource development permits and land dispositions. The priority areas for local level planning are outlined in section 3.2.2. In the absence of local level plans, all resource-specific development plans or permits will conform to the resource management zone objectives and strategies described in this plan.

All local level plans will include a section that describes the linkages to the Kamloops LRMP. This will include an explanation of how the local level plan meets the objectives and implements the strategies outlined in this plan. Conversely, it is recognized that the resource management zone objectives and strategies in this plan may be amended in the future based on feedback from local level plans (see section 4.2.1, Plan Updates)

3.1 Roles and Responsibilities

3.1.1 LRMP Follow-up Committee (short-term)

A follow-up committee, similar in structure to the LRMP team, was mandated with addressing three outstanding issues:

- establishing Enhanced Resource Development Zones;
- reviewing the application of the Forest Practices Code *Biodiversity Guidebook*; and,
- identifying small areas to protect outstanding special natural features.

The committee's work was completed by December 31, 1995 and was submitted to government as an addendum to this Plan. Addendum dates are noted at the bottom of applicable pages.

3.1.2 LRMP Follow-up Committee (long-term)

A long term Follow-up Committee will be formed, similar in structure to the LRMP team. This committee will meet quarterly to annually as considered appropriate by the team, to address the following:

- review and provide input to the Annual Monitoring Report;
- ensure the spirit and intent of the Plan is implemented and to provide advice to agencies on Plan implementation and dispute resolution;
- review the impacts of preliminary landscape unit biodiversity emphasis options and ensure that they are consistent with stated objectives and strategies in section 2.1.3.1, and;
- review and make recommendations on Goal Two areas that were deferred by the short-term Follow-up Committee (eg. fossil sites and areas referred back to local level planning teams)

3.1.3 Interagency Management Committee

The responsibilities of the Interagency Management Committee are as follows:

- co-ordinate and ensure implementation;
- monitor compliance by agencies and resource users;
- provide interpretation on plan management objectives and strategies to assist with plan implementation;
- review and provide recommendations on proposed amendments;
- prepare an annual monitoring report on plan implementation; and,
- resolve the regional overlap of Emar and Bonaparte protected areas, through discussions with the Cariboo-Chilcotin IAMC and Regional Resource Board.

3.1.5 First Nations

Government is committed to work with First Nations on a government-to-government basis. The LRMP will be without prejudice to aboriginal rights and treaty negotiations. First Nations will be encouraged to play a direct role in the implementation and monitoring of the Plan.

Training and skills development related to the LRMP will be available for First Nations.

3.1.6 Public

It is recognized that the public is an important contributor to the effective implementation and monitoring of the plan in partnership with the different government agencies and First Nations.

3.2 Local Level Planning

Local level plans may be a wide range of local or more detailed planning processes including, but not limited to landscape unit objectives, local resource plans, coordinated access management plans and protected area management plans. Where there is no local level planning process for a defined area, plans are to be developed by the appropriate agencies and will provide for public review.

3.2.1 Communication with Local Level Planning

It is important to ensure mutually constructive communication and information exchange between the Kamloops LRMP and local level planning processes and to minimize duplication of effort. Agencies should make early efforts to ensure two-way communication with existing local level planning processes.

3.2.2 Criteria that Apply to All Local Level Plans

- All parties with a key interest or stake in the plan must be invited and encouraged to participate.
- Strive for consensus through an interest-based decision making process.
- Ensure all local level plans are consistent with the LRMP.
- VQO objectives are to be addressed in all local level plans.
- Address resource user conflicts.

3.2.3 Priorities for Local Level Planning

The following broad geographic areas will be given priority for refining the direction of the LRMP or for completing local level plans:

- Bonaparte;
- Guichon / Lac le Jeune;
- Lac du Bois;
- Nehalliston (includes Caverhill);
- Raft River;
- Mad River;
- Hat Creek
- Louis Creek; and,
- Dunn (includes Dunn Canyon area).

3.3 Public Education

- Educate the public with regards to the content of LRMP recommendation, the justification for proposed strategies and potential economic impacts of those strategies (e.g. educate people as to how VQO's are developed and the impacts of managing for visual quality).
- Agencies will provide increased communication to the public with regards to procedures for designating Community Watersheds. A recommended approach is to include this information on annual water bills.
- Educate motorized recreationists about appropriate ATV and other motorized recreational use.
- Educate the public regarding respect and care for the land base when participating in recreational activities. This task should be the responsibility of the commercial and non-commercial groups using an area.

3.4 Inventory and Research Priorities

- Research into public perceptions of visual quality.
- Consolidate existing research, conduct a gap analysis and prioritize new research with regard to the impact of recreational activity on resources.
- Establish research and monitoring initiatives for the increasing and changing demands for recreation and tourism.
- Evaluate the impact of human disturbance and access on wintering moose
- Initiate a research program to improve our understanding of the behaviour and biology of caribou populations, and the effect of resource development on caribou habitat.
- Undertake research to study the effects of land-use activities on southern interior stream ecosystems.
- Evaluate the efficacy of specific management strategies (e.g. Forest Practices Code Regulations) in protecting fish habitat.
- Conduct stream inventories and assessments to better document the distribution and productivity of fish populations within the LRMP with an emphasis on chinook and coho salmon and bull trout.
- Continued inventory of naturally-occurring grasslands.
- Establish research initiatives to address the issue of conifer growth encroaching on grasslands.
- Conduct research into management practices that maintain and enhance healthy grassland ecosystems.
- Conduct research into range and integrated resource management issues such as agro-forestry, tree-grass-cattle issues, cattle-water issues, cattle-wildlife issues and integrating multiple uses on crown range land.
- Geoscience surveys to improve knowledge of mineral resource endowment.
- Implement an adaptive management research program into biodiversity to ensure overall objectives for biodiversity are achieved in the long term.
- Undertake research on the impacts of implementing biodiversity strategies.
- Undertake research to update forest inventory information and provide for the ability to maintain current database information at all times.

3.5 Economic Transition

This transition strategy provides an important means for addressing the following plan goals: social and economic stability and vitality of local communities; no net job loss; and, no reduction in the overall level of commerce in the LRMP area as a result of the plan. This strategy provides a commitment to working towards achieving positive transition to environmental sustainability and economic diversity.

The transition strategy is based on the principles of *fairness, equitability, openness, and timeliness*. Timeliness refers to the need to phase in the plan such that impacts are optimized over time. The principle of openness means that anyone can participate in the decision-making process. The principle of equity dictates that equal treatment to all parties will apply. Finally, the principle of fairness refers to impacted individuals, communities, commerce and to taxpayers as a whole. In accordance with the principle of fairness, this strategy recognizes that monetary assistance may be required. Compensation will be in accordance with provincial policy.

To achieve community and worker stability, the government has opened a Forest Renewal Office in Kamloops, and is sponsoring prospectors' training grants and geoscience studies. In addition, the government has approved two projects as part of the transition strategy: a Grazing Enhancement Fund and a Community Skills Centre.

3.5.1 Grazing Enhancement Fund

To ensure the continued health of the ranching industry, a \$1.2 million Grazing Enhancement Fund will be established to maintain or enhance cattle grazing opportunities, range management and to meet conservation needs. The fund will be administered by the Ministry of Agriculture, Fisheries and Food.

3.5.2 Community Skills Centre

In order to retrain workers, a Community Skills Centre will open in Clearwater. This will ensure all workers have the skills necessary to keep pace with their current job or to take advantage of new job opportunities. This project will involve a wide range of regional bodies including the Thompson-Nicola Regional District, the Clearwater Improvement District, and the University College of the Cariboo. Implementation of the skills centre will be the responsibility of the Ministry of Skills, Training and Labour.

Other potential transition measures have been identified by the Kamloops LRMP team, and are included verbatim in Appendix 3: Potential Measures to Offset Possible Plan Impacts.

4.0 Monitoring and Amendment

An annual monitoring report on plan implementation will be prepared by the Kamloops Interagency Management Committee. This report will state how the objectives and strategies outlined in the LRMP are being met through agency-specific resource management activities, local level planning and resource development plans or permits.

Local level planning may, through more detailed mapping, research or public involvement, recommend updates to the Land and Resource Management Plan. These proposed updates will be contained in the monitoring report. The Kamloops Interagency Management Committee reviews and approves the plan updates.

4.1 Monitoring

4.1.1 Annual Report

By June 30, 1996 and annually thereafter the Interagency Management Committee will prepare an LRMP Monitoring Report. It will include:

- actions taken to conform with plan direction;
- compliance with plan requirements; and,
- instances of non-compliance and actions that will be taken to ensure compliance.

The report will collate available indicators on how well the plan is meeting stated objectives. Each agency will be responsible for collating information, revising the indicators as necessary, and raising issues that need to be addressed.

4.1.2 Annual Meeting

Following release of the Monitoring Report, the Interagency Management Committee will hold an annual meeting to review the report and solicit public comment. The meeting will be an opportunity for the public to raise issues that may require update or amendment of the plan.

4.1.3 Indicators for Monitoring Plan Impacts

Biophysical indicators for monitoring the impacts of resource management objectives and strategies are noted throughout this plan. Potential social and economic indicators were also noted in *Kamloops LRMP Volume I: Recommendations*. Indicators may be refined by agencies as monitoring occurs.

4.2 Update and Amendment

4.2.1 Plan Updates

Plan updates are any minor changes to the plan. Minor changes include:

- revision of wording;
- revised priorities for local level plans and watershed assessments;
- small changes to boundaries of Resource Management Zones (max 500 ha or 5% of the RMZ area, whichever is the lesser amount) suggested by local level plans
- refinements to objectives and strategies suggested by local level plans; and,
- changes required to make the plan conform with provincial laws, regulations or policies.

The Monitoring Report will contain proposed plan updates. The IAMC will approve plan updates. All changes to the plan will be documented and circulated to the public interest groups and tenure holders

4.2.2 Unscheduled Amendments

An unscheduled amendment is a major or significant change to the plan including:

- large changes to Resource Management Zone boundaries (500 ha or more);
- major revisions to targets set out in the plan.

The public or agencies may identify issues that require an unscheduled amendment. These will be identified in the Annual Report or at an annual meeting. When issues arise that require a major amendment, the IAMC will establish the schedule and Terms of Reference for the amendment process, consistent with existing legislation and regulations.

A social, environmental and economic impact assessment will accompany any major amendment process. The public will be involved in the plan amendment process.

4.2.3 Scheduled Amendments

A scheduled amendment will review the entire plan, and will examine significant revisions. The process to amend the plan will begin eight years following plan approval. 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.

4.3 Interpretation and Appeal

From time to time, the public or agencies may become concerned about how the plan is being interpreted or about specific practices that are occurring. In all instances, the concerns will be dealt with in the same spirit that the plan was developed.

4.3.1 Appeal of Resource Management Practices

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

4.3.2 Interpretation of Land Use Objectives and Strategies

Where a concern is raised over land use objectives and strategies, the concern will be addressed directly to the affected agency(ies). The responsible manager will respond to the concern in writing. 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 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 plan.

4.3.3 Other Concerns

Any further concerns will be addressed by a request for a plan update or amendment.

Glossary of Terms

Adaptive management - A process of refining management tools that includes setting management objectives specifically designed to answer management questions, where monitoring the effectiveness of the tool is an integral part of the process.

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, spend much of their lives at sea, and return to freshwater to reproduce.

Animal unit month (AUM) - The amount of forage required to support one cow-calf pair, or equivalent, for one month.

Allowable annual cut (AAC) - The volume of timber approved by the chief forester to be harvested annually.

Appraisal fencing - Funding for fencing provided in situations where logging activities breach the natural barriers between grazing tenure holders. Previously funding was provided for appraisal fencing through the Interior Stumpage Appraisal System.

Aquifer - Naturally occurring groundwater source.

ATV - All-terrain vehicle.

Benchmark - Areas where cattle use would not be permitted in order to compare the impact of grazing on adjacent areas.

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 ecosystem classification system - A hierarchical classification system having three levels of integration--regional, local, and chronological--and combining climatic, vegetation, and site factors.

Biogeoclimatic zone - A geographic unit with a broadly homogenous macro climate.

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

Community Watershed - Any watershed defined as such in the Forest Practices Code.

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.

CORE - BC Commission on Resources and Environment, instructed to develop for public and government consideration a British Columbia-wide strategy for land use and related resource and environmental management.

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.

Co-ordinated Access Management Plan (CAMP) - A strategy, prepared through the co-ordinated involvement of government officials, resource users, recreationists, and other interested publics, designed to manage access of all users into a specified area.

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.

Ecosystem network - A planned landscape zone that serves to maintain or restore the natural connectivity within a landscape unit. A Forest Ecosystem Network consists of a variety of fully protected areas, sensitive areas, classified areas and old-growth management areas.

Esker - Hilly, typically sinuous formation of sediments deposited by meltwater contained in channels flowing beneath a glacier.

Floodplain - A level, low-lying area adjacent to streams that is periodically flooded by stream water. It includes lands at the same elevation as areas with moving water, such as active or inactive flood channels, recent fluvial soils, sediment on the ground surface or in tree bark, rafted debris, and tree scarring.

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) - the *Forest Practices Code of British Columbia Act* (1995), Regulations, and Guidebooks that govern forest practices in British Columbia.

Forest Renewal Plan - A recently developed provincial strategy to: renew the land and keep the forests healthy; invest in the forest lands which generate much of BC's wealth; ensure sustainable use and enjoyment of the forests; ensure the continued availability of good forest jobs; and ensure the long-term stability of communities that rely on the forests.

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

GDP - Gross domestic product.

Geographic Information Systems (GIS) - Computer-generated techniques for storing, managing, presenting, and interpreting a wide variety of data on a spatial medium.

Green-up - The process of re-establishing vegetation following logging to achieve specific management objectives (for example, rate of harvest control, visual cover for wildlife, visual quality, or hydrological recovery). The most common standards of green-up are:

- **green-up** - the minimum height and stocking levels which trees (as described in either a Silviculture Prescription or regional stocking standards) on a cutblock must achieve before an adjacent stand of timber may be harvested;
- **visually effective green-up** - the stage at which regeneration on a cutblock is perceived by the public as being newly established forest. The forest cover on the cutblock must generally be of sufficient height to block stumps, logging debris, and bare ground from view. Once achieved, an adjacent stand of timber is available for harvest.
- **hydrological green-up** - the point at which a second-growth stand of timber will hydrologically resemble old-growth in terms of timing and quantity of water yield.

Indicators of ecosystem health - Ecosystem components, processes, and functions used by managers to assess its viability.

Integrated Resource Management (IRM) - The identification and consideration of all resource values--including social, economic, and environmental needs--in land-use decision making. It focuses on resource and land management, and is based on a good knowledge of ecological systems, the capability of land, and the mixture of possible benefits.

Integrated Watershed Management Plan (IWMP) - Plans prepared for a community watershed to guide the management of land and resources.

Interagency Management Committee (IAMC) - Administrative body struck at the regional level to determine LRMP boundaries, project priorities, and funding. Boundaries and priorities may be guided by regional plans. These committees appoint an interagency planning team, approve the terms of reference for the plan, review and make recommendations on all planning products, and play a role in dispute resolution. The role of the interagency management committees is in addition to their 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.

Interbasin release - The human-induced transfer of all or part of the streamflow from one drainage basin into another, in order to increase streamflow in the latter drainage basin.

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

Landscape level planning - Planning undertaken for the co-ordination and integration of resource conservation and development activities, and to provide for the maintenance of biodiversity, in landscape units.

Landscape units - Delineated on the basis of physiographic and/or ecological features, such as watersheds. Generally between 5,000 and 100,000 hectares in size. They serve as a focal point for the co-ordinated 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. Landscape units are formally identified in the Forest Practices Code as a higher level plan. For the Kamloops LRMP, objectives for landscape units will be consistent with the management direction provided by a resource management zone.

Late winter habitat (for caribou) - Caribou habitat that is used for foraging and travel during mid and late winter, when the snow pack allows caribou to feed on arboreal lichens.

Local Resource Use Plan (LRUP) - A strategic direction for a portion of a timber supply area or tree farm license that provides management guidelines for integrating resource use in the area.

Long Range Sustainable Yield (LRSY) - A measure of the long-run timber productivity, considering harvesting and regrowth, in a specified area.

LRMP Planning Team - Consists of representatives from provincial and federal government agencies and from stakeholder groups--representatives of the community, industry, labour, tenure holders, recreational users, and environmentalists--and is the group responsible for developing the LRMP.

Multiple Account Analysis (MAA) - A technique used to measure and assess all of the costs and trade-offs--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.

Official Settlement Plan (OSP) - Until recently, the only type of plan, similar to OCPs, that regional governments (such as the Thompson-Nicola Regional District) could prepare. However, regional districts, including TNRD, now undertake official community planning as defined above.

Pre-Harvest Silvicultural 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.

Person year (PY) - Unit equivalent to one person employed for one year.

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

Rangelands - A broad category of land characterized by native plant communities that are often associated with grazing. Rangelands are managed by ecological rather than agronomic methods.

Range Use Plans - An operational plan that describes the range and livestock management measures that will be implemented to ensure that range resources are protected and that the management objectives for other identified resource values are achieved.

Range condition - The present plant community and soil conditions relative to the potential natural "climax" plant community a particular area is capable of. "Climax" is the highest ecological successional stage of a natural plant community capable of perpetuation under prevailing climatic and soil conditions. "Excellent" range condition is a "climax" plant community and "poor" range condition consists of over 60% weedy non-native plant species.

Recreation user day (RUD) - Unit to measure the intensity of recreation use in a specified area-- each RUD represents one day spent by one person in the specified area.

Red-listed species - Candidate species for legal designation by the BC 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 (RMZs) - Provide a tool for implementing government's social, economic, and environmental objectives for land and resource use within the province. RMZs identify provincially, regionally or sub-regionally 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. Special Resource Management to protect caribou habitat). Resource management zones are identified as a higher level plan in the BC *Forest Practices Act*.

Resource unit - Land areas for which resource management strategies have been prepared that address specific issues. *However, resource units are no longer used by the Kamloops Land and Resource Management Planning initiative.*

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 - Sensitive areas are 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 viewsapes or critical wildlife habitat.

Seral stages - The various communities that together make up a sere--the 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.

Total Resource Plan (TRP) - A process that designs long-term forest development and guides timber harvesting over an entire area, such as a watershed, and confirms how approved objectives for identified resource values will be achieved on the ground.

Transitional habitat (for caribou) - Caribou habitat that is 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 silvicultural systems.

Viable populations - A self-sustaining population with a high probability of survival despite the foreseeable effects of demographic, environmental, and genetic stochasticity, and of natural catastrophes.

Viewshed - A physiographic area composed of land, water, biotic, and cultural elements which may be viewed and mapped from one or more viewpoints and which has inherent scenic qualities and/or aesthetic values as determined by those who view it.

Visual absorption capability (VAC) - The relative capacity of a landscape to absorb land-use alterations and maintain its visual integrity.

Visual quality objective (VQO) - A resource management objective that reflects the desired level of visual quality based on the physical characteristics and social concern for 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 license - Similar to a tree farm license but on a smaller scale, it allows for small-scale forestry to be practised in a described area (Crown and private land) on a sustained or perpetual yield basis.

Appendix 1: Priorities for Watershed Assessment

Watershed	Issues
Fage Creek	Domestic water
Finn Creek	Salmon
Gold Creek	Fisheries
Huihill Creek	Fisheries
Scotty Creek	Domestic water
Raft River	Fisheries
Upper Adams	Fisheries
Barriere River	Fisheries, domestic water
Otter Creek	Fisheries
Bonaparte River	Fisheries, domestic and irrigation water
Deadman River	Fisheries, domestic and irrigation water

Appendix 2: Management Strategy for the Zugg Mineral Claims/McAbee Fossil Beds

The Zugg Mineral Claim covers a small area on the southern boundary of the Arrowstone Protection RMZ. The mineral claim encompasses lower Kamloops Group volcanic and sedimentary strata; sediments contain fossilized aquatic and terrestrial Tertiary fauna and flora. While the site has limited scientific value, its easy accessibility and an abundance of material make it suitable for Special Resource public use. To expedite efficient administration of the mineral claim, it will remain outside of the Protection RMZ boundary but will be covered by a no-staking reserve and managed as follows:

1. Mechanized mining or the use of explosives will not be permitted, and the use of hand tools only will be encouraged.
2. A ministerial order under Section 18(2)(c) of the *Mineral Tenure Act* will be prepared by joint agreement with tenure holder and the Ministry of Energy, Mines and Petroleum Resources specify acceptable surface uses.
3. Existing tenure holders will continue to own and operate the mineral claim for their own personal and commercial use.
4. User fees can be charged for extraction of fossil or other mineral material. User fees cannot be charged for access to the site in accordance with the rights granted under the *Mineral Tenure Act*.
5. Public non-commercial fossil collecting is an allowable and desirable use (public is defined as individuals, families, school groups, rock clubs, but excludes commercial collectors). The tenure holders reserve the right to exclude individuals that are destructive or are collecting for commercial purpose.
6. Ownership of the mineral claim is maintained by performing and recording acceptable assessment work, or paying cash in lieu of work, under the *Mineral Tenure Act*.
7. Nothing in this agreement restricts the mineral claim owner's right to sell the claim to another party.
8. If the mineral claim lapses, the area will be protected from further staking by the No-Staking Reserve, and the Crown will consider opportunities for further public use, enjoyment, education and scientific research of the site.
9. Road access to the mineral claim from Highway 1 will continue to be allowed.

Appendix 3: Potential Measures to Offset Possible Plan Impacts (Verbatim from Kamloops LRMP Volume I: Recommendation)

For the purposes of this transition strategy, mitigation refers to a range of measures needed to provide a variety of opportunities for individuals, communities and commerce that are immediately affected by the implementation of the Kamloops LRMP land use decisions. These opportunities are intended to provide immediate relief for affected individuals and their families through alternative employment, adjustment to new forms of employment and income generation or early retirement.

The timeframe for implementing mitigation measures is 10 years; the life span for this Land and Resource Management Plan. A revised plan developed by the tenth year will address the need for new or revised mitigation measures as a part of that plan.

Phased-In Implementation

Phased-in implementation of the Land and Resource Management Plan will help to reduce potential impacts, by allowing more time for individuals, communities and commerce to adjust, and for new jobs and alternative opportunities to be created.

It is important, however, that ecological and other values are not compromised while allowances are made for phased-in implementation.

Alternative and New Employment Creation

A key goal of the transition strategy is to provide opportunities for those who lose their job as a result of the Land and Resource Management Plan. Efforts will be made to first identify employment opportunities that are in the same industry or sector, and of a similar quality in terms of skill and earning levels, as those that were lost, in order to minimize lifestyle disruptions. Where these opportunities are not available, efforts will be directed at identifying new job opportunities, and facilitating the transition through education, training or relocation assistance.

During retraining, individuals will be compensated at an acceptable level, in relation to their pre-impact regular earnings. The LRMP table recommends that 80% of pre-impact earnings is an acceptable level of compensation, provided progress is being made in retraining.

Potential Mitigation Strategies and Employment Opportunities

New jobs may be created as a result of the implementation of the Forest Practices Code, and the intensive planning, design and layout that will be required. New opportunities may also be created as a result of increased management requirements for LRMP Special Resource Management Zones. Other potential mitigation strategies, including short-term employment opportunities, that have been identified by the LRMP table include the following:

Forestry related Opportunities

- Increase commercial thinning.
- Incremental silviculture.
- Rehabilitate roads, landings and skid trails (in accordance with Access Management Plans).
- Utilization of opportunity wood.
- Increased value-added opportunities associated with the utilization of opportunity wood.
- Review all land base designations within the provincial forest to assess whether there are any areas which may be considered as contributing to the timber harvesting land base.
- Review Crown land currently outside of the contributing timber harvesting land base for possible inclusion.
- Increase inventory and research initiatives, with the goal of achieving an up-to-date forest inventory, at all times.
- Provide incentives or finance bridging opportunities to allow commerce the opportunity to retool machinery or bring new machines in that will extract the resource with minimal environmental impact and provide greater employment opportunities.
- Allow changes to resource activities that use less land but still provide similar economic return and lifestyles.
- Review and identify salvage logging opportunities.

Mining Related Opportunities

- Review no-staking mineral reserves, in an effort to increase the amount of land available for mineral exploration.
- Review designated placer mining areas, to identify opportunities to offset losses of areas within recommended Protection RMZs.
- Increase Prospectors Assistance Grants and Explore B.C. Grants, to encourage the discovery and evaluation of new mineral resources in the LRMP area. Give priority consideration to prospectors and companies adversely affected by the LRMP land use decisions.
- Implement prospectors training, to provide a field-based training program for new prospectors.
- Initiate or enhance geoscience studies which attract mineral exploration investments. Suggested priority programs are: (i) Minfile - update 92P/NE and 92I; (ii) Northern Nicola Belt mineral potential field mapping; (iii) Extend aeromagnetic surveys to Bonaparte Plateau; (iv) Mineral deposit studies and geological mapping of northern Pb/Zn belt (e.g. Raft River, CK); and, (v) Deadman River - Vidette Lake gold deposit studies.

Recreation / Tourism Related Opportunities

- Development of recreation facilities in Recreation and Tourism RMZs and Protection RMZs, where appropriate.

Agriculture / Range Related Opportunities

- Establish a *Range Resource Enhancement Fund* to provide funding for increased management activities required as a result of the LRMP. Such activities may include fencing as a result of protection and other RMZs, development of benchmarks, water developments and riparian management in Community Watersheds, and inventorying of wildlife habitat as a part of range use plans, and for research purposes.
- Provide tenure flexibility - for example, allowing a domestic grazing tenure to be transferred to a commercial recreation tenure to accommodate potential tourism opportunities related to the ranching sector, such as dude ranches or horse riding opportunities.
- Phased out tenure loss and tenure relocation - reductions of AUM's in Community Watersheds or other RMZs can be phased in over 5-10 years as opportunities for tenure relocation become available.
- Improve tenure security, as it relates to length of tenure and willingness of tenure holder to make investments on Crown land. Ten year licences may not be of sufficient length for capital investments by the tenure holder.
- Undertake research on: agro-forestry, tree-grass-cattle issues, cattle-water issues, cattle-wildlife issues, and integrating multiple uses on crown range land.

Measures to Offset Tenure Loss or Decrease in Tenure Value

Where a tenure holder or resource-use interest has been adversely affected by the land and resource allocations in the LRMP area, a mitigation strategy will be implemented which employs several options including but not limited to compensation (if compensation is shown to be necessary). Mitigation processes will be open, fair, equitable and timely and consider opportunities for time-limited dispute resolution.

Mitigation options:

The following are potential options for the mitigation of tenure impacts:

- Adjust boundaries of tenures where the adjustments do not adversely affect adjacent tenures.
- Distribute tenure impacts proportionately with all tenure holders instead of just those that were directly impacted.
- Provide assistance in increasing yields from tenures to pre-impact levels
- Give preference for new business opportunities to dislocated businesses & employees

Compensation

It is recognized that monetary assistance may be required as part of the transition strategy. Where compensation is recommended, it will be in accordance with provincial guidelines that are currently under development.

Pension Bridging

In cases where affected workers are nearing retirement age and where they are eligible for pensions, funding will be provided to allow bridging to early retirement.

Appendix 4: List of LRMP Related Documents

1. *Land Use Planning: Kamloops LRMP Report* - April 1994
2. *Land Use Planning: Kamloops LRMP Open House Report* - July 1994
3. *Kamloops LRMP Summary of Public Comments* - August 1994
4. *Kamloops LRMP Resource Analysis Report Summary* - August 1994
5. *Land Use Planning: Kamloops LRMP Multiple Accounts Analysis Discussion Paper* - September 1994
6. *Kamloops LRMP Volume I: The Recommendation* - February 1995
7. *Kamloops LRMP Volume II: Appendices* - February 1995
8. *Kamloops LRMP Recommendation Summary* - February 1995
9. *Assessment of the Kamloops LRMP Recommendation* - February 1995
10. *Kamloops LRMP Summary of Public Responses* - March 1995
11. *Kamloops LRMP Evaluation Report* - September 1995
12. *Kamloops LRMP Resource Management Guidelines:*
 - a. Policy for Domestic Livestock Grazing in Protection RMZs
 - b. Interim Measures for Biodiversity Management
 - c. Visual Quality Guidelines
 - d. Timber Harvesting Guidelines for Caribou Habitat
13. *Kamloops and Clearwater District Lakeshore Management Guidelines*

To obtain copies of the above mentioned documents, contact:

Kamloops Forest District 371-6500
Clearwater Forest District 587-6700

Appendix 5: List of LRMP Participants

Facilitator

-Dorli Duffy, SFU, School of Resource and Environmental Management

Process Co-ordinators

-Kevin Kriese, Clearwater Forest District

-Gary Reay, Kamloops Forest District

Planning Assistants

-Hannah Horn, Clearwater Forest District

-Leah Malkinson, Kamloops Forest District

Participants

- Art Devick, BC Cattlemens' Association

- Duncan Barnett, BC Cattlemens' Association

- Dick McMaster, BC Fishing and Outfitters Association

- Brian Dack, BC Trappers Association

- Wilf Kipp, BC Wildlife Federation; Kamloops Fish and Game Club

- Trevor Jeanes, BC Wildlife Federation; Kamloops Flyfishers

- Drew Cleaveley, Clearwater Loggers Association

- Neil Thomson, High Country Tourism Association

- Bill Hall, Independent Prospectors

- Chic Gray, Interior Logging Association

- Warren Oja, IWA Canada

- Nels Vollo, Kamloops Exploration Group

- Tom Dickinson, Kamloops Naturalists

- Bob Helfrich, Kamloops TSA Group

- Rick Sommer, Kamloops TSA Group

- Neil Ridenour, Pulp, Paper and Woodworkers of Canada

- Gord Kosakoski, Fisheries and Oceans Canada

- Graham Strachan, BC Ministry of Agriculture, Fisheries and Food

- Rolf Schmitt, BC Ministry of Energy, Mines and Petroleum Resources

- Sandy MacDonald, BC Ministry of Environment, Lands and Parks; Fish and Wildlife

- George Smith, BC Ministry of Environment, Lands and Parks; Water Management

- Ernie Maynard, BC Ministry of Environment, Lands and Parks; BC Lands
- Terry MacDonald, BC Ministry of Environment, Lands and Parks; BC Lands
- Dave Tudhope, BC Ministry of Environment, Lands and Parks; BC Parks
- Max Tanner, BC Ministry of Forests; Clearwater District
- Peter Lishman, BC Ministry of Forests, Kamloops District
- Dean Purych, Share the Thompson
- Norm Fennel, Share the Thompson
- Jim Cooperman, Shuswap Environmental Action Society
- Pat Mackasey, Shuswap Nation Tribal Council
- Joyce Wiggins, Thompson Area Development Association
- Ruth Madsen, Thompson Institute of Environmental Studies
- John Foster, Yellowhead Ecological Association
- Warren McLennan, Clearwater Public Advisory Committee
- Al Hodgson, Kamloops Snowmobile Association
- Tay Briggs, Clearwater Tourism Consortium
- Glen McNeil, Clearwater Logging Association
- Terry Benesh, BC Fishing Resorts and Outfitters Association
- Jay Butcher, BC Trappers Association
- Phil Hallinan, BC Wildlife Federation
- Larry Ovington, Independent Prospectors
- Terry Brown, Interior Logging Association
- Bill Gilmour, Kamloops Exploration Group
- Val Collins, Kamloops Naturalists
- Barry Pidskalny, Gold Dredgers Association
- Larry Lutjen, Independent Prospectors
- Mark Hopkins, Kamloops TSA Steering Committee
- Chris Ortner, Kamloops TSA Steering Committee
- Ray Frolek, BC Cattlemens' Association
- Joe Davies, IWA Canada
- Lee Morris, High Country Tourism Association
- Bruce Bosdet, Thompson Watershed Coalition

Appendix 6: Interim Measures for Biodiversity Management

A. Background

Since November 1992 public participants and government representatives have been working toward a balanced land-use plan for the Kamloops management area. An important principle of the plan is that the management decisions should maintain or enhance the natural biodiversity¹ of the plan area. Conservation of biodiversity is addressed, in part, through the identification of representative reserves as part of the provincial **Protected Areas Strategy**. These reserves alone are not sufficient to ensure the conservation of biodiversity. Without management principles that apply to the broader land base and that directly consider biodiversity, this resource will be diminished².

Many of the components of the **Forest Practices Code** for B.C. have been devised to deal with issues of conserving biodiversity (e.g. Riparian Management Guidelines, etc.). Eventually, the Kamloops LRMP may rely on the regulations and directions set out in the **Biodiversity Field Guide** that will be part of the Code. However, at present the field guide is still in draft form and thus can not yet be referred to for direction. **The conservation sector at the LRMP table feels that it would be imprudent to recommend a land-use plan without a document in place that ensures the conservation of biodiversity on the broader land base. Similarly, industry representatives at the table feel that it is inappropriate to commit to unpublished guidelines.**

B. Purpose

This document represents a contingency statement to temporarily take the place of a Biodiversity Field Guide, until such time as such a guide is in place. Since the maintenance of biodiversity is a high priority in this plan, it is felt that planning should not, nor need it, await the approval of the government guidelines. **Therefore, this document is meant to provide direction in developing plans that directly address biodiversity concerns. The terms and conditions of the directions provided by this document can be changed by a consensus agreement at the LRMP table.**

¹Biological diversity or biodiversity refers to the diversity of life in all of its forms and levels of organization, including genes, species, and ecosystems (M.L. Hunter, 1990, *Wildlife, Forests and Forestry: Principles of Managing Forests for Biological Diversity*. Prentice-Hall, Englewood Cliffs, New Jersey).

²From "Discussion Paper - Biological Diversity" by the Centre for Applied Conservation Biology, University of B.C. in co-operation with the B.C. Professional Foresters.

C. Elements of Planning

Following the rationale of the Forest Practices Code, planning for biodiversity should occur at several "levels". These range from plans that aim at retaining particular forest attributes at a scale of tens to hundreds of hectares (stand-level plans) to those that provide for gene flow among sub-populations and ecosystem integrity at scales of tens of thousands of hectares (landscape-level plans).

i. Sub-regional Plans:

In accordance with the objectives of the Forest Practices Code, regional managers should direct research staff and planners to identify and map landscape units to serve as a basis for lower level plans. Landscape units will typically follow natural boundaries such as those defined by moderate-sized watersheds (e.g. 50,000 ha). In instances where a landscape unit is artificially divided by an administrative boundary, planners should co-ordinate their activities with counterparts in adjacent planning areas.

ii. Landscape Unit Plans:

Once landscape units have been identified, management objectives should be developed for each unit. Since the resources will not likely be available to proceed with the planning of all units simultaneously, a prioritized list should be developed. The highest priority areas will include:

- extensively developed watersheds, where biodiversity may already be at risk;
- watersheds containing habitat for provincially important species or those at risk;
- undeveloped watersheds; and,
- watersheds in which the first "pass" has not yet been completed.

Objectives for maintaining biodiversity must be set for some or all of the following characteristics:

- old growth attributes;
- species composition;
- landscape connectivity;
- stand structure;
- seral stage distribution;
- temporal and spatial distribution of cut and leave areas;
- retention of special features or habitats (e.g. scree slope for pika); and,
- retention of the typical ecosystems found in the area.

The natural disturbance regimes under which different ecosystems contained in a unit have evolved should guide management objectives for the unit. For example, in some types of ecosystems natural disturbances, such as fires, were common; in those ecosystems it is appropriate to have a relatively large percentage of the area in young seral stages. In other types

of ecosystems, infrequent disturbances through history suggest a larger fraction of the forest be in a mature stage.³

iii. Ecosystem Networks (ENs):

Ecosystem networks should be designed within each landscape unit. In the context of a forested ecosystem, an ecosystem network typically contains old-growth and mature forest (some of which will provide interior forest habitat). Other types of ecosystems will have equivalent requirements. Functional ecosystem networks should be planned to utilize the full range of opportunities available to minimize impacts on other resource users. They may be composed of fully protected areas, classified areas (such as riparian and wildlife areas), inoperable areas etc., along with any other areas recognized as being sensitive. Land management planners should collaborate regarding the specific attributes required for a particular ecosystem network.⁴

iv. Stand Attributes, Wildlife Trees etc.:

- v. Stand-level practices to maintain biodiversity should be aimed at maintaining a component of historic levels of stand attributes present in old-growth forests and climax grasslands. To meet the stand structure objectives for landscape units in forested areas, appropriate silvicultural systems should be selected for those stands to be logged. Particular care should be taken to recommend a system that incorporates wildlife tree retention and the recruitment of future wildlife trees. A wildlife tree is a standing or dead tree with special characteristics that distinguish it from other trees, for example current use by wildlife, large diameter and height for the site, condition, species type, location, and relative scarcity. Regional planners should stipulate that during the engineering and pre-development stages the need for wildlife trees will be considered and that these trees will be identified and incorporated into the PHSP⁵.

³The Nov. 16, 1994 Draft of Biodiversity Field Guide lists and describes the characteristics of five natural disturbance types and correlates these with different biogeoclimatic zones and subzones. This document also defines the seral stages by biogeoclimatic zones for the different disturbance types and recommends seral stage distributions for the various disturbance types. **Until a final document is released, managers can use the draft document as interim guidelines.**

⁴Planning should proceed using the protocol described in the Nov. 16, 1994 draft of the Biodiversity Field Guide.

⁵Recommendations in the Nov. 16, 1994 Draft Field Guide can be used as a guidance during the interim between the LRMP and the final versions of the Guide.

Appendix 7: Preliminary Landscape Unit Biodiversity Emphasis Options

#	Landscape Unit	Total Area (ha)	Preliminary Emphasis
1	Hat Creek	65,500	Intermediate
2	Lower Bonaparte	59,800	Intermediate
3	Ashcroft	118,000	High
4	Deadman	111,900	Intermediate
5	Kamloops Lake	91,000	25% High (north of lake) 75% Intermediate (south of lake))
6	Guichon	106,600	75% Intermediate 25% Low
7	Tranquille	63,000	50% High (southern half) 50% Intermediate (northern half)
8	Heffley	74,900	Intermediate
9	Campbell	157,800	Intermediate
10	Louis Creek	51,000	High
11	Barriere	116,500	A. Low * B. 50% Intermediate, 50% Low
12	Adams Lake	109,800	A. Low B. 33% Intermediate, 66% Low
13	Lower Adams	23,000	Intermediate
14	Jamieson / Skull	60,500	Low
15	North Thompson / Dunn	83,700	50% High (east of the river)(50% Intermediate (west of the river)
16	Bonaparte / Machete	30,200	Low
17	Nehalliston	47,000	Intermediate
18	Clearwater	127,200	Low
19	Vavenby	23,700	Low
20	Raft	76,000	A. Intermediate B. Low
21	Mad	64,000	Low
22	Mica	52,500	Low
23	Cayenne	46,300	Intermediate
24	Tum Tum	100,200	Intermediate
25	Avola	63,400	Low
26	Thunder / Blue	67,500	Low
27	Mud	69,700	Intermediate
28	Albreda	62,500	Low
29	Upper N. Thompson	93,100	Intermediate




*A and B denote the two scenarios being considered

Kamloops LRMP



Preliminary Biodiversity Emphasis Options

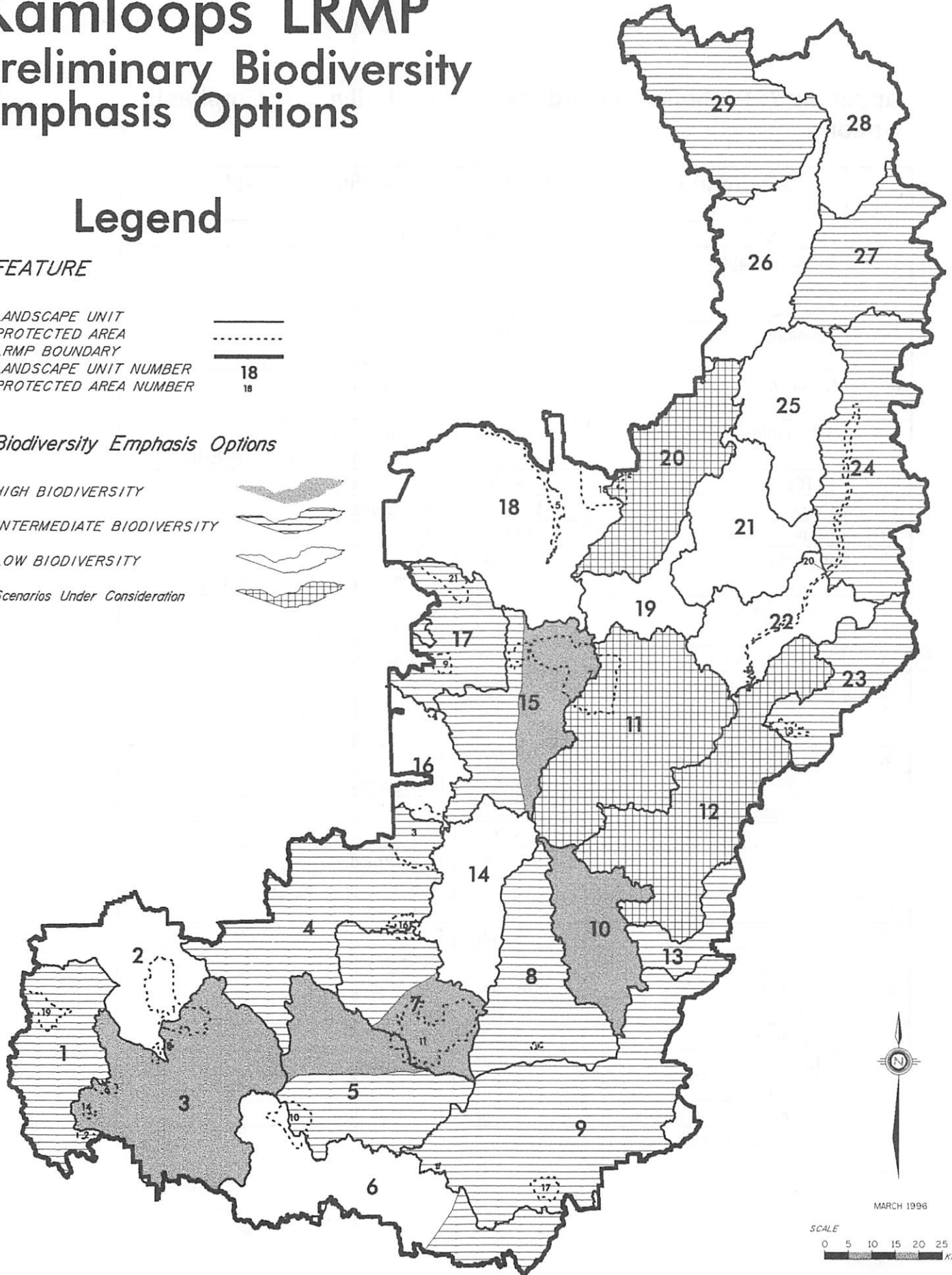
Legend

FEATURE

LANDSCAPE UNIT 
 PROTECTED AREA 
 LRMP BOUNDARY 
 LANDSCAPE UNIT NUMBER **18**
 PROTECTED AREA NUMBER **18**

Biodiversity Emphasis Options

HIGH BIODIVERSITY 
 INTERMEDIATE BIODIVERSITY 
 LOW BIODIVERSITY 
 Scenarios Under Consideration 



Appendix 8: Visual Quality Guidelines for Timber Harvesting

Managing for visual quality requires flexibility in management prescriptions to allow VQOs to be achieved across a variety of landscapes, viewing situations and social contexts. The bottom line in managing for visual quality is to meet the definition and intent of the VQOs. Key considerations in meeting VQOs are:

- choice of silviculture systems;
- quality of design and layout;
- harvest practices and road developments which minimize visible site disturbances; and
- adherence to criteria which indicate per cent disturbance and/or specific green-up ranges (see Table 1).

The following general principles apply when managing for VQOs. It should be noted that these reflect trends and are not absolutes:

- As slope increases, block size should decrease.
- The greater the slope, the higher the Green-up required.
- The larger the landform, the larger the block size could be.
- The greater the number of leave trees, the lower the Green-up required.
- The greater the number of overstory trees, the larger the block could be.
- Block size should be consistent with natural openings.
- Block size should be consistent with vegetation pattern sizes.
- The farther the viewpoint is from the block, the larger it could be.
- The more focal the block is from a viewpoint, the smaller it should be.
- As the complexity of block design and VQO increase, so do the associated costs.

Forest Development Plans and other resource development plans which are guided by sound cutblock design and flexible criteria for per cent disturbance and green-up should meet the intended VQOs. However, longer range Total Resource Planning should be encouraged. This would ensure that visual quality is maintained over multiple passes and entries. (Total Resource Design concepts are discussed in the Ministry's *Draft Visual Landscape Design Manual*).

General strategies for landscape management are as follows:

- All developments should be designed for some level of visual management.
- Developments should be designed to ensure that VQOs are met over multiple passes.
- Cutblock boundaries should be irregular in shape and borrow from natural line, form, colour and texture.
- Cut block sizes should be varied to match landscape diversity.
- Harvesting should be distributed across the profile of terrain and Visually Sensitive Areas utilizing a variety of harvesting methods. This will ensure future availability of wood from all VQO areas.
- Consider the utilization of wildlife trees and shrubs, deciduous trees and non-merchantable stems to help meet both visual and biodiversity objectives.

- Visual management should consider the biological rotations of different stands, recognizing that stands go through successional stages.
- Visual green-up will generally range between three and six metres, but may exceed this height if required to meet VQOs. Height of visual green-up may be influenced by:
 - silvicultural systems used
 - natural features present
 - density of regeneration (stems/ha)
 - fullness of crowns
 - slope of block
 - block size
 - Visual Absorption Capability (VAC)
 - block edge contrast
 - block shape/design
 - number of leave trees and their distribution
 - degree of screening/ visibility of roads and landings
 - planting strategies (timing, density, stock size)
- Both existing and proposed inappropriate block shapes could reduce the per cent of harvest and/or increase the green-up requirements. Current block design should consider future harvesting opportunities.
- Visual Assessments should be based on perspective, not planimetric views. Note that current percentage removal guidelines are based on visible planimetric measurements; see Table 1).
- Sidecasting for roads and landings should be minimized.
- Minimize right-of-way width on highly sensitive slopes
- Avoid locating roads on midslopes. Take advantage of benches and vegetative screening where possible.
- Use techniques such as end hauling and controlled blasting to minimize visual impacts.
- Disturbed areas must be promptly grass seeded.
- Locate, screen and rehabilitate borrow pits.
- Avoid skid trail impact on steep slopes.
- Locate, screen and rehabilitate landings.

Other management strategies include:

- Reserve width guidelines may be secondary to landscape considerations.
- Forest health considerations may override landscape criteria.

Further details on strategies for landscape management are contained in the *Draft Provincial Visual Management Guidelines*.

The following table reflects the flexibility of managing to meet VQOs using a variety of silvicultural systems. It should be emphasized that the values shown in the table are ranges which will vary for each silvicultural system. Many site specific factors such as VAC, slope, viewing angle, distance and existing stand characteristics will influence the specific value chosen within each of the ranges shown. Management under this system is based on meeting the primary objectives for Visually Sensitive Areas.

Table One: Silvicultural system guidelines for meeting Visual Quality Objectives.

Silvicultural System	Preservation			Retention			Partial Retention			Modification		
	Max. % harv. ¹	Leave trees s.p.h. ²	Green-up (m)	Max. % harv.	Leave trees s.p.h.	Green-up (m)	Max. % harv.	Leave trees s.p.h.	Green-up (m)	Max. % harv.	Leave trees s.p.h.	Green-up (m)
Single Tree Selection Group Selection	10-20	≥70% B.A. ³	N/A	20-60	≥50% B.A.	N/A	40-100	≥50% B.A.	N/A	60-100	≥50% B.A.	N/A
Patch Cutting 0.1 - 1 ha Clearcut with reserves 1 - 2.5 ha Clearcut 1 - 2.5 ha	5-10	N/A	3-6	10-20	0-20	3-5	15-30	0-20	3-5	20-30	0-20	3-5
Shelterwood Uniform & Strip	3-10	450	3-6	5-20	100-450	3-5	15-30	100-250	3-5	20-30	50-150	3-5
Clearcut with reserves 2.6 - 10 ha Clearcut 2.6 - 10 ha	3-5	N/A	3-6	5-15	5-20	3-6	10-25	5-20	3-6	15-30	5-20	3-5
Clearcuts with reserves 10.1 - 40 ha	3-5	N/A	3-6	5-10	30-200	3-6	10-20	30-100	3-6	15-30	30-50	3-6
Seed Tree	1-3	N/A	3-6	3-8	10-30	3-6	8-20	10-30	3-6	15-30	10-30	3-6
Clearcuts 10.1 - 40 ha	0-1	N/A	3-6	1-5	5-20	3-6	5-15	5-20	3-6	10-25	5-20	3-6

¹Maximum percent harvested refers to the visible percent harvested in plan view of a visual Landscape Unit as defined from one or more specific viewpoints.

²S.P.H (Stems per hectare) = leave trees greater than or equal to 12.5cm dbh for PlI and 17.5cm dbh for others species. Generally, larger trees with full crowns are used.

³B.A.(Basal Area) = percent remaining.

*Shading indicates recommended silviculture systems for a given VQO.

Notes to accompany Table 1:

- Clearcut harvest methods do not preclude leaving residual trees which can further reduce visual impacts.
- Visual green-up will generally range from 3-6m, but may exceed this height if required to do so to meet VQOs.
- Use of this table must be accompanied by the careful landscape design and by forest practices which minimize visible site disturbances.
- This table is designed with the intent of maintaining long-term visual quality over multiple passes.
- Percent harvest values are based on the *Draft Provincial Visual Landscape Management Guidelines* and modified to reflect the application of various silviculture systems.
- Number of leaves trees are based on the *Draft Provincial Visual Landscape Management Guidelines* and the *Draft Partial Cutting Study* values and modified to reflect the application of various silviculture systems.
- Green-up heights are based on the *Draft Provincial Visual Landscape Management Guidelines* and the *Visually Effective Green-up Report* and then modified to reflect the application of various silviculture systems.

Definitions of Harvest Methods for Visual Landscape Management

(Taken from the FPC Operational Planning Regs)

"clearcut" means a silvicultural system that

(a) removes the entire stand of trees in a single harvesting operation from an area that is:

(i) 1 ha or greater, and

(ii) at least two tree heights in width, and

(b) is designed to manage the area as an even-aged stand;

"clearcut with reserves" means a variation of clearcutting in which trees are retained, either uniformly or in small groups, for purposes other than regeneration;

"even-aged stand" means a stand of trees consisting of one or two age classes;

"group selection" means a silvicultural system that

- (a) removes trees to create openings in a stand less than twice the height of mature trees in the stand, and
- (b) is designed to manage the area as an uneven-aged stand;

"partial cutting" means a silvicultural system in which only selected trees are harvested and includes seed tree, shelterwood, single tree and group selection, and clearcutting with reserves;

"patch cutting" means a silvicultural system that creates openings less than 1 ha in size and is designed to manage each opening as a distinct even-aged opening;

"seed tree" means a silvicultural system in which selected trees are left standing after the initial harvest to provide a seed source for natural regeneration;

"shelterwood" means a silvicultural system in which trees are removed in a series of cuts designed to achieve a new even-aged stand under the shelter of remaining trees;

"single tree selection" means a silvicultural system in which age classes are created or maintained by the removal of individual trees of all size classes, uniformly throughout the stand.

Appendix 9: Kamloops LRMP Policy for Domestic Livestock Grazing in Protection Resource Management Zones

PART 1:

Preamble

The Protected Areas Strategy for British Columbia states for discussion purposes, that "grazing will not be permitted except for expressed management purposes" in Protected Areas (PAs). This statement has been interpreted as a blanket exclusion of grazing, raising significant concerns and uncertainty within the agriculture industry. The Kamloops Land and Resource Management Planning Table, for example, found this interpretation unacceptable and requested the Regional Protected Areas Team (RPAT) to develop a policy that allows grazing while not compromising Protected Areas Strategy (PAS) goals and values.

This policy must recognize that:

- properly managed livestock grazing may be an acceptable use in some PA management categories;
- the best available scientific information and expertise should be used to identify PAs, benchmarks and allowable uses;
- establishment of a network of ungrazed benchmarks is of critical importance and value. They are required to provide representation of natural ecosystems for long term scientific research, to evaluate and improve range management practices, and monitor changes in native plant and animal communities;
- in PAs grazing will be managed to avoid damaging environmentally sensitive areas including wetlands, estuaries, riparian zones, critical wildlife habitats, alpine areas, steep slopes...etc.;
- ranching provides important heritage and cultural values that should be included in some PAs; and
- exclusion of livestock grazing from all PAs would have an unnecessary socio-economic impact on the ranching industry.

Policy:

Domestic livestock grazing may be allowed within Protected Areas, where it is compatible with the long term PAS goals. Some Protected Areas will remain ungrazed while others where grazing occurs will generally contain ungrazed benchmarks.

Conditions of the Policy:

- 1) **Grazing within Management Categories:** The PAS document proposes five management categories. Each Protected Area may be zoned into one or more of the five categories. Livestock grazing will not occur in Category 1 (strict preservation), and seldom in Category 5 (intensive recreation). Grazing may occur in Categories 2 (wilderness), 3 (heritage and culture) and 4 (natural environment). Livestock will not be allowed to degrade environmentally sensitive areas within Protected Areas. Generally, livestock grazing will not be introduced where it does not occur at the time of designation. However, livestock grazing will be allowed in categories 2-5 to achieve specific PA management objectives.
- 2) **Ungrazed Benchmarks:** Ungrazed benchmarks are ecologically representative of local ecosystems, from which livestock grazing will be excluded. They will be used to evaluate adjacent management practices and must be of sufficient size to detect long term biophysical changes. Benchmarks should be of sufficient size to include, where practical, representation of the full spectrum of locally occurring ecosystems, such as wetlands, riparian areas, grasslands, and deciduous and coniferous forests. Where it is not practical to capture this representation in a single large benchmark, the PA may contain several small benchmark sites connected through special management of the surrounding lands. Livestock will be excluded from benchmarks by natural features, fencing or other management tools.
- 3) **Benchmark Selection and Planning Responsibility:** The Regional Protected Area Team (RPAT) will consult with range management specialists and affected range tenure holders, to identify benchmarks and their connectivity requirements for the appropriate land use planning table (CORE and LRMP). The planning table will identify and recommend general management objectives and categories for each proposed PA. A subsequent local planning table involving relevant stakeholders and agencies will prepare a detailed management plan for each established PA. Resource management within each PA will be considered within the broader land use planning context. Any changes in grazing patterns or use as a result of PA management directions will be introduced over time through direct negotiations with tenure holders.

Prepared by: Grazing Subcommittee, Kamloops RPAT, Dec. 16, 1993, and revised Jan. 17, 1994 and February 1, 1994: D. Lloyd and B. Ivanco, MoF, P. Holman BCE, R. Tucker, J. Steves and J. White MoF (Range), G. Strachan and D. Blumenauer MoAFF, M. Hanry, R. Madsen, D. Tudhope and P. Whitfield BCP.

February 1, 1994

PART 2:

1. Regional Protected Areas Team (RPAT) proposed policy (Part 1): The sub-committee endorses the philosophy of the "Proposed Policy for Domestic Grazing in Protected Areas" February 1st 1994 draft, prepared and agreed to by consensus, by the Kamloops RPAT and grazing committee of RPAT.

The LRMP has modified this proposed policy by the following:

2. Domestic livestock grazing may be allowed within protected areas, where it is compatible with long term Protected Areas Strategy (PAS) goals. In general, existing tenures will be allowed, and these will be renewable and transferable (can be sold with the ranch, or handed down to descendants). In the "strict preservation" category, and specific "wilderness" category sites, domestic livestock grazing may gradually be phased out (see below).

a) Domestic Livestock Grazing Continues: In the "Natural", "Cultural Heritage" and "Intensive Recreation", and some of the "Wilderness" Protected Area (PA) categories, properly managed grazing may be compatible with PA goals, and therefore grazing may continue, subject to ongoing review that the PA goals are being met. Also, this grazing will be subject to special management requirements, as necessary to achieve the PA goals (special management plan).

b) Domestic Livestock Grazing Phased Out: In the "Strict Preservation" and in specific "Wilderness" PA categories, grazing will be phased out slowly over a long period of time to meet the goals of protection of "natural" ecosystems. The reason for "phase out" in "strict preservation" category is that domestic cattle are "not native" and therefore domestic livestock grazing is considered inconsistent with the goal of this category.

"Phasing out" will be fair, and accomplished under the direction of the Ministry of Forests, with full co-operation of the rancher (except with non-compliance with the management plan). Please see section 3.

No new tenures will be issued, and no increases in animal unit months (AUMs) will be granted.

The management plan will recognize the gradual phase out of grazing in these stated areas.

3. Grazing can be "phased out" by the following methods. These apply to excluding grazing from "strict preservation" and specific "wilderness" category areas:

a) Voluntary tenure relinquishment: When a rancher voluntarily relinquishes his/her range tenure and no longer wants to graze livestock on Crown land, the range tenure will be amended to exclude the "strict preservation" category and specific "wilderness" category, before the tenure is re-allocated* as a new opportunity.

b) Willing transfer to new tenure area: When an adjacent grazing tenure opportunity becomes available, which is economical and feasible for the rancher to use, the range tenure will be amended to: exclude the "strict preservation" category, and/or specific "wilderness" category, and to include an equivalent Crown range area of the new opportunity. These new opportunities may arise either through range improvements, or access improvements on the remaining grazed rangeland areas, or through the relinquishment or cancellation of another grazing right, or AgroForestry operations.

c) Willing sale: When a ranch is voluntarily listed for sale, the Crown (or other interested groups) may purchase the complete ranch (the deeded land plus the grazing tenure), or a portion of it. This would require a market value assessment.

This may be of value for heritage ranches such as Coldstream or Empire Valley.

d) Cancellation due to non-compliance: A Forest Service grazing tenure can be cancelled due to non-compliance with the Range Act, range tenure and management plan conditions. That portion of the range tenure which occurs in the "strict preservation" and specific "wilderness" category areas may be excluded, before the tenure is re-allocated* as a new opportunity.

e) Willing change to a recreation tenure: Where appropriate, the opportunity would be provided, to allow the grazing tenure holder to "trade" for available back-country recreation tenures, in co-ordination with the existing, or proposed recreation tenures. Existing government policies may need to be changed to create this opportunity.

***Re-allocation may occur only if it is feasible to use the remaining AUMs and area.**

4. Special Management: The grazing tenure holder may be subject to special management requirements as defined in the PA management plan. Therefore, the grazing tenure holder may have increased management costs associated with the Protected Area. In some proposed Protected Area sites this special grazing management may currently exist, and therefore minimal changes to management may be required.

The management plan requirements should be based in the best scientific information and expertise available, regarding grazing effects (positive or negative) on the goals of the PA. Plans should be consistent with the LRMP (or similar public stakeholder/agency group) and other higher level plans. Plans provide the objectives and guidelines by which the unprotected area will be managed.

5. Ungrazed Benchmarks: Benchmarks from which livestock are excluded will be established on certain sites in the Protected Area. Page 2 of the Proposed Policy of the Kamloops RPAT describes the ungrazed (by domestic livestock) benchmarks:

"Ungrazed benchmarks are ecologically representative of local ecosystems, from which livestock grazing will be excluded. They will be of sufficient size to detect long term biophysical changes. Benchmarks should be of sufficient size to include, where practical, representation of the full spectrum of locally occurring ecosystems, such as wetlands, riparian areas, grasslands, and deciduous and coniferous forests. Where it is not practical to capture this representation in a single large benchmark, the PA may contain several small benchmark sites connected through special management of the surrounding lands. Livestock will be excluded from benchmarks by natural features, fencing or other management tools." Benchmarks will require adequate monitoring to evaluate long term impact.

6) Domestic Livestock Grazing as a Vegetation Management Tool: The above recommendations do not preclude that domestic livestock grazing may be used as a tool, in all categories in Protected Areas, to replace and mimic natural wildlife grazing use, for vegetation and ecosystem management purposes.

7) Future Planning: We recommend that the specific details and ongoing amendments of the special management plans for the PAs be determined by local planning groups, which include all relevant stakeholders and agencies, including the range tenure holder. Also, detailed on-the-ground assessments are to include the local relevant stakeholders. PA management plans and future amendments should be consistent with the LRMP and higher plans (which provide the general guidelines for the special management plans).

(Approved by consensus at the LRMP meeting on June 30, 1994)

Appendix 10: Timber Harvesting Guidelines for North Thompson Caribou Habitat

3.1 Goals and Objectives

Late Winter Habitat:

Late Winter habitat is delineated in the Special Resource Management - Habitat / Wildlife Management Areas Zone: North Thompson Caribou Habitat. In most cases, the area approximates the 1700 metre contour.

The overall goal in Late Winter habitat is to ensure that logging development does not impact the structural and functional integrity of these habitats. Ideally logging should mimic the naturally occurring forest patterns found in the ESSF and ESSF/AT transition zones. Generally, as the elevation increases in the ESSF zone, the tree spacing becomes wider until a clumpy or patchy distribution occurs in the parkland forests. Therefore, a partial cut or group selection prescription is preferred in late winter habitats.

The following objectives are related to the overall goal of maintaining structural and functional integrity of the Late Winter habitat.

1/ Maintain a minimum of 33% of the area to retain old growth attributes and to ensure sustained lichen productivity and availability. Old growth retention by biogeoclimatic zone classification for biodiversity purposes will be achieved through the use of treed islands, ecosystem networks and riparian buffers.

2/ Silviculture systems other than clearcutting are preferred. Clearcutting should only be used in those areas that have operational or silvicultural constraints (up to one-third of the total area proposed for development).

3/ Reduce the impact of clearcut logging at the site level by restricting clearcut block size to a maximum of 15 ha.

Transitional Habitat:

Transitional habitat is delineated in the Special Resource Management - Habitat / Wildlife Management Areas: North Thompson Caribou Habitat zone. These habitats correspond to the upper elevation ICH, ICH/ESSF transition and lower elevation ESSF zones. They are usually located downslope of the Late Winter habitat to elevations of approximately 1300 metres. However, occasional use is known to occur in lower elevation valley bottoms.

The overall goal in the Transitional habitat is to provide snow interception cover during early winter periods, which is important for foraging and ease of movement purposes. These areas are used exclusively until the snow "firms up" enough to allow for migration to the upper elevations.

The following objectives are important in maintaining the structure and function of the Transitional habitat:

1/ Maintain 20% of the total area to retain old growth attributes and old growth through the retention of treed islands, ecosystem networks and riparian buffers. Provide for a continuum for movement corridor purposes and for the provision of arboreal lichen foraging opportunities.

2/ Maintain the integrity of riparian habitats, particularly in the ICH zone and the wetland complexes associated with the ESSF on relatively flat terrain. These areas are best suited to partial cuts or selective cuts.

Movement Corridors

Agreement has been reached to provide long term movement corridors to link areas of known caribou population centres. The linkages are called corridors and will also serve as vital elements in the planned ecosystem networks.

These corridors have been located and mapped on the Low Intensity Resource Development - Habitat RMZ map. Corridor locations are based on historic knowledge of traditional migratory pathways. Where this historic information does not exist, high potential areas for corridors have been identified and mapped based on existing forest cover and slope patterns that are similar to known caribou movement corridors.

3.2 Timber Harvesting Guidelines

Late Winter Habitat

There are three acceptable methods of logging in late Winter caribou habitat. These methods may be used alone or in combination. Group selection and true selection are the preferred methods as the disturbance level is significantly less than a clearcut, and the resultant area mimics the upper elevations of the ESSF zone.

1. Group selection/ small clearcuts -

Up to 5 ha with a mean of 2 ha, within a maximum 200 ha boundary. Based on a three pass system with a 1:2 cut/leave ratio - within any given area a 1:1 cut/leave may be acceptable provided that the overall ratio is 1:2. For example, within a 150 ha block, 50 ha of the block could be logged in the first pass. Leave trees or clumps for old growth, wild life trees and lichen dispersal should be considered.

2. True selection -

Up to 35% of the basal area, depending on the site and stand characteristics can be logged in the first pass. Two dominant trees/ha should be retained for old growth attributes, lichen dispersal, wildlife trees, and future snag potential. Optimum percentage figures for the basal area should be examined in the research project.

3. Moderate-sized clearcuts

This is the least preferred method of logging in Mountain Caribou habitat and must only be considered for one-third of the proposed area removal. Clearcuts up to 15 ha should be reserved for sites where other factors, such as soils, slopes, timber types, etc. limit selection logging. Provisions are required for special habitats such as riparian areas and movement corridors.

Transitional Habitat

1. Either of the first two methods described for Late Winter habitat are preferred i.e. group selection or true selection.

2. Up to 15 ha clearcuts will be considered in the ESSF zone, provided that poor, wet sites and poor dry sites are avoided. This includes all of Zones 02, 09, and 10 in the ESSF wc2 (Lloyd 1990), and portions of Zones 03, 04, 05 and 08. Blocks must be located to avoid disrupting movement corridors.

3. Up to 40 ha clearcuts will be considered in Zones 01, 06, and 07 of the ESSF wc2, as well as the moderate to good growing sites in portions of Zones 03, 04, 05, and 08. Up to 40 ha clearcuts will be considered in the ICH zone. Consideration for movement corridors is required.

Movement Corridors

The forest within mapped movement corridors will be managed to:

a/ Maintain a continuous windfirm band of timber (pole size). At least 30% of the timber within the caribou corridor must contain the following features:

- canopy closure sufficient to intercept snow;
- natural pruning of lower branches, and;
- harvesting permitted within corridor but cutblocks must be designed to permit contiguous corridor that is not fragmented

b/ A maximum of 20% of the area may be in a non greened up condition over the width of the zone.

c/ Corridors should be a key element of Ecosystem Networks and as such should be between 1000m and 500m in width.

Note: canopy closure must consider what is naturally attainable