



## for Bowron Lake, Cariboo Mountains and Cariboo River Provincial Parks



Ministry of Water, Land and Air Protection Environmental Stewardship Division

Bowron Lake, Cariboo Mountains and Cariboo River Provincial Parks

# Management Plan

Prepared by BC Parks Cariboo District Williams Lake BC



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### Bowron Lake, Cariboo Mountains And Cariboo River Provincial Parks

# Management Plan

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Date: Drock 4, 2002

Date: March 4, 2002

This Management Plan is a component of the *Cariboo-Chilcotin Land-Use Plan*, the *Robson Valley Land and Resource Management Plan* and the *Prince George Land and Resource Management Plan* and was developed through direction from those land use plans.

The Management Plan has been endorsed by the Cariboo Mid-Coast Interagency Committee and the Cariboo-Chilcotin Regional Resource Board as being:

"Consistent with the spirit and intent of the CCLUP"

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In addition to members of the public, a number of government staff played a key role in providing information for the plan. Thanks to Jim Young for spending many evenings explaining the complexity of mountain caribou and other wildlife management issues to the public and listening to their concerns. BC Parks staff who reviewed and helped develop the plan include Lisa Learmonth, Don Olesiuk, Mike Woodruff, Tracy Ronmark, Glen Davidson, Kate Alexander, Murray Carruthers, Steve Mazur and Paula Call in the Cariboo Region, and Roger Norrish in Victoria. The plan was developed and written by Chris Hamilton, Senior Planning Officer in the Cariboo Region.

Plate 1: The dramatic landscape around Mitchell Lake in Cariboo Mountains Park.

### **Management Using Ecological Integrity Principles**

Today, as pressures for land and natural resources increase, there is an awareness that British Columbia's protected areas are being relied on more than ever to restore and conserve the natural biological diversity of landscapes and protect species at risk while providing sustainable and accessible recreation and tourism opportunities.

Throughout the Bowron Lake, Cariboo Mountains and Cariboo River management planning process, the public emphasized the importance of using ecological integrity principles for the management of these parks. As such, the plan recognizes that the primary purpose of this particular block of parks is conservation and protection of species at risk. BC Parks will use the best available science and information to manage for the long-term protection and ecological integrity of the parks. An ecosystem-based management approach will ensure that the significant recreation and tourism opportunities outlined in the plan highlight British Columbia's parks as jewels of the tourism industry.

Planning and managing using ecological integrity principles means managing areas so that the function of ecosystems is unimpaired by the potential stresses induced by human activities and ensuring the ecosystems' biological diversity and supporting processes are likely to persist. The end result is managing the parks so that they can remain as natural as possible. The actual application of these principles will vary depending on the nature of the zone and other management objectives.

Management using ecological integrity principles includes allowing for natural disturbance patterns to prevail, protection of species and their habitats such that they can continue to exist in numbers sustainable over time, and the recognition that humans are very much a part of the ecosystem. As part of an ecological integrity approach to planning and management, human recreation is embraced as long as it does not harm or diminish the natural ecosystem composition, structure and function over time.

An important part of managing protected areas using ecological integrity principles is recognizing that protected areas must be considered within the larger landscape context. As such, BC Parks has committed to working with land and water managers from other agencies and industries to share information when making decisions regarding the greater landscape.

Management decisions should be guided by the best available science; working towards closing information gaps with the goal of restoring and conserving the natural biological diversity of landscapes and protecting species at risk. The use of the best available science will ensure sustainability, accountability, and responsibility in decision making.

Finally, management using ecological integrity principles demands a long-term focus. The time scale at which ecological processes exist (e.g. 200 - 800 year fire cycles, 100 year floods, etc.) needs to be considered in the management of protected areas. Ecosystems and their processes are dynamic, and applying long term goals for protected areas is vital to effectively manage for ecological integrity.

This management plan for Bowron Lake, Cariboo Mountains and Cariboo River parks exemplifies the focus on management using ecological integrity principles. The plan will reflect many principles and highlight specific examples of management strategies that work toward maintaining a healthy park ecosystem. Decisions regarding human use in these parks were made to build on the values of the public and stakeholders, and will reflect the long-term goal of sustaining healthy and dynamic ecosystems.

Click to view plate 2. Avalanche tracks at the headwaters of the Mitchell River in Cariboo Mountains Park provide excellent foraging areas for grizzly bears.

### **Plan Highlights**

#### Cariboo-Chilcotin Land-Use Plan Commitments

- ✓ This management plan for Bowron Lake, Cariboo Mountains and Cariboo River provincial parks was developed with the direct involvement of an Advisory Group comprising a wide variety of interests and perspectives. The Advisory Group will be invited to meet once a year to monitor and review the implementation of the plan.
- ✓ These parks will be managed for their provincially significant conservation (including species at risk) values, in particular the red-listed mountain caribou and blue-listed grizzly bear and bull trout. Sustainable public and commercial recreation will be encouraged in the parks and will be managed on an ecosystem basis using the best available science so that risks to these conservation values are minimized.
- ✓ The right to hunt, trap, guide-outfit and fish has been confirmed as acceptable uses in Cariboo Mountains and Cariboo River provincial parks. Existing levels of commercial recreation, such as wildlife viewing and helicopter skiing, will be maintained.
- Trapping is confirmed as an acceptable use in Cariboo Mountains, Cariboo River and the Wolverine addition to Bowron Lake Provincial Park. Vacant areas in the Upper Cariboo River and Betty Wendle additions will be closed.

- ✓ Existing snowmobile use has been confirmed as an acceptable use at Ghost Lake and in the Roberts Peak area of Cariboo Mountains Provincial Park. A new snowmobile corridor has also been confirmed through the Z-Road in the Mitchell River area.
- ✓ The right to access private property at the north end of Quesnel Lake via the Z-Road has been confirmed, as well as aircraft access to private inholdings at the east end of Mitchell Lake.
- ✓ An additional +/- 8,000 user days of public and commercial recreation opportunities have been identified across this block of parks. Commercial opportunities will be offered to the private sector for their consideration as market conditions and demand warrant.
- $\checkmark$  There are no grazing or mineral tenures in these parks.

#### Management of Natural and Cultural Values

- ✓ Over 36% of the area of this block of parks will be managed as a Wilderness Conservation Zone (all within Bowron Lake Provincial Park) with no hunting and very limited human use and access.
- ✓ The majority of the area of these parks (57%) will be managed as a Wilderness Recreation Zone, where existing public and commercial recreation activities such as hunting, fishing, helicopter skiing, guide-outfitting, and hunting will be permitted.
- ✓ The Mitchell River Special Feature Zone comprises less than 1% of the area of the parks, but captures one of the most ecologically diverse and recreationally important areas in the block of parks. The focus of this area will be on increasing knowledge about grizzly bear, bull trout, rainbow trout and migratory bird/waterfowl values, as well as working with the public and tourism operators to carefully manage ecosystems and recreational experiences.
- ✓ Active management of bark beetles and fire will be undertaken in the "Fire and Forest Health Management Zone", comprising about 25% of the area of the parks. This management will ensure park infrastructure, recreational opportunities and adjacent commercial forestry values are protected. The remaining 75% of the parks will allow natural processes such as fire and disease to unfold with little management intervention. These natural processes will be monitored and intervention may be used where risks to other park values or adjacent commercial forests are identified.
- ✓ A program of ecological research and monitoring will be implemented in order to gain an increased understanding of wildlife and fish populations, population trends and habitat requirements.
- ✓ An Archaeological Overview Assessment will be completed on the Bowron Lake canoe circuit.
- ✓ The themes to be used in interpreting the history of these parks are "First Nations, fur trade, guideoutfitting and early efforts in grassroots conservation."

#### **Management of Recreation and Tourism**

✓ Approximately 5.2% of these parks are zoned as Natural Environment. This zone allows for motorized recreation and higher levels of human use. This zone is located on Mitchell and Ghost lakes, Cariboo River, in the Roberts Peak snowmobile area, along the Wolverine corridor and on Bowron Lake.

- ✓ The Intensive Recreation Zone is located in two areas one at the north end of Bowron Lake, where the campground, Registration Center and staging facilities are located, and the other at the Ghost Lake campsite. The Ghost Lake site will be upgraded and a small boat launch constructed as demand increases.
- ✓ New day use trails will be considered at Bowron Lake one to Sugarloaf Mountain and the other to Devil's Club Mountain. These trails, in conjunction with better access to fishing docks and a new day use area adjacent to the canoe dock, will make Bowron Lake more accessible to visitors and local users.
- ✓ Approximately 8,000 new user days for both public and commercial recreation have been identified in the plan. These opportunities include snowmobiling, wildlife viewing, air access hiking, fishing, boating, mountaineering, horseback riding, skiing, dogsledding and others. Commercial opportunities will be offered for private sector consideration as demand and market conditions warrant.
- ✓ The planning process considered the expansion of existing helicopter skiing operations in Cariboo Mountains Provincial Park. The plan recommends that new or expanded helicopter skiing will only be considered when it can be demonstrated, through scientific research and consistent with the Provincial Mountain Caribou Recovery Plan, that helicopter skiing can be done in a manner that is not detrimental to the local population of mountain caribou.

### **1.0 Introduction 1.1 The Management Planning Process**

This strategic plan is prepared by BC Parks as a document to guide park management over a ten-year term, while looking at least 50 years into the future. Under the direction provided by the *Park Act* and the *Park and Recreation Area Regulations*, the plan sets out objectives and strategies for conservation, development, interpretation and operation of these parks. The plan relies on social and technical information relating to such things as natural values, cultural activities, and recreation uses in addition to activities occurring on surrounding lands. The process for preparing the plan involved analysis of the overall goals of the parks, patterns of use, natural, cultural and recreational values, management objectives and possible sources of conflict among park policies.

The strategic plan not only establishes long-term management direction for the parks, but also deals with immediate issues. This means that the plan contains numerous statements describing management actions to be undertaken. Since BC Parks cannot carry out every task at the same time, the plan also sets out a schedule for implementation.

BC Parks endeavours to prepare plans with a high degree of public involvement. In the case of Bowron Lake, Cariboo Mountains, and Cariboo River provincial parks, two main bodies provided direction on the creation of the plan - the Advisory Group, and a series of smaller Task Groups.

In the spring of 2000, letters were sent to approximately 100 people inviting them to participate in an Advisory Group to help in the development of a plan for Bowron Lake, Cariboo Mountains, and Cariboo River parks. These people represented a broad cross section of interests and perspectives. As the process continued, an additional 180 people requested to be placed on the mailing list and to attend the Advisory Group meetings.

The Advisory Group met for the first time in May 2000 in Wells to discuss the planning process. At this meeting, the Advisory Group identified a number of key issues to be addressed in the plan. In an effort to minimize the numbers of meetings people would have to attend, a number of sub-committees of the Advisory Group (called Task Groups) were formed to explore these issues in more detail and to make recommendations back to the Advisory Group. The rationale behind this was that those individuals most interested/knowledgeable in a topic could devote time to a particular issue and not attend meetings on topics they were not interested in. In this way, people could choose their level of involvement in the process – just reviewing minutes and plan drafts from home; attending broad Advisory Group meetings; or attending detailed meetings where objectives and strategies were developed.

The next meeting of the Advisory Group was scheduled for November 2000, with additional meetings in February and September 2001. In between these meetings, the various Task Groups worked to define issues and develop detailed objectives and strategies.

The Task Groups included:

- Fish and Wildlife Management
   Non-motorized Recreation
   Motorized Recreation
   Public Information<sup>1</sup>
   Access/Adjacency
   Cultural Heritage
- 6. Bowron Lake
- 7. Bowron Lake canoe circuit
- 8. Mitchell River
- 9. Forest Health

For a number of these Task Groups (i.e. Bowron Lake, Bowron Lake canoe circuit, Mitchell River, Cultural Heritage) the members met several times to identify specific issues and concerns, explore interests, and to develop recommendations. In these Task Groups, there was consensus on recommendations. For a number of the other more technical Task Groups (i.e. Fish and Wildlife, Forest Health) it was considered too time consuming to have the public develop technical objectives and strategies. Instead, government resource staff put together draft words for the Task Groups to consider, review and edit.

In the remainder of the Task Groups (Motorized and Non-Motorized Recreation, Access and Adjacency), the members had a diverse range of opinions and could not come to agreement on recommendations. In these cases, the "scenario" approach was used, where the Task Groups developed a range of possible scenarios that would "solve" an issue. These scenarios, which included descriptions of the activities and how they might be managed, along with the pluses and minuses, were distributed several weeks prior to the Advisory Group meeting.

At the Advisory Group meetings (attended by anywhere from 20 - 120 people), the recommendations or scenarios from the Task Groups were reviewed. In the case where the Task Group had agreed upon its recommendations, the Advisory Group had the opportunity to examine and ask questions about certain recommendations. When scenarios were used, each scenario, along with the pluses and minuses, was presented and discussed. At the end of the meeting, each scenario was placed on flipchart paper and posted on the wall. Advisory Group members were given stickies and asked to place their stickie, marked with their name and affiliation, on their preferred scenario. The meetings ended with a discussion of the preferred options of the group. This formed part of the recommendations of the Advisory Group to BC Parks.

Based on recommendations from the Advisory Group, a first draft of the plan was written in June 2001. BC Parks planning staff continued to meet with groups to clarify interests and fine tune the draft plan. The draft was distributed to the Advisory Group by mail and was discussed at a final Advisory Group meeting in September 2001.

<sup>&</sup>lt;sup>1</sup> This Task Group never met.

### **1.2 Background**

#### **Bowron Lake Provincial Park**

Bowron Lake Provincial Park originally attracted the attention of conservationists around the turn of the last century, many of whom were concerned about declining fish and wildlife populations and felt the area would be popular as a tourist destination. In 1925, a number of local pioneers, including Joe and Betty Wendle, Louis Lebourdais, Thomas and Eleanor McCabe, and John Babcock were successful in having the area designated as a Game Reserve with no hunting permitted. As the area's natural beauty and abundant wildlife became renowned, the Parks Branch took an interest, placing part of the area under reserve in 1948. Staff reconnoitered possible boundaries during the 1950s, and in 1961 established Bowron Lake Provincial Park.

In 2000, Bowron Lake Park was enlarged by the addition of three areas that were recommended through the Regional land use plans adjacent to the park. These areas included the Wolverine drainage, the Betty Wendle drainage, and a tributary of the Upper Cariboo River drainage. These three areas became part of Bowron Lake Class A Provincial Park through the *Protected Areas of British Columbia Act* following recommendations by the Prince George and Robson Valley Land and Resource Management Plans (PGLRMP and RVLRMP). These areas were added to the boundaries of Bowron Lake Park, creating one park.

#### **Cariboo Mountains Provincial Park**

Cariboo Mountains Park was originally proposed for protection through a number of planning processes including Parks Plan 90, Parks and Wilderness for the 90s, a Ministry of Environment Wildlife Management Area/Wilderness Area proposal, the Protected Areas Strategy, the Cariboo Chilcotin Commission on Resources and Environment (CORE) and the Ministry of Forests' Wilderness Program. The park received Class A designation through the *Park Amendment Act, 1995* on July 12, 1995 following recommendations by the Cariboo-Chilcotin Land-Use Plan (*CCLUP*).

#### **Cariboo River Provincial Park**

Cariboo River Park was originally proposed for a Fish and Wildlife Reserve in the 1970s. In 1984 the Province designated it as a Wildlife Management Area. It was proposed for upgrade to a Class A Provincial Park through the Cariboo Chilcotin Commission on Resources and Environment (CORE) and received Class A designation through the *Park Amendment Act, 1995* on July 12, 1995 following recommendations by the Cariboo-Chilcotin Land-Use Plan (*CCLUP*).

The *Park Act* and *Park and Recreation Area Regulations* provide the legal framework for the management of these provincial parks. While Cariboo Mountains, Cariboo River and the additions to Bowron Lake Park were created to protect their ecological values, these parks, like others designated through the regional land use plans, have a commitment that activities such as recreation, hunting, trapping and backcountry tourism should continue to take place.

### **1.3 Relationship with Other Land Use Planning**

#### **Cariboo-Chilcotin Land-Use Plan**

In 1995, the *Cariboo-Chilcotin Land-Use Plan* created 17 new parks and protected areas. The *CCLUP 90 Day Implementation Process Report* contains a significant amount of direction on the management of these new areas. Direction included:

- Dominant ecological values should be protected, and that uses such as recreation, cattle grazing (except Junction Sheep Range), hunting, trapping and backcountry tourism, will be allowed.
- Mining tenures fully within the boundaries will be extinguished. Fair compensation will be established through negotiation between the Provincial government and the affected tenure holders.
- Hunting and trapping will continue to be allowed.
- The park[s] will be available, in principle and where appropriate, for commercial tourism and recreation. Development opportunities will be identified during area-specific management planning which will recognize the protection of the special natural values of each area and the provision for public non-commercial recreation. In some circumstances, development opportunities may include "fixed roof" accommodation.
- Existing approved levels of cattle grazing will continue. The maximum level of animal unit months (AUMs) will be set at the existing level of authorized AUMs as of October 24, 1994.
- Existing approved levels of cattle grazing will continue in all protected areas. Opportunities for enhancing grazing for expressed management purposes may be addressed in subsequent management plans, which would be developed in consultation with affected operators.
- No private land will be included within protected areas unless the government negotiates a mutuallyagreed purchase. Existing landowner use, development and access rights will be unaffected by protected areas.

Click to view plate 3. Looking south down Niagara Creek in Cariboo Mountains Park.

#### **Robson Valley Land and Resource Management Plan**

The *RVLRMP* recommended the protection of the Upper Cariboo River and Betty Wendle areas, which have since been added to Bowron Lake Provincial Park. Direction for these two areas states the following:

#### **Betty Wendle**

- Before resource activities are approved adjacent to protected areas, referral comments from BC Parks will be considered.
- Honour [the] existing heliski license.
- For heliskiing, minimize the number of logged helipads by using natural openings where possible and where necessary allow minimal tree falling for safe helicopter landings.
- Honour [the] existing guiding and trapping tenures.
- Where resource development is planned close to protected area boundaries, the resource tenure holder(s) are responsible, through appropriate survey methods, to ensure development is outside protected area boundaries.
- Watershed restoration project is approved and can proceed in this protected area. [This line appears to have been a mistake, as no watershed restoration projects have been proposed in the watershed].

Click to view plate 4: Looking east into the Betty Wendle drainage. Isaac Lake is in the foreground.

#### [Upper] Cariboo River

Same as above, but add

• Review [the] no staking reserve once proposed protected area is approved.

Click to view plate 5. Looking northeast into the Cariboo River addition to Bowron Lake Park.

#### Prince George Land and Resource Management Plan

The *Prince George LRMP* recommended the Wolverine River addition to Bowron Lake Park. The *PGLRMP* document includes the following specific recommendations on activities in this area:

Activity	Allowed/Not Allowed
Hunting	Deferred to BC Parks planning process
Fishing	Allowed
Fish Stocking/Enhancement	Not allowed
Trapping	Allowed
Horse Use and Pack Animals	Deferred to BC Parks planning process
Cattle Grazing	Not allowed
Commercial Guiding (hunting)	Limited to current tenure use or to designated areas
Lodges/Cabins	Limited to current tenure use or to designated areas
Snowmobiling	Deferred to BC Parks planning process
Mechanized activities	Deferred to BC Parks planning process
Water-based motorized activities	Deferred to BC Parks planning process
Aircraft Access	Limited to current tenure use or to designated areas
Heli-skiing	Not allowed
Heli-hiking	Not allowed
Commercial guiding (non-hunting)	Allowed

In relation to a potential road corridor, the *PGLRMP* states:

"A road has been proposed through this area which would connect Highway 16 (near McBride) with Highway 26 (near Wells). The road is not feasible at this time, however, and therefore, a corridor has not been delineated. In the event that it becomes feasible in the future, the corridor location and the impacts on the protected area will be considered and addressed at that time."

Click to view plate 6: Looking northeast up the Wolverine Creek addition to Bowron Lake Park. The cutblocks were logged in the mid 1980s and are visible from the canoe circuit on Isaac Lake.

### **2.0 The Role of the Protected Areas**

### **2.1 Provincial and Regional Context**

Bowron Lake, Cariboo Mountains, and Cariboo River parks straddle three ecosections – the Bowron Valley (BOV), Quesnel Highland (QUH) and the North Columbia Mountains (NCM). With the new protected areas designated through the *CCLUP*, and the Robson Valley and Prince George LRMPs, 23% of the NCM ecosection is currently protected, 3% of the BOV ecosection is protected, and 12% of the QUH ecosection is protected.

In the Bowron Valley ecosection, Bowron Lake Park is the main protected area, with a contribution of 19,330 hectares. Barkerville and Wendle parks add very minor contributions.

In the Quesnel Highland ecosection, Wells Gray is the largest park, with 64,298 hectares in the ecosection. All 3,137 hectares of Cariboo River Park, 11,412 hectares of Bowron Lake Park and 15,529 hectares of Cariboo Mountains Park are also in the QUH ecosection. Other small parks in the Quesnel Highland include Canim Beach and Cedar Point.

The huge North Cariboo Mountains ecosection includes a variety of existing and new protected areas. 83,669 hectares of the original Bowron Lake Park, 97,686 hectares of Cariboo Mountains Park, 270,249 hectares of Wells Gray Park and 129,366 hectares of Glacier National Park are all located in the NCM.

In addition to these four existing parks, new protected areas from the Prince George LRMP in this ecosection include, the 5,200 hectare Wolverine addition to Bowron Lake, Sugarbowl/Grizzly, Ptarmigan Creek, Erg Mountain, and Slim Creek. Some of the new protected areas from the Robson Valley LRMP in this ecosection include the 6,060 hectare Upper Cariboo River addition to Bowron Lake Park, the 14, 415 hectares Betty Wendle addition to Bowron Lake Park, the Upper (Middle) Raush River, the Lower Raush River, portions of the West Twin Protected Area and the upper portions of the Foster Arm Protected Area.

Other smaller parks in the NCM ecosection include Goosegrass Creek, Martha Creek and the Upper Adams River.

Across British Columbia, Bowron Lake and Cariboo Mountains Park are similar to many large mountainous parks. Bowron Lake Park to the north provides a world class canoe circuit, while Wells Gray Park to the south draws visitors for both canoeing and backcountry hiking. Cariboo Mountains Park offers good backcountry recreational and tourism opportunities for wilderness oriented activities such as hiking, wildlife viewing, hunting, and fishing. Cariboo Mountains also offers provincially significant helicopter skiing opportunities.

#### Click to view Regional Context and Ecosections Map

### **2.2 Significance in the Protected Areas System**

#### **Cariboo Mountains**

The 113,092 hectare Cariboo Mountains Park contains natural and recreational values of both provincial and regional significance.

Cariboo Mountains Park is located in the interior wetbelt of British Columbia, in an area often referred to as a "snowforest" for its very productive ecosystems, large trees and high snowfalls. The interior wetbelt stretches from the Kootenays to just north of Bowron Lake, where the Cariboo Mountains eventually flatten out into the interior plateau. Cariboo Mountains Park protects a number of complete and partial watersheds in the Cariboo Mountains, linking Bowron Lake Park to Wells Gray Park. The complete Niagara Creek watershed, from its headwaters in the icefields of the Quanstom Glacier in Cariboo Mountains to the shores of Quesnel Lake is included in the park. The majority of the very diverse Mitchell Lake watershed, from Roberts Glacier to the ecologically diverse Lower Mitchell River, is also included within the park boundary. The headwaters of the Matthew River flowing into Ghost Lake are part of Cariboo Mountains Park, as well as the headwaters of a number of tributaries of the Matthew River Valley adjacent to the park.

The park contains a diverse range of landscapes, including old western red-cedar and hemlock forests on valley bottoms/lower elevations and old spruce and subalpine fir forests at higher elevations. It also includes large lakes, tarn lakes, slow meandering rivers and wetlands, highland plateau areas with grasses and sedges, alpine forests, and glaciers and icefields. This range of landscapes represents an excellent example of the interior wetbelt rainforest.

Click to view plate 7: Looking northeast across the Matthew River Valley towards Ghost Lake. The approximate park boundary is indicated by the dotted line.

In addition to its wetbelt vegetation and range of landscapes, Cariboo Mountains contain provincially significant wildlife and fisheries populations. The park supports one of the few viable populations of grizzly bears to have access to an abundant run of spawning sockeye salmon in an undeveloped and natural setting. The park is also home to the recently red-listed mountain caribou population, as well as the blue-listed wolverine and blue-listed bull trout.

Recreationally, Cariboo Mountains has a provincially significant catch and release angling experience on the Mitchell River, which supports the large bull trout and genetically unique Quesnel Lake rainbow trout, which grow up to 20 pounds. Other recreational activities are only considered regionally or locally significant. The difficult access, distance from communities, and very rugged terrain make the park a challenge to use, but also supply excellent wilderness opportunities for those willing to make the effort.

#### **Bowron Lake**

This 139,776 hectare park contains a mix of natural and recreational values of regional, provincial and international significance.

The park contains many intact watersheds, with waters that flow both north and southwest from the park. Waters from the Betty Wendle, Wolverine, Cariboo River and other valleys on the eastern side of the park drain into the Cariboo River, which then joins the Matthew River (draining portions of Cariboo Mountains Park) and eventually combines with the Quesnel River and then into the Fraser River at Quesnel. Waters from the northeastern and western portions of the park drain north into the Bowron River, which then continues in a northerly direction to join the Fraser River east of Prince George.

Like Cariboo Mountains Park, most of the eastern portions of Bowron Lake Park are located in the interior wetbelt, characterized by rugged topography, high snowfalls in winter and significant rainfall in summer. The landscape of the eastern section of the park is dominated by Isaac Lake, a very deep, cold, lake overlooked by steep, snowcapped mountains. The northwestern portions of the park are quite different. The landscape is dominated by rolling terrain, extensive wetlands and shallow, warm lakes.

Bowron Lake Park contains a diversity of landscapes, including a regionally significant range of lower elevation old spruce/subalpine fir, pine, western red cedar/hemlock forests and higher elevation spruce and fir forests. Large/deep and small/shallow lakes, alpine ridges, steep valley slopes, gently sloping valley bottoms, and large and small wetlands are distributed throughout the park. The park also contains a range of low, medium and high gradient streams.

In addition to its wide variety of vegetation and landscape features, Bowron Lake Park also contains significant fisheries, wildlife and waterfowl values. It is one of the few protected areas in the province that offers a sanctuary for wildlife. This, combined with the excellent summer and winter moose habitat, small populations of the red-listed mountain caribou, habitat for black bears and the blue-listed grizzly populations and limited access and use of the center of the park, make the park a very significant wildlife refugia. The park contains wild stocks of bull trout, lake trout and kokanee. It also has a population of genetically unique, very large rainbow trout similar to the Gerrard and Quesnel Lake rainbows. The upper Bowron River supports a large population of spawning sockeye salmon which in turn support the large populations of grizzly bears making their home in the Bowron River watershed. The kokanee fishery at Bowron Lake has been popular as a food and sport fishery since the first Cariboo Gold Rush in the 1860s and continues to be a draw for anglers across the region.

Recreationally, Bowron offers an internationally recognized wilderness canoe circuit, the largest of its kind across British Columbia's protected area system. Other regionally or locally significant recreational opportunities in the park include day boating, angling, wildlife viewing, two and three day canoe trips, and some limited hiking.

#### **Cariboo River**

Cariboo River Park contains the highest value moose winter range in the Cariboo Region. This park is primarily a portion of the Cariboo River Valley from Cariboo Lake to Kimball Lake. It protects extensive wetland habitats, riparian forests and coniferous forest habitats. Because it is significantly lower in elevation than the wetlands in Bowron Lake and the Matthew River valley, this area is a draw to moose, who leave these higher areas in winter to feed on the extensive willow shrub and herbaceous vegetation along the Cariboo River.

While the major reason Cariboo River was protected is because of the excellent critical moose winter range, the area also contains one of the three most significant areas for waterfowl in the Cariboo

Mountains. It ranks above both the Mitchell wetlands and the Bowron wetlands for migratory bird and waterfowl values.

It protects a significant amount (10%) of the wet cool Interior Cedar Hemlock biogeoclimatic zone (ICH wk) in the Quesnel Highland ecosection and is one of the few places in the Cariboo Mountains that contain Douglas-fir and spruce forests.

Recreationally, Cariboo River has excellent access for river-based activities such as driftboating, fishing, canoeing and wildlife viewing.

Click to view plate 8: Looking south down Cariboo River Park. Kimball Lake is in the foreground. Approximate park boundary marked in dotted line.

### **2.3 Protected Area Roles**

#### **Cariboo Mountains Park**

#### **Conservation Role**

• Cariboo Mountains is representative of the Interior Cedar Hemlock (ICH), Engelmann Spruce Subalpine Fir (ESSF) and Alpine Tundra (AT) found in the Bowron Valley and Quesnel Highland ecosections. It contains six biogeoclimatic subzones and variants, including:

Biogeoclimatic Subzone or Variant	Total Amount in Province (ha)	Total Amount Protected in Province (ha)	Amount Protected in Cariboo Mntns. (ha)	% of Provincial Total Protected in Cariboo Mntns.
ESSFwk1	615,621	73,320	19,392	26%
ESSFwc3	271,842	88,873	24,978	28%
AT	18,187,590	3,787,438	46,632	1%
ICHwk1	36,093	80,208	17,627	22%
ICHwk2	142,175	16,136	16,073	>99%
ICHwk4	57,210	23,481	2,914	12%
Lake	2,295,198	280,416	3,098	1%
Total			113,092	

- Protects large unroaded predator-prey ecosystem of the Cariboo Mountains in conjunction with Wells Gray and Bowron Lake parks.
- Provides critical spawning, rearing and foraging habitats for many salmonids, and maintains populations of sockeye, chinook, coho, kokanee, bull trout, and rainbow trout. Sockeye are the major anadromous species, with a run of up to 200,000 in high cyclic years.
- Supports and maintains significant numbers of the sport fish populations in Quesnel Lake.
- Contains critical winter habitat for moose, as well as some of the most productive areas for waterfowl in the Cariboo Mountains.

- Protects habitat of a portion of the "Wells Gray North" subpopulation of mountain caribou. This herd of less than 200 has recently been red-listed. The park contains areas of early winter, summer, calving and late winter habitat.
- Includes excellent habitat areas for blue-listed grizzly bear and wolverine populations.
- Incorporates mountain goat winter ranges throughout the park in addition to habitat and populations of black bears, wolves and moose.

#### **Tourism and Recreation Role**

- The recreation role (public and commercial) of Cariboo Mountains is focused on providing recreational opportunities dependant upon a remote, rugged wilderness setting. Hiking, mountaineering, and hunting will be based from logging roads that access cutblocks adjacent to the park. Most of the camps and inholdings in the park are accessed by floatplane.
- The significant fish and wildlife values provide opportunities for wildlife viewing, river angling and hunting in a roadless, wilderness setting.
- Motorized recreation occurring at the time of the park creation provides opportunities for very remote, skilled snowmobiling in several high elevation areas, as well as helicopter skiing in more remote areas of the park.

#### **Cultural Heritage Role**

- Current information<sup>2</sup> indicates a number of bands may have used the park in the summer and fall on the *seasonal round* for a combination of hunting, fishing, and gathering of food plants, making the most efficient use of the seasonally available resources.
- Little is documented of the First Nations or more recent European settlement or use of the area, making its role in the system unclear.
- First Nations use of the area is not clearly understood at this time.

#### **Bowron Lake Park (including additions)**

#### **Conservation Role**

• Bowron Lake is representative of the Interior Cedar Hemlock, Engelmann Spruce Subalpine Fir, Subboreal Spruce and Alpine Tundra found in the Bowron Valley, Quesnel Highland and North Columbia Mountains ecosections. It contains six biogeoclimatic subzones and variants, including:

Biogeoclimatic Subzone or Variant	Total Amount in Province (ha)	Total Amount Protected in Province (ha)	Amount Protected in Bowron Lake Park (hectares)	% of Provincial Total Protected in Bowron Lake Park
ESSFwk1	615,621	73,320	35,949	49%
ESSFwc3	271,842	88,873	25,676	29%
AT	18,187,590	3,787,438	22,238	<1%

<sup>&</sup>lt;sup>2</sup> A Cultural Heritage Overview of the Cariboo Forest Region. Diana Alexander. March 1997.

SBSwk1	829,807	31,885	25,682	81%
ICHwk4	57,210	23,481	17,644	75%
ICHmk3	105,166	4,347	4,035	93%
Lake	2,295,198	280,416	8,552	3%
Total			139,776	

- Protects an unroaded and pristine salmon/grizzly ecosystem with little human intervention, access or hunting; the only such opportunity in the interior of British Columbia.
- Protects a large, intact and unroaded predator-prey ecosystem with no hunting (except in the additions). The predator-prey system also includes the adjacent Cariboo Mountains Park and Wells Gray Park, resulting in the fifth largest system of contiguous protected areas in the province.
- Protects habitat of a portion of a subpopulation of mountain caribou. The park contains areas of early winter, summer, calving and late winter habitat.
- Provides critical spawning, rearing and foraging habitats for many salmonids. Sockeye are the major anadromous species.
- Bowron wetlands contain some of the most productive areas for waterfowl in the Cariboo Mountains.
- Includes excellent habitat areas for blue-listed grizzly bear and wolverine populations.

#### **Tourism and Recreation Role**

- Protects an exceptional backcountry canoeing opportunity, which can be started and finished at one road accessible point. Other activities, such as wildlife viewing, nature interpretation and fishing, combine to enhance the experience.
- Provides a year-round, road accessible area for winter recreational activities, including snowshoeing, dogsledding and skiing in particular.
- Provides a year-round corridor (dependant upon feasibility studies) for recreational hikers, horsebackers and snowmobilers wishing to traverse between the Robson Valley and the Cariboo.
- A secondary role of the park is to provide day use opportunities at Bowron Lake. Fishing, boating (power and paddling), wildlife viewing in the Bowron wetlands, interpretation, short hikes, swimming and picnicking are all popular activities.
- The chain of lakes, along with Barkerville Historic Town, have the key role of being a regional marketing tool as many of the 6,000 9,000 visitors a year to the area are targeted by other tourism operators, hotels, restaurants and services.

#### **Cultural Heritage Role**

- Protects cultural heritage (archaeological and historic) resources of regional significance.
- Represents an excellent example of the trapping and guiding history of the first Cariboo Gold rush era, as well as providing an example of early grass-roots conservation efforts.
- Represents a number of First Nations archaeological and traditional use sites typical of an interior lake with salmon.
- First Nations use of the area is not clearly understood at this time.

#### **Cariboo River Park**

#### **Conservation Role**

• Represents the Interior Cedar Hemlock wet, cool subvariant found in the Quesnel Highland Ecosection. Includes one of the few areas with large Douglas-firs at low elevation valley bottoms in addition to extensive riparian areas (including wet spruce forests and shrub and herbaceous wetlands).

Biogeoclimatic Subzone or Variant	Total Amount in Province (ha)	Total Amount Protected in Province (ha)	Amount Protected in Cariboo River (ha)	% of Provincial Total Protected in Cariboo River
ICHwk4	57,210	23,481	2,923	12%
Lake	2,295,198	280,416	215	<1%
Total			3,138	

- Includes the highest value critical moose winter range across the Cariboo Region.
- Wetlands are categorized as Class 3M in the Canada Land Inventory for waterfowl and migratory birds, the highest value area across the Cariboo Mountains.

#### **Tourism and Recreation Role**

- Provides road access to an area of very rich wildlife values. Rough logging roads travel parallel to the park and the main 3100 Road crosses the park via a bridge.
- Cariboo River primarily provides a roaded, mid-country type of recreation experience. The easy road access via the 3100 Road (less than one hour from Wells and Likely) makes this park ideal for summer commercial recreation opportunities, including wildlife viewing, hunting, driftboating, canoeing and fishing. The easy access also supports the same uses by the public.
- The rich wildlife values of this area are similar to those found in the Mitchell and Bowron wetlands, but without the significant bear-human conflicts and access challenges of those areas.
- Lack of suitable foreshore in the riparian area and potential displacement of wildlife limits backcountry camping opportunities.

#### **Cultural Heritage Role**

- First Nations use of the area is not clearly understood at this time.
- The area had been used for mineral exploration, placer mining, trapping and hunting, but lacks good interpretation values such as those found at Bowron Lake, Barkerville or Quesnel Forks.

Click to view plate 9: Typical backcountry in Cariboo Mountains Park. This is the height of land separating Bowron Lake Park from Cariboo Mountains Park .

### **2.4 Vision Statements**

The vision statements outlined below are intended to provide direction for the long-term management of Bowron Lake, Cariboo Mountains and Cariboo River parks. The vision statements describe the condition of the parks 50 years from now if the intent of the management plan is followed. They **are not meant to describe the current condition of these parks**. The vision statements are used to provide context and guidance for park managers to make decisions about stewardship, recreation and other activities in the parks. The appropriateness of any new activities that may not have been contemplated when the plan was written should be considered in the context of these vision statements.

#### Vision for Bowron Lake Park

The primary role of Bowron Lake Park is to protect a large, benchmark area as a wildlife refugia while providing an internationally significant wilderness canoeing opportunity around the chain of lakes. Management of the area reflects its importance as a preserve for grizzly and black bears, mountain caribou, moose, waterfowl and songbirds, salmon and other fish species, as well as other species that managers may not yet know about.

Recreation in the area continues to focus on the chain of lakes, with only casual and unstructured use in the interior and periphery of the park. User numbers on the chain itself are managed very carefully in order to support the internationally significant wilderness experience. Facilities to support summer use are being repaired and upgraded for safety reasons, but no new structures have been built since the new millenium began. Increased opportunities for spring and fall shoulder season use have occurred as the result of increased education and public information. As such, overall annual user numbers are up and visitors are still enjoying quality wilderness experiences. As more areas around the province become roaded and "developed", the carefully managed wilderness of Bowron Lake Park has become more valuable and important across British Columbia's system of protected areas.

Winter use of the park has also increased since the turn of the new century. Skiers, snowshoers, dogsledders and other non-motorized recreationists use the chain of lakes. Cabins were improved and upgraded as use slowly increased. While snowmobiling has not been permitted throughout the park, park managers worked closely with snowmobile groups to establish a snowmobile corridor that connected the Cariboo to the Robson Valley through the park.<sup>3</sup> Studies were jointly conducted to ensure the corridor was safe, met the needs of the snowmobiling community and had negligible impact on the wildlife in the area.

Vegetation in the park is well on its way to having its natural mosaic of age classes reestablished. It is envisioned that the population of beetles that peaked around the turn of the new millenum will return to its natural cycles, and that lightning-caused fires have been allowed to burn in the interior of the park. These natural landscape disturbances have been explained and interpreted in the Registration Center, and park visitors are very supportive of permitting these natural processes to unfold.

Another result of the management plan completed in 2001 was that the local and regional community has had a greater sense of stewardship in the park. A day use area, better public information and a series of trails were developed around the entrance to the park, and local residents use the lake for fishing, boating, canoeing and other forms of low-impact recreation. Visitors stay a few extra days to enjoy these amenities as well as those provided by the private sector. Local residents meet on a regular basis with park managers to discuss surveys, potential user conflicts and issues, and ways that the community can be involved in the management of the area.

<sup>&</sup>lt;sup>3</sup> Note this corridor is subject to a feasibility study. The vision statement does not presuppose an outcome of the study.

The three areas that were added to the park in 1999 (Betty Wendle, Wolverine, and Upper Cariboo River) continue to have pre-existing uses occurring, including hunting, heliskiing, trapping and guiding.

#### Vision for Cariboo River Park

The vision for Cariboo River Park is primarily focused on the critical moose wintering grounds and the wetland values located along the Cariboo River. Research and monitoring has increased understanding and knowledge of this important riparian area and the migratory bird and waterfowl values in the area. The herbaceous vegetation and wetlands along the Cariboo River are managed to ensure they are in proper functioning condition, and recreational activities, both commercial and public, are managed to ensure the ecological integrity of the area is maintained.

The Cariboo River corridor is a destination area for people wishing to see wildlife in a natural setting, and is also used for fishing, drift boating, canoeing and kayaking as well as trapping and hunting. Local guides take people on various tours, and the communities of Likely and Wells, in recognition of the prominent role this park plays on the 3100/8400 road, have taken a role in providing information on the user ethics and values of the area.

#### Vision for Cariboo Mountains Park

Cariboo Mountains Park is managed primarily to protect its remote, virtually intact wildlife, fish and bird habitat values while allowing its lands and waters to be available for recreation activities that take their meaning from the isolation, rugged landscapes and wilderness values of the park. The management of the area reflects the importance of the habitat for the mountain caribou, grizzly bear, mountain goat, moose, wolverine, salmon, bull trout and waterfowl populations in addition to other ecosystem interactions. Park management also reflects the historic use of the area by guides, fishers, hunters, First Nations, private land owners, trappers, snowmobilers, heliskiiers and other recreational users.

The endangered mountain caribou continues to recover as the result of careful management both inside and outside the park. This recovery was due in part to innovative changes in logging practices in areas adjacent to the park as well as new procedures for the management of predators throughout the Cariboo Mountains. Public and commercial recreational groups have worked cooperatively with government to increase shared knowledge about interactions with all wildlife and have worked to manage and monitor their activities in a way that minimized impacts from traditional uses on wildlife.

Recreational use of Cariboo Mountains Park has increased, as the wilderness values contained in the park became increasingly rare across the province. The isolation, difficult access, very rugged terrain and high wildlife values in the park however, all combined to place a natural cap on the number of users using the park. Many of the activities are guided, which has provided jobs for residents in surrounding local communities while ensuring a high degree of compliance around attempts at minimizing human-wildlife conflicts. Hiking, mountaineering, wildlife viewing, camping, boating, fishing, sightseeing and some limited helicopter skiing and snowmobiling are all activities occurring in the park.

Private landowners are continuing to use their property as they desire and have rights to access and develop these lands subject to relevant regulations.

### **2.5 Relationship with First Nations**

Portions of Bowron Lake, Cariboo Mountains, and Cariboo River parks have been identified in the asserted Traditional Territories of four First Nation groups. They include the Red Bluff Band, Lheit-Lit'en Nation, Soda Creek Band and Williams Lake Indian Band.

BC Parks will continue to work with these bands on the implementation of the plan. All discussions with the bands will be consistent with the "government to government" relationship between the Province and First Nations.

This plan will not prejudice any treaty negotiations.

Click to view plate 10: Canoeist preparing to enter Kibbee Lake after the first portage on the Bowron Lake canoe circuit

### **3.0 Protected Area Zoning**

BC Parks uses zoning to assist in the planning and management of provincial parks. In general terms, zoning divides an area into logical units to apply uniform and consistent management objectives for conservation and recreational values. The zones reflect a mix of intended land use, existing patterns of use, the degree of human use desired, and the level of management or development required.

At one end of the spectrum, the Intensive Recreation Zone indicates a portion of a park that is appropriate for high levels of recreation and facility development. At the opposite end, the Wilderness Conservation Zone indicates an area of a park that receives the highest level of resource protection and minimal human presence. Between these two extremes, there are three additional zones providing a range of conservation and recreation management priorities - Natural Environment Zone, Special Feature Zone and Wilderness Recreation Zone. Appendix C has a full description of the BC Parks zoning policy.

#### 3.1 Zoning Rationale

#### Zoning Rationale - Bowron Lake Park

The majority of Bowron Lake Park is zoned as *Wilderness Conservation*. This zoning reflects the vision of the interior of the park as a wildlife reserve/benchmark with very little human presence and interference.

The canoe circuit and the three additions (Betty Wendle, Wolverine, Upper Cariboo River) are zoned as *Wilderness Recreation*. This zone allows for the continuation of hunting, trapping (in the Wolverine), commercial guiding, existing helicopter skiing and helicopter hiking operations. The Wilderness Recreation zoning supports the idea that the circuit supplies a carefully managed, internationally significant wilderness-oriented canoe and kayak experience, and confirms relatively low levels of use and minimal development.

The Goat River/Wolverine Trail corridor is zoned as *Natural Environment*, as is Bowron Lake itself. This zoning allows for higher levels of human presence and the associated improvements and maintenance. In the case of Bowron Lake, this recognizes motorized boats, signage, fishing, and other day oriented activities, while the Wolverine Trail will be considered for a four-season connection to the Robson Valley. In the summer, the corridor will be a non-motorized hiking trail, possibly part of a national system, and in the winter the corridor may function as a potential snowmobile corridor, subject to further wildlife research and safety/feasibility studies. (see Section 4.5 Access and Adjacency for details on a potential snowmobile corridor).

The very north end of Bowron Lake Park is zoned *Intensive Recreation*, which facilitates a road access campground and other supporting infrastructure.

#### Zoning Rationale - Cariboo Mountains Park

The vast majority of Cariboo Mountains Park is zoned as *Wilderness Recreation* in recognition of preexisting hunting, trapping, helicopter skiing and commercial guiding operations. This zoning supports the vision of the area as a huge undeveloped refugia for wildlife, while allowing for some new non-motorized commercial tourism and public recreation activities that are designed to be compatible with wildlife and wilderness recreation values.

Several areas – Mitchell Lake and the eastern portion of Ghost Lake - have been zoned as *Natural Environment* due to higher expectations of encountering people in these areas, existing motorized boat traffic, fishing activities, float plane operations and commercial tourism facilities on both lakes. An area around Roberts Peak has also been zoned Natural Environment to permit existing snowmobile activities.

The western end of Ghost Lake is zoned as *Intensive Recreation* in recognition of the vehicle accessible campsite and primitive boat launching facilities located there. It is expected this campsite will be used to service Ghost Lake as well as those people on day trips to the Mitchell River, Matthew Valley or on the loop from Likely to Barkerville.

The lower Mitchell River and Mitchell Wetlands are zoned as *Special Feature*. This zoning acknowledges the provincially significant fish, grizzly bear, and migratory waterfowl habitat, in addition to the many other environmental values of this special part of the park. The zoning is intended to reflect the numerous recreational and commercial uses that occur in this area, including guided fishing, hunting, trapping and wildlife viewing. The *Special Feature* zone recognizes the increased management of these activities that is required to maintain the ecological integrity of the area.

#### Zoning Rationale - Cariboo River Park

The entire Cariboo River Park is zoned as *Natural Environment*. This zoning supports the primary role of Cariboo River Park as providing critical winter range for moose as well as providing a blend of river-based recreation activities in the summer.

#### **3.2 Wilderness Conservation Zone**

#### **Zone Objective**

The primary objective of the Wilderness Conservation Zone is to protect a remote, undisturbed natural landscape as a refugia for wildlife and a benchmark for natural processes.

#### **Zone Description**

The largest area of the Wilderness Conservation Zone is in the interior of Bowron Lake Park, but it also continues around the outside of the Chain of Lakes. The total size of this zone is 93,381 hectares, or 36.5 % of the parks.

#### **Key Zone Strategies**

Human use will be extremely low and management/intervention in this zone will be negligible. Fire will be allowed to run its natural cycles, but may also be reintroduced in areas with unnatural seral stage distributions. Mechanized use and air access for recreation is prohibited in this zone. Strategies for this zone include:

- Conservation of natural values and natural processes takes precedence over recreation use in this zone.
- Minimal management intervention in these areas so natural processes occur unimpeded. Fire may be used as a management tool to reintroduce natural seral stage distribution, and about 10% of the zone will also be subject to management that will minimize the impact of insects on values adjacent to the park.
- Hunting is not allowed in this zone.
- Bowron wetland upstream of the "no access beyond this point" sign will continue to be closed to the public as a wildlife refugia. Huckey Creek caves will also be closed to the public due to extremely high grizzly bear values and safety issues with the caves themselves.

#### Allowable Activities and Levels of Use in the Wilderness Conservation Zone

Activity/Use/Facility	Allowable in the Wilderness Conservation Zone
Activity	
Beach activities (swimming, sunbathing)	N/A
Boating (power)	Ν
Boating (non-power)	N (none past limits to navigation on Bowron River)
Camping – no trace	Y
Camping –other	N
Commercial Recreation (facility-based)	N
Commercial Recreation (non-facility based)	N
Fishing	Y
Hiking and walking	Y
Hunting	 N
Natural and cultural values appreciation(birding, photography, wildlife viewing)	Y
Recreational gold panning and rock hounding	Ν
Scientific research (manipulative activities)	Μ
Scientific research (specimen collection)	Μ
Skiing (downhill or cross country tracked)	Ν
Skiing (helicopter or cat assisted)	Ν
Skiing (other)	Y
Trapping	Ν
Use	
Aboriginal Rights	Y
Aircraft Access	Ν
Exotic Insect/disease control	М
Filming (commercial)	Ν
Fire Management (prescribed fire)	Y
Fire Management (prevention)	N/Y (see fire management plan)
Fire Management (suppression)	N/Y (see fire management plan)
Fish Stocking and enhancement	N
Forest insect/disease control	Y/N (see vegetation management zoning)
Grazing (domestic livestock)	N
Guide outfitting (fishing)	N
Guide outfitting (hanning)	N
Guide outfitting (nature tours)	N
Horse use/pack animals (not exotic)	N
	IN

Motorizes water access	Ν
Non-motorized water access	N
Noxious weed control	Y
Off - road access (mechanical activities)	N
Off - road access (motorized – not snowmobiles)	N
Off - road access (snowmobiles)	N
Pack animals (exotic)	N
Facility	
Administration buildings and compounds	N
Backcountry huts and shelters	N
Boat launches	N
Campgrounds with picnic areas (vehicle accessed and serviced)	N
Campgrounds (other)	N
Communication sites	N
Interpretation and information buildings	N
Roads and parking lots	N
Ski hills and snowplay areas	N
Lodges and other service accommodation	N
Trails (hiking, cycling, cross –country skiing)	Y (short trails only - see Bowron Lake canoe circuit strategies)
Utility corridors	N
Water control structures	N

Specific direction on management in this zone can be found in Section 4.

Click to view plate 11: Looking east up to the headwaters of Bowron Lake Park. This is the heart of the Wilderness Conservation Zone.

#### 3.3 Wilderness Recreation Zone

#### **Zone Objective**

The primary objective of the Wilderness Recreation Zone is to protect a remote, undisturbed natural landscape and to provide backcountry recreation opportunities dependent upon a pristine environment where air access may be permitted to designated sites.

#### **Zone Description**

The Wilderness Recreation Zone is the largest zone across this block of parks. It covers 146,588 hectares, or 57% of the parks, and covers the large majority of Cariboo Mountains Park, the Betty Wendle, Upper Cariboo River areas of the Wolverine addition outside the Natural Environment Zone, and the Bowron Lake canoe circuit.

#### **Key Zone Strategies**

Key strategies for this zone include:

- Recreational activities managed to ensure ecological integrity is unimpaired.
- Helicopter skiing and helicopter hiking are permitted only in existing tenured areas (existing helicopter hiking and helicopter skiing in Betty Wendle, helicopter skiing in the headwaters of the

Mitchell and Niagara drainages, and helicopter skiing north of the river in the Upper Cariboo River addition).

- Hunting is permitted in this zone (except Bowron Lake canoe circuit), subject to regulations.
- Hunting and aircraft landing are not permitted around the Bowron Lake canoe circuit. The circuit will be managed for its internationally significant wilderness recreation values. More detail can be found in section 4.7 Bowron Lake canoe circuit.

Click to view plate 12: Looking east into the Upper Niagara Creek in the Wilderness Recreation Zone.

#### Allowable Activities and Levels of Use in the Wilderness Recreation Zone

Activity/Use/Facility	Allowable in the Wilderness Recreation Zone
Activity	
Beach activities (swimming, sunbathing)	Y
Boating (power)	N (except for management)
Boating (non-power)	Y
Camping – no trace	Y
Camping –other	Y
Commercial Recreation (facility-based)	Y
Commercial Recreation (non-facility based)	Y
Fishing	Y
Hiking and walking	Y
Hunting	Y (except Bowron canoe circuit)
Natural and cultural values appreciation(birding, photography, wildlife viewing)	Y
Recreational Gold panning and rock hounding	N
Scientific research (manipulative activities)	Y
Scientific research (specimen collection)	Y
Skiing (downhill or cross country tracked)	Ν
Skiing (helicopter or cat assisted)	Y (existing only and some very limited hiking opportunities as outlined in appendix A)
Skiing (other)	Ý
Trapping	Y (except Betty Wendle and Bowron Circuit)
Use	
Aboriginal Rights	Y
Aircraft Access	Y (except Bowron Circuit)
Exotic Insect/disease control	Y
Filming (commercial)	М
Fire Management (prescribed fire)	Y
Fire Management (prevention)	N/Y (see fire management plan)
Fire Management (suppression)	N/Y (see fire management plan)
Fish Stocking and enhancement	N
Forest insect/disease control	Y/N (see vegetation
	management zoning)
Grazing (domestic livestock)	Ν
Guide outfitting (fishing)	Y (except Bowron Circuit)
Guide outfitting (hunting)	Y (except Bowron Circuit)

Guide outfitting (nature tours)	Y
Horse use/pack animals (not exotic)	Y (except Bowron Circuit)
Motorized water access	N
Non-motorized water access	Y
Noxious weed control	Y
Of-road access (mechanical activities)	Ν
Off-road access (motorized – not snowmobiles)	Ν
Off –road access (snowmobiles)	N/Y (see 4.8 for details)
Pack animals (exotic)	Y (except Bowron Circuit)
Facility	
Administration buildings and compounds	N
Backcountry huts and shelters	М
Boat launches	Ν
Campgrounds with picnic areas (vehicle accessed and serviced)	Ν
Campgrounds (other)	Y (around canoe circuit)
Communication sites	Ν
Interpretation and information buildings	Ν
Roads and parking lots	N
Ski hills and snowplay areas	Ν
Lodges and other service accommodation	N
Trails (hiking, cycling, cross –country skiing)u	Ν
Utility corridors	Ν
Water control structures	N

Specific direction on management in this zone can be found in Section 4.

#### **3.4 Special Feature Zone**

#### **Zone Objective**

The primary objective of the Special Feature Zone is to protect and present significant natural or cultural resources, features or processes because of their special character, fragility and heritage values.

#### **Zone Description**

This area - the Mitchell River and Mitchell River wetlands - supports large populations of spawning sockeye salmon, bull trout, grizzly bears, migratory and song birds, moose and other wildlife. The total size of this zone is 1,966 hectares, or 0.77 % of the parks.

#### **Key Zone Strategies**

Strategies for this zone include:

- Increased focus on research and information gathering, in particular the grizzly bear, bull trout, bird populations and habitat and any rare vegetation present.
- Mitchell River will have special management that will allow traditional angling to continue, and will be considered as a Class One River in order to manage the wilderness angling experience and to minimize potential impacts on wildlife and fish resources.
- Wildlife viewing will be an acceptable activity in this area and will be carefully managed to ensure recreational and natural values are not impacted.
- Hunting will be allowed in the Mitchell River Special Feature Zone.

• Use will be restricted to between 9:00 a.m. -4:00 p.m. from August 1 onward to protect grizzly bears during key feeding and foraging times.

Activity/Use/Facility	Allowable in the Special Feature Zone
Activity	
Beach activities (swimming, sunbathing)	Y
Boating (power)	Y (special season restrictions – see 4.3 – Wildlife and Fish)
Boating (non-power)	Ý
Camping – no trace	Ν
Camping –other	Ν
Commercial Recreation (facility-based)	Ν
Commercial Recreation (non-facility based)	Y
Fishing	Y
Hiking and walking	Y (subject to seasonal closures)
Hunting	Y
Natural and cultural values appreciation(birding, photography, wildlife viewing)	Y
Recreational Gold panning and rock hounding	Ν
Scientific research (manipulative activities)	Y
Scientific research (specimen collection)	Y
Skiing (downhill or cross country tracked)	Ν
Skiing (helicopter or cat assisted)	Ν
Skiing (other)	Y
Trapping	Y
Use	
Aboriginal Rights	Y
Aircraft Access	Ν
Exotic Insect/disease control	Y
Filming (commercial)	Ν
Fire Management (prescribed fire)	Y
Fire Management (prevention)	N/Y (see fire management plan)
Fire Management (suppression)	N/Y (see fire management plan)
Fish Stocking and enhancement	Y
Forest insect/disease control	Y/N (see vegetation management zoning)
Grazing (domestic livestock)	N 5/
Guide outfitting (fishing)	Y (subject to regs)
Guide outfitting (hunting)	Y (subject to regs)
Guide outfitting (nature tours)	Y
Horse use/pack animals (not exotic)	Ν
Motorized water access	Y (with special restrictions)
Non-motorized water access	Y
Noxious weed control	Y
Off-road access (mechanical activities)	N (access to private lots through zone permitted)
Off-road access (motorized – not snowmobiles)	N (except for a corridor down the Z Road)
Off –road access (snowmobiles)	N
Pack animals (exotic)	N
Facility	
Administration buildings and compounds	N
Backcountry huts and shelters	N
Boat launches	N
Boachamonoo	. •

#### Allowable Activities and Levels of Use in the Special Feature Zone

Campgrounds with picnic areas (vehicle accessed and serviced)	Ν
Campgrounds (other)	Ν
Communication sites	Ν
Interpretation Signs	Y
Interpretation and information buildings	Ν
Roads and parking lots	Ν
Ski hills and snowplay areas	Ν
Lodges and other service accommodation	Ν
Trails (hiking, cycling, cross –country skiing)u	Ν
Utility corridors	Ν
Water control structures	Y (existing only)

Specific direction on management in this zone can be found in Section 4 – Wildlife and Fish, Cultural Heritage, Vegetation Management etc sections.

Click to view plate 13: The Mitchell River wetlands are one of the most ecologically diverse areas in this block of parks. The approximate park boundary is indicated by the dotted line.

#### **3.5 Natural Environment Zone**

#### **Zone Objective**

The primary objective of this zone is to protect scenic values and to provide for backcountry recreation opportunities in a largely undisturbed natural environment.

#### **Zone Description**

This zone covers all 3,137 hectares of Cariboo River Park, 1,956 hectares on Bowron Lake, 732 hectares following a corridor through the Wolverine addition to Bowron Lake Park, a 4,829 hectare snowmobile area centered on Robert's Peak, 322 hectares on Ghost Lake and 2,353 hectares on Mitchell Lakes. This zone covers 13,297 hectares, or 5.2% of the parks.

#### **Key Zone Strategies**

Strategies for this zone include:

- Facility development is minimal on the Wolverine/Goat trail, at a level sufficient to satisfy basic user needs, safety concerns and wilderness recreation experiences while protecting the overall ecological integrity of the park.
- No summer vehicle access to the Wolverine/Goat trail.
- The potential for a snowmobile corridor through the Wolverine/Goat trail will be subject to additional wildlife research and safety/feasibility studies. These information needs are outlined in section 4.5 Access and Adjacency.
- Bowron Lake will continue to be accessible for motorized boat use. Impacts will be monitored and horsepower restrictions may be recommended if impacts are demonstrated. A Code of Ethics for boaters will be developed to address user conflicts. Details on this can be found in section 4.4 Bowron Lake.
- Snowmobile use is permitted on Ghost Lake and Roberts Peak.
- Cariboo River Park will continue to be available for motorized and non-motorized boat traffic. Research will be undertaken to better understand waterfowl patterns and usage. Facilities to launch boats next to the bridge may be made available over the medium term, if increased usage is demonstrated and site impacts are occurring.

• There is interest in a future road corridor that would link the Robson Valley with the Cariboo. One location for this road linkage that has been discussed has been the Goat River/Wolverine drainages, following approximately the corridor outlined in this zone. The road itself is discussed in section 4.5 - Access and Adjacency.

Click to view plate 14: Looking west down Ghost Lake in the Natural Environment Zone. The campsite is located at the far end near the outflow of the Matthew River.

#### Allowable Activities and Levels of Use in the Natural Environment Zone

Activity/Use/Facility	Allowable in the Natural Environment Zone
Activity	
Beach activities (swimming, sunbathing)	Y
Boating (power)	Y
Boating (non-power)	Y
Camping – no trace	Y
Camping –other	Y (no overnight camping on Bowron Lake)
Commercial Recreation (facility-based)	Y (not on Bowron Lake)
Commercial Recreation (non-facility based)	Y
Fishing	Y
Hiking and walking	Y
Hunting	Y (Not Bowron Lake)
Natural and cultural values appreciation(birding, photography, wildlife viewing)	Y
Recreational Gold panning and rock hounding	Ν
Scientific research (manipulative activities)	Y
Scientific research (specimen collection)	Y
Skiing (downhill or cross country tracked)	Ν
Skiing (helicopter or cat assisted)	Ν
Skiing (other)	Y
Trapping	Y (not on Bowron Lake)
Use	
Aboriginal Rights	Y
Aircraft Access	Y (not on Wolverine Corridor)
Exotic Insect/disease control	Y
Filming (commercial)	Y
Fire Management (prescribed fire)	Y
Fire Management (prevention)	N/Y (see fire management plan)
Fire Management (suppression)	N/Y (see fire management plan)
Fish Stocking and enhancement	N
Forest insect/disease control	Y/N (see vegetation management zoning)
Grazing (domestic livestock)	N N
Guide outfitting (fishing)	Y (subject to regs, but not on Bowron Lake)
Guide outfitting (hunting)	Y (subject to regs, but not on Bowron Lake)
Guide outfitting (nature tours)	Y
Horse use/pack animals (not exotic)	Y (but not on Bowron Lake)
Motorized water access	Y
Non-motorized water access	Y
Noxious weed control	Y

Of-road access (mechanical activities)	N
Off-road access (motorized – not snowmobiles)	N
Off –road access (snowmobiles)	N/Y (permitted on Ghost Lake,
	Roberts Peak and on Wolverine
	Corridor subject to feasibility
	studies)
Pack animals (exotic)	Y
Facility	
Administration buildings and compounds	N
Backcountry huts and shelters	N
Boat launches	Y
Campgrounds with picnic areas (vehicle accessed and serviced)	N
Campgrounds (other)	N
Communication sites	N
Interpretation Signs	Y
Interpretation and information buildings	Ν
Roads and parking lots	Y (parking facilities)
Ski hills and snowplay areas	N
Lodges and other service accommodation	Ν
Trails (hiking, cycling, cross –country skiing)u	Y
Utility corridors	N
Water control structures	N

Specific direction on management in this zone can be found in Section 4.

### **3.6 Intensive Recreation Zone**

#### **Zone Objective**

The primary objective of this zone is to provide for a variety of facility-oriented outdoor recreation opportunities.

Click to view plate 15: The newly constructed Bowron Lake campground and parking lot in 1973. This site was originally a hayfield. Today the trees are mature and most visitors would never know the site ever looked like this.

#### Zone Description

The two Intensive Recreation zones in this block of parks are located at the north end of Bowron Lake and at the west end of Ghost Lake at the old Forest Service campground and boat launch. The zone at Bowron Lake is 325 hectares, and the area at Ghost Lake is 66 hectares in size, representing 0.15 % of the three parks.

#### **Key Zone Strategies**

Strategies for this zone include:

- Continuing to provide a campground adjacent to the Bowron Lake Registration Center, developing a small day-use area adjacent to the existing canoe dock, and expanding dock facilities at the north end of Bowron Lake to make access to the lake easier and safer for the public. (see section 4.4 Bowron Lake, for a complete discussion). The acquisition of private land at the north end of the lake will be considered.
- Upgrading the old Forest Service campground and facilities at Ghost Lake in the medium to long term or as demand warrants.

- Providing interpretive facilities and signs to inform visitors of important park values, safety issues, codes of ethics and behaviors, and historical and cultural values.
- Providing visitor services, including interpretation, at Bowron Lake Registration Center.

#### Allowable Activities and Levels of Use in the Intensive Recreation Zone

Activity/Use/Facility	Allowable in the Intensive Recreation Zone
Activity	
Beach activities (swimming, sunbathing)	Y
Boating (power)	Y
Boating (non-power)	Y
Camping – no trace	Y
Camping –other	Y
Commercial Recreation (facility-based)	Ν
Commercial Recreation (non-facility based)	Y
Fishing	Y
Hiking and walking	Y
Hunting	Ν
Natural and cultural values appreciation(birding, photography, wildlife viewing)	Y
Recreational Gold panning and rock hounding	Ν
Scientific research (manipulative activities)	Y
Scientific research (specimen collection)	Y
Skiing (downhill or cross country tracked)	Ν
Skiing (helicopter or cat assisted)	Ν
Skiing (other)	Y
Trapping	Y (not on Bowron Lake)
Use	
Aboriginal Rights	Y
Aircraft Access	Y
Exotic Insect/disease control	Y
Filming (commercial)	Y
Fire Management (prescribed fire)	Y
Fire Management (prevention)	N/Y (see fire management plan)
Fire Management (suppression)	N/Y (see fire management plan)
Fish Stocking and enhancement	N
Forest insect/disease control	Y/N (see vegetation
	management zoning)
Grazing (domestic livestock)	N
Guide outfitting (fishing)	Y (subject to regs, but not on Bowron Lake)
Guide outfitting (hunting)	Y (subject to regs, but not on Bowron Lake)
Guide outfitting (nature tours)	Y
Horse use/pack animals (not exotic)	N (not on Bowron Lake)
Motorized water access	Υ
Non-motorized water access	Y
Noxious weed control	Y
Off-road access (mechanical activities)	Ν
Off-road access (motorized – not snowmobiles)	Ν
Off –road access (snowmobiles)	N/Y (permitted on Ghost Lake and at the north end of Bowron
	with a permit – see Bowron

	Lake)
Pack animals (exotic)	Y (not on Bowron)
Facility	
Administration buildings and compounds	Y
Backcountry huts and shelters	Ν
Boat launches	Y
Campgrounds with picnic areas (vehicle accessed and serviced)	Y
Campgrounds (other)	Y
Communication sites	Ν
Interpretation Signs	Y
Interpretation and information buildings	Y
Roads and parking lots	Y
Ski hills and snowplay areas	Ν
Lodges and other service accommodation	Y
Trails (hiking, cycling, cross –country skiing)	Y
Utility corridors	Ν
Water control structures	Ν

Specific direction on management in this zone can be found in Section 4.

### Click to view Zoning Map

# 4.0 Natural, Cultural Heritage and Recreation Values Management

### 4.1 Land and Resource Tenures Introduction

With the inclusion of Cariboo Mountains, Cariboo River Park and the additions to Bowron Lake Park into the protected areas system, timber harvesting, mineral exploration and hydrolectric activities in the parks have been halted. These uses are incompatible with provincial park policies and legislation, and will no longer be permitted. However, the *CCLUP*, which created Cariboo River and Cariboo Mountains Park, is quite clear in its direction that other existing licensed uses would be allowed to continue in the parks. These uses include trapping, grazing, and guiding (recreational, angling and hunting). In addition, private property would be respected inside park boundaries and traditional forms of access to that private property would be respected. This direction is similar for the additions to Bowron Lake Park that came from Prince George and Robson Valley LRMPs.

Other uses which would normally be considered incompatible with protected areas include right of ways for hydro lines, pipelines or roads, and radio transmission towers. These pre-existing uses will be permitted.

The accompanying map shows traplines, guide outfitter boundaries and mineral tenures close to the park boundaries.

### Click to view Tenures Map

### Objectives

• To manage tenures to meet the conservation roles of the parks and the obligation to established uses.

### Strategies

• Authorize, by Park Use Permit, the continuation of pre-existing tenures including trapping (with trapline cabins), heli-hiking, heli-skiing, angle guiding, guide outfitting, horse tours, wildlife viewing

and recreational guiding within the parks. Allow the use of firearms and snowmobiles, within specific areas, for trapline management by the registered trapline holder and authorize this in permits. Permits should be issued only for those uses/activities that existed prior to October 1994 in Cariboo Mountains and Cariboo River Park and July 2000 for the additions to Bowron Lake Park.

- Require Fisheries and Oceans Canada to acquire a permit for the dam at Mitchell Lake.
- Work with Ministry of Forests to monitor logged blocks inside parks and to ensure they are free growing and roads are appropriately deactivated.<sup>4</sup>
- Prohibit trapping inside the pre-2000 boundaries of Bowron Lake Park and close the yearly trapping opportunity in the Betty Wendle addition to Bowron Lake Park. A trapping tenure has never existed in the Upper Cariboo River addition to Bowron Lake Park, and therefore will not be offered in the future.
- Require permit holders to clean camps and remove structures that are dilapidated or no longer required.
- Permit holders may improve or upgrade structures as long as they follow the same footprint as the existing structure and have the same use intent (e.g. old one story cabin can be replaced with a new one story cabin of the same dimensions, but not with an airplane hanger or a two story cabin). Bonds may be required for improved structures to ensure they are not abandoned. Local materials from the site should not be used.
- Permit holders must rehabilitate sites when the permit is terminated.

Click to view plate 16: Looking east down Mitchell Lake. The Mitchell River is in the foreground. The dam, which is discussed in the text of the plan, is visible in the foreground.

### 4.2 Vegetation Management and Forest Health

### Introduction

Fire, disease, decay, windthrow, snow and debris avalanching, erosion on alluvial flood planes and insect infestations are the fundamental disturbances that can be found in the forested ecosystems of the Cariboo-Chilcotin. These influences have created a mosaic of forested and non-forested plant communities that change across the landscape according to regional-scale climatic variation, and more local-scale site factors. On the regional scale, vegetation is influenced by two climatic gradients – the west to east transition as moisture increases and the low to high transition as temperature decreases. On the local scale surficial material and local topographic also influence vegetation. Therefore the plant communities that exist today are the result of the environmental influences of climate and site, as well as the history of disturbance in that area.

As natural processes, these disturbances are generally allowed to continue within parks and protected areas. However, past interventions in natural disturbance patterns, particularly through the suppression of wildfires, have created 'unnatural' conditions that make ecosystem management more of a challenge.

<sup>&</sup>lt;sup>4</sup> Deactivation as required in the Silvicultural Prescription that was approved at the time of harvesting.

Suppression of fire, for example, results in large, homogenous areas of mature forest with higher fuel loading, which leads to an increased risk of forest pest outbreaks or catastrophic wildfire.

The parks contain variants of the Alpine Tundra (AT), Engelmann Spruce-Subalpine Fir (ESSF, 2 subzone variants), Interior Cedar Hemlock (ICH, 3 subzone variants), and Suboreal Spruce (SBS, 1 subzone variant) biogeoclimatic zones. Except for a few recently burned areas, the forest landscape within the parks is predominately mature and old-growth forest, with some non-forested wetlands and alpine communities.

In the Sub-boreal Spruce (SBS) zone, subalpine fir (*Abies lasiocarpa*) and hybrid spruce (*Picea engelmanni* x *P. glauca*) are the predominant trees in mature ecosystems. Douglas fir (*Pseudotsuga menziesi*) occurs commonly as large individuals in fire regenerated stands on morainal materials and often occurs with pockets of trembling aspen (*Populus tremuloides*), and paper birch (*Betula papyrifera*). Extensive areas of fire-regenerated forests dominated by young lodgepole pine (*Pinus contorta*) occur on dry outwash materials adjacent to the Swan-Spectacle lakes area.

The transition to Interior Cedar Hemlock zones (ICH) is marked by the presence of western red-cedar (Thuja plicata) and increasing amounts of western hemlock (Tsuga heterophylla). In many stands, hybrid spruce and subalpine fir are still the dominant trees within the ICH portions of the parks.

The Engelmann Spruce-Subalpine Fir (ESSF) zones occur above the Sub-boreal Spruce and Interior Cedar Hemlock. This zone is dominated by subalpine fir and Engelmann spruce is replaced by hybrid spruce. At higher elevations this zone is distinguished by having a discontinuous forest canopy in the form of islands of low, stunted trees interspersed between wet meadows and shrub communities.

Above the ESSF is the Alpine Tundra (AT) zone where trees can no longer grow due to colder temperatures, prolonged snowfall, short growing seasons and severe winter winds. The Alpine Tundra zone occurs above tree line at the highest elevation of the parks and is dominated by a mosaic of herb, sedge and shrub dominated communities. Other non-forested ecosystems occur on avalanche chutes, and in wetland complexes in areas of poor drainage.

The primary conservation management objective for the parks is the maintenance of natural ecosystem diversity and ecosystem processes. The primary ecosystem processes that have the potential to affect ecosystem diversity at a landscape level are natural disturbance factors, and the nature of ecological succession that follows disturbance. Forest fire and insects are the two natural disturbances that have the greatest potential to cause the most far-reaching effects on the parks landscape. Fire and forest health management must be integrated with control actions and management on the broader ecosystems of which the park is a component.

#### Management Using Ecological Integrity Principles: The Role of Fire

Allowing natural disturbances to run their course is an integral part of maintaining ecological integrity. Disturbance created by natural fires is a critical process in the type of forested ecosystems found in these parks. Fires will help to create a more natural mosaic of age classes, increasing forest health (e.g. by weeding out diseased individuals and making forests more resistant to insect outbreaks), longevity (through regeneration and seed distribution) and biodiversity (by creating a variety of habitat types suitable to a wide range of flora and fauna).

Recognizing the importance of fire in maintaining ecological integrity, the parks have been zoned for the type of fire management activities that will occur. Throughout most of the park, the strategy is to allow fires to take their natural course having consideration for other values in managing for ecological integrity. In the frontcountry areas of the parks, fires will be fought to protect visitor safety, structures, and other important features.

### **Rare and Endangered Plants and Vegetation**

According to the British Columbia Conservation Data Centre, there are several species of plants that are listed for the Bowron Lake Park area or suspected to exist in the park. This list is not exhaustive, as no thorough vegetative inventory has been conducted for this area. The species mentioned should be considered only a starting point. They are as follows:

Plant Species	Status
Meadow Arnica (Arnica chamissonis ssp incana)	Blue
Hall's Willowherb (Epilobium halleanum)	Blue
Small-flowered willowherb (Epilobium leptocarpum)	Blue
Slender mannagrass (Glyceria pulchella)	Blue
Regel's Rush (Juncus regelii)	Blue
Slender sedge (Carex tenera)	Blue
Dry-land Sedge (Carex xerantica)	Blue
Kruckeberg's holly fern (Polystichum kruckebergii)	Blue
Booth's willow (Salix boothii)	Blue
Blunt-sepaled starwort (Stellaria obtusa)	Blue
White wintergreen (Pyrola elliptica)	Blue

### Fire

Disturbance and the forest successions that result are integral and natural components that help to determine landscape level ecosystem diversity in the parks. Disturbance initiates forest renewal and ensures that a mosaic of forest age classes occur across the landscape – a process called *succession*. Each of these successional stages has unique ecosystem qualities and support species dependent on the particular habitat values of that age class.

The policy of extinguishing wildfires, which society has followed since the turn of the last century, has had the effect of removing the most effective agent of forest disturbance - fire. If this policy were completely successful and carried on for a long enough time it would result in a landscape composed almost entirely of mature and climax forests. Such a landscape would eventually exclude many early successional plant species, and the animal species that depend on them. Fire also has an important role to play in eliminating excessive fuel loads in older stands. Fuel can include dead branches, leaves, needles and other understory vegetation. With unnaturally high levels of fuel, what might be a small fire can turn into a catastrophic fire, burning so hot that it destroys soil and seed sources.

A 1993 analysis of the fire history in Bowron Lake Park showed that the majority of fire activity during the last century has been in the SBSwk1, where two major fires (1898 and 1893) burned a significant

portion of the lower and middle elevations of the north-western corner of Bowron Lake Park. In the ICHmk3, which is located around Spectacle, Babcock and Unna Lake, three large fires were dated from 1905, 1850 and 1749. By contrast, in the ICHwk4 near Issac Lake, fire evidence at the stand level was non-existent on cool northeast aspects. On the warmer and drier southwest aspects on the east side of Issac Lake the observed pattern was for fires to be much smaller. It is evident by the analysis that the size and frequency of fires varies significantly between the different biogeoclimatic units. The important implication for vegetation management is that fires can be expected to be larger and much more difficult to control in lower and warmer sections of the parks and it would not be advisable to permit fires to burn in these variants. By contrast, fires in the ICHwk4 and ESSF are much smaller. Given considerations for other factors, it may be possible to permit natural burning cycles to occur in portions of these areas.

#### **Insects Posing Risks to Forest Health**

Insects, along with fire and windthrow, are the major causes of natural disturbance in forested landscapes. As with all natural processes, it is BC Parks' policy that insect infestations will be allowed to follow their natural course. However, as with any natural process, unacceptable impacts may occur on other park values or on values adjacent to the parks. Therefore, forest health concerns should focus on events which:

- 1) Cause unacceptable changes in the forest landscape
- 2) Reduce the desired level of biodiversity
- 3) Unreasonably threaten adjacent forests managed for other resources uses, or
- 4) Otherwise adversely detract from the park environment

This basically limits forest health concerns to those events which result in periodic outbreaks that cause large scale and widespread impacts to vegetation (e.g. disease is not a major management concern because it tends to affect individual trees and progresses very slowly). In the interior wetbelt these types of widespread events are limited to outbreaks in some species of trees by bark beetles and to some extent, defoliating caterpillars. Weather and climate can play a major role in beetle survival and thus impact potential for, and timing of epidemic situations.

The principal resident bark beetles capable of reaching epidemic proportions are the spruce beetle, (*Dendroctonus rufipennis*), the Douglas-fir bark beetle (*Dendroctonus pseudotsugae*), the mountain pine beetle (*Dendroctonus ponderosae*) and the western balsam bark beetle, (*Dryocoetes confusus.*)

Although widespread outbreaks by defoliators in the park area are unlikely, the spruce budworm, (*Choristoneura occidentalis*), the two year budworm, (*Choristoneura biennis*) and the western hemlock looper, (*Lambdina fiscellaria*) are resident species with the potential to reach epidemic numbers.

Bark beetle outbreaks result from a combination of biological and environmental conditions that favour beetle reproduction and survival. The primary factors in bark beetle outbreaks are host suitability and availability. Park management efforts that allow fire protection, yet focus on maintaining natural processes in a continuous, unaltered form, result in forest structures tending toward older trees with larger diameters. In some species of trees, these are precisely the hosts most suitable for bark beetle outbreaks. In addition, large blocks of older stands, combined with certain weather and climate conditions, tend to create circumstances conducive to large patches of blown down trees, which in turn attract some types of beetles.

The spruce beetle generally requires some significant area of blown down trees to become epidemic. Areas of blown down trees are rapidly colonized by these beetles that then produce large numbers of new beetles, which in turn places greater pressure on adjacent standing trees.

The area around and including Bowron Lake Park has a long history of spruce beetle infestations. The first quantitative records of infestation in the Prince George Forest Region occurred in the years 1962 - 1965.

Mountain pine beetle, like spruce beetle, prefers older and larger trees. Bowron Lake Park currently has large, homogenous areas of fire-regenerated lodgepole pine, which is now becoming susceptible to this bark beetle. As these stands continue to mature over the next twenty to fifty years, the probability of their supporting a bark beetle outbreak will increase.

The balsam bark beetle attacks true fir species in the higher elevation areas and will likely not create adverse impacts. Similarly, because these parks lack large contiguous stands of older aged Douglas-fir, Douglas-fir beetle outbreaks would likely pose minimal risks. Cariboo River Park has some large diameter Douglas-fir, however, that will have to be monitored.

#### Management Tools Available in Parks

The *Park Act* does not allow commercial, salvage or sanitation logging in parks or protected areas. Tools which are available include:

- 1. Falling and burning of identified attacked trees (e.g. usually identified through aerial surveys).
- 2. Trap trees can be used to attract beetles to certain trees. The tree is felled and left to attract beetles. Following the beetle flight the tree is burned. This is most commonly used for spruce trees.
- 3. Pheromone baiting is used for bark beetles (pine, fir and spruce). Pheromone baited trees are generally dealt with in one of three ways:

a) Baited trees that become infested can be felled and burned.

b) For pine trees, pheromones are used to bait insects into the tree. After the tree is infested, an arsenic compound called MSMA is injected into the tree to kill the beetles.

c) For spruce trees, the MSMA is injected into healthy trees and then baited with pheromones. Beetles are drawn to the tree by the pheromones and are killed by the arsenic. These are called "lethal trap trees." These trees can be left to stand or felled and burned

- 4. Antiaggregation pheromones may be used to repel insects by sending the message that "this tree is already full." These are experimental at this time.
- 5. Spraying biocontrols for defoliators such as Hemlock Looper.

### Objectives

- To maintain natural ecosystem diversity and a range of succession stages
- To allow natural disturbance agents and natural processes to continue
- To allow pest infestations in a manner that maintains the integrity of the natural conditions within this system of parks while integrating with management and control actions on the broader ecosystem.
- To maintain natural plant and forest communities for their inherent value and their contribution to wildlife habitats, biodiversity and aesthetics.

- To protect rare, endangered and sensitive native plant communities.
- To manage for low impact scientific studies to improve the knowledge of park values and management activities.

### **Strategies (Fire)**

- Allow wildfires to burn where impacts to other values are considered.
- Define areas within the parks where fire will be controlled or allowed to burn. An interim "Management Zone" has been identified. See attached map.
- Continue research into the role and application of fire in the parks and refine the fire management plan over time.
- Protect important recreation facilities around the canoe circuit and consider public and commercial recreation use areas.
- Manage wildfire so public safety is a priority.
- Stop initial attack on fires in "No Management" zones. See attached map.
- Apply prescribed burning as a tool to reintroduce natural fire events where fire suppression has effectively removed it or to reduce fuel accumulations that have become a fire hazard.
- Use mechanical treatment of excessive fuels to reduce fuel loading.

### **Strategies (Pest Management)**

- Two zones have been identified for the parks a "Management Zone" and a "No Management Zone." See attached map.
- In Management Zones, aerial and ground monitoring will be used in conjunction with beetle probes to determine infestations. Appropriate management tools from the list above may be used to control the infestation if it is determined to place park values or values of areas adjacent to the park at risk.
- Control actions will only be undertaken if forest and/or vegetation loss is expected to be severe and detrimental to the ecosystem and/or the value of affected features within or adjacent to the protected area is high.
- In No Management Zones, allow natural processes to occur unimpeded. Large events, such as wildfire damaged trees and large areas of blow down, should be monitored for beetle activity. The management options listed above will be considered if these infestations are considered a threat to other park resources or forests adjacent to the park.
- Update Forest Cover mapping and complete hazard mapping for major insect species.
- Educate park users about natural processes such as fire insects and blow down.

### Click to view Forest Health and Fire Management Zones

Click to view plate 17. Looking west over Summit and Stranger lakes at Quesnel Lake in the background. This area has seen high levels of activity by the Hemlock Looper, a defoliating caterpillar which targets cedar and hemlock trees.

## 4.3 Wildlife and Fish

### Introduction

The interior wetbelt ecosystems of Bowron Lake, Cariboo Mountains and Cariboo River parks support a tremendous variety of animal species and a diversity of habitats. Combined with Wells Gray Park to the southeast, these parks form the fifth largest system of contiguous protected areas in the province, protecting a huge mountainous predator–prey ecosystem. This large unroaded and unfragmented landscape is considered especially vital for large carnivores such as grizzly bears. These carnivores require large areas of undisturbed habitat because of their relatively large home ranges, low densities, low reproduction rates and sensitivity to disturbance.

These parks contain a mosaic of low elevation valley bottoms with winding riparian corridors, lakes, rivers, avalanche chutes, alpine and subalpine areas, old growth spruce, hemlock, cedar, fir and pine forests as well as luxuriant wetlands rich in grasses, shrubs, forbs, willows and other herbaceous vegetation. This diversity supports populations of grizzly and black bears, moose, mountain goats, mule deer, cougars, lynx, hares, picas, beavers, porcupines, marmots, wolverine, wolves and mountain caribou as well as many smaller furbearing animals, birds, bats, amphibians and reptile species. The wetlands and marshes distributed throughout the parks support populations of resident and migratory waterfowl and songbirds. The parks contain a superb range of habitats for fish, and populations of bull trout, coho, chinook, and sockeye salmon, kokanee, rainbow trout, char and other species of fish are widely distributed throughout the watersheds.

### Wildlife

### Grizzly bears

A relatively large population of grizzly bears is distributed throughout these parks. This population is unique in the province because, unlike many other areas of the interior, these bears have access to large runs of sockeye salmon in natural undisturbed areas. The grizzly bear population tends to congregate on the Upper Bowron River and on the Mitchell River in late August and September, when the runs of sockeye salmon return to spawn.

In the spring, after emerging from hibernation, the grizzlies tend to move on to the many south facing avalanche tracks to consume the newly greened-up grasses. They will also consume carrion from winter killed animals they find and will prey on moose and caribou calves. They move to low gradient riparian areas and moist seepage sites, eating cow parsnip, horsetails, skunk cabbage and grasses. As the season progresses, they can be found in the alpine areas, eating roots, picas and marmots, raiding squirrel middens and ant nests and eating alpine vegetation. As the fall approaches, they move to open areas such as old clearcuts or burn areas to eat the blueberries and huckleberries as they ripen. In September they congregate on the rivers to eat salmon in preparation for hibernation. Denning areas are believed to be in the mid-elevation, north facing slopes, but more research is required on this topic.

Little inventory or research work has occurred on grizzly bears in the parks, although some habitat work is currently taking place in the Mitchell Lake Landscape Unit.

#### **Black bears**

These parks contain large populations of black bears, which are considered common throughout the area. Habitat requirements and lifestyles are similar to those of the grizzly bear described above, although grizzly bears will tend to displace black bears when in direct competition for food.

Again, little research has taken place on black bears, with the exception of bear hazard mapping for Bowron Lake Park and the Lower Mitchell River. Bear/human conflicts have traditionally been a problem in Bowron Lake Park, with many bears destroyed over the years. However, the introduction of new bear caches and a vigorous bear aware education program, combined with strict enforcement have virtually eliminated these conflicts and it has been a number of years since a bear has been destroyed.

#### Wolves

It is believed there are at least three packs of wolves that live in and around these parks. One consists of 6 - 8 animals that travel a circuit from the east arm of Quesnel Lake up the Niagara Creek, across to Mitchell Lake and then down the north arm of Quesnel Lake. Another pack focuses its effort on the Cariboo River and the west side of Bowron Lake Park and the third is believed to live on the east side of Bowron Lake Park on Isaac Lake and its tributaries. Wolves feed primarily on moose, but will also opportunistically target caribou. Some telemetry work was completed on two of these wolf packs in the mid 1990s.

#### Mountain caribou

The red-listed mountain caribou is quite well studied throughout these three parks. There are a number of unique herds or sub-populations of caribou that overlap the area. The range of the Wells Gray North sub-population includes Cariboo Mountains Park and the mountains to the west and south adjacent to Quesnel Lake. There are less than 200 animals in this herd, and those numbers appear to be declining. The Wells Gray North herd is separated from the North Cariboo Mountain sub-population that occupies Bowron Lake Park by the icefields and rugged mountains south of Lanezi Lake and Mount Ishpa, which forms a natural barrier to movement. About 30 caribou usually occupy Bowron Lake Park, but the entire herd numbers about 400. The Barkerville herd, which numbers about 40 animals, ranges to the west of Bowron Lake Park. Cariboo River Park is considered the boundary between the Wells Gray North herd and the Barkerville herd.<sup>6</sup>

Mountain caribou summer in high elevation ESSF forests near the treeline. In early winter caribou will move down into lower elevation old-growth Interior Cedar Hemlock forests to avoid the deep snow that has not yet formed a crust. If the lower elevation forests are not Cedar Hemlock (such as the west side of Bowron Lake Park, which is primarily Sub-boreal Spruce), the majority of animals will stay in higher elevation areas. In January, when a crust has formed on the snow, the caribou that moved to lower elevations will return to the high elevation ESSF forests, where they forage for arboreal lichens which grow in the old-growth sub-alpine forests.

The behavior, habitat and populations of the mountain caribou in this area are relatively well understood. Population monitoring has been underway for a number of years which involves radio-telemetry and winter population surveys.

<sup>&</sup>lt;sup>6</sup> These numbers reflect current inventory figures, and should not be interpreted as targets.

#### Wolverine

Little is known about the habitat use or population status of these blue-listed animals. They are opportunistic feeders, often eating carrion left by wolves or bears as well as eggs, insect larvae, berries and small animals. They appear to den in high elevation basins in rocky outcroppings, having offspring in the late winter or early spring. They travel alone except when breeding.

Wolverine have been observed in the parks, generally in the winter travelling over open snow, but no formal program of research or inventory has occurred.

#### Moose

Moose are commonly found throughout all of these parks. In the summer, moose will move to mid-elevation ESSF forests to calve. The bulls tend to stay in these higher elevation areas while the cows will move back to the lower elevation wetlands and riparian areas. As winter arrives and snow depths increase, moose will move to lower elevation wetlands and riparian areas to feed on willow and other deciduous plant species. A large population of moose winter in Cariboo River Park. The river valley provides the highest ranked moose habitat in the whole Cariboo-Chilcotin region.

Cariboo River had a moose telemetry study completed in the mid 1980s and the population is occasionally surveyed in the winter to determine population size and trend.

Click to view plate 18: Cow moose feeding in the Bowron wetlands.

#### **Mountain Goats**

The mountain goat population in these parks appears to be relatively stable. These hardy animals will winter on very steep rocky slopes called "escape terrain." Birthing areas are generally in the roughest terrain of the mountain goat range, and kids are born in May or early June. In the spring, goats can be found in lower elevation areas browsing on newly greened-up grasses and forbs and will progressively move higher as the summer progresses, but they never range far from escape terrain.

Winter surveys of goat populations in these parks have only been undertaken over the last several years.

#### **Birds and Waterfowl**

Over 130 species of birds have been reported in Bowron Lake Park alone, including great horned owls, kingfishers, eight species of woodpeckers, mockingbirds, several waxwing species, loons, pelicans, herons, 18 species of ducks and geese, hawks and ospreys, cranes, plovers and sandpipers, finches, warblers and vireos.

Little inventory is currently available regarding other waterfowl.

#### Species at Risk

In addition to the above noted large species, Bowron Lake, Cariboo Mountains and Cariboo River also provide habitats for a significant number of other red and blue listed species.

Some of the specific species at risk that may inhabit these parks include:

Species	Class	Occurrence
Mountain Caribou	Red	Known
Grizzly Bear	Blue	Known

Wolverine	Blue	Known
Northern Long-eared	Blue	Suspected
Bat		
Sandhill Crane	Blue	Suspected
Short-eared Owl	Blue	Possible
American Bittern	Blue	Known
Great Blue Heron	Blue	Known
Fisher	Blue	Possible
Bull Trout	Blue	Known

- "Known" species are those which have been observed in these parks.
- "Suspected" species are those likely to occur in the parks based on known distributions of the species.
- "Possible" species are those that could potentially occur in these parks but are less likely.

### **Objectives (Wildlife)**

- To manage for the habitat needs of all species by providing a range of natural habitats and functional integrity between these habitats, both inside and adjacent to the parks.
- To maintain and/or recover to optimal levels<sup>7</sup> species and habitats at risk.<sup>8</sup>
- To maintain viable predator-prey relationships and natural behavior patterns.
- To maintain distribution and abundance of wildlife species.
- To protect wildlife habitat features<sup>9</sup>
- To maintain ungulate winter and spring ranges in a condition that will support populations during critical winter conditions.
- To minimize displacement of wildlife from preferred habitats.
- To prevent the introduction of exotic plant and animal species.
- To provide hunting opportunities in Cariboo River Park, Cariboo Mountains Park and in the additions to Bowron Lake Park (Wolverine, Betty Wendle, and Upper Cariboo River) for game species that support sustainable populations.
- To maintain Bowron Lake Park as a wildlife refugia where hunting and trapping is not permitted (trapping permitted in the Wolverine addition and hunting is permitted in Wolverine, Upper Cariboo River and Betty Wendle additions).
- To minimize the risk of encounters between bears and humans.
- To minimize the impacts and stress of recreational activities on wildlife populations and habitats.

### **Strategies (Wildlife)**

#### Wildlife – General

• Develop a long-term management plan for wildlife.

<sup>&</sup>lt;sup>7</sup> "Optimal" is a combination of historic levels and the area's carrying capacity - this concept requires more research.

<sup>&</sup>lt;sup>8</sup> "At Risk" refers to species or habitats that are rare, endangered, sensitive or vulnerable (red and blue listed).

<sup>&</sup>lt;sup>9</sup> "Wildlife Habitat Features" are specific features of wildlife habitat that support specific wildlife or groups of wildlife such as mineral licks, nest trees, denning sites or nest sites etc.

- Ensure long-term monitoring of wildlife populations inside the parks and coordinate this monitoring with areas outside and adjacent to the parks.
- Develop specific habitat prescriptions for species or habitats at risk.
- Develop a better understanding of the complex predator-prey system within and surrounding the park ecosystems.
- Manage human behavior in order to minimize impacts to wildlife. Education, voluntary practices, interpretation and guidelines are all possible tools.

#### **Biodiversity**

- Where compatible with critical habitat needs (i.e. mountain caribou) and other park objectives, maintain areas of old forest in the parks, consistent with the Cariboo Chilcotin Land Use Plan. Consult with Ministry of Forests to achieve, where possible, stand level Old Growth Management Areas (OGMAs) and *CCLUP* old growth targets.<sup>10</sup>
- Standing dead trees over 10 cm in diameter except as necessary for development or safety should not be cut in order to provide perch trees and habitat for cavity nesting species.

#### Bears

- Map bear habitat and connectivity corridors within and adjacent to the parks.
- Do not permit the construction of trails, campsites or facilities in high value black bear and grizzly bear habitats.
- Strictly enforce all bear management guidelines (e.g. use of bear caches, food storage and handling etc)
- Educate park users about bear hazards and safe behavior in bear country.
- Continue to restrict public access to the Upper Bowron River.
- Consider seasonally restricting the use of the Mitchell River spawning grounds to minimize bear human conflicts.

#### Wolves

- Identify and map wolf ranges and movement patterns.
- Increase knowledge relating to wolf foraging strategies as they relate to predator-prey ecosystems.
- See Predator Control.

#### Wolverine

- Inventory distribution and abundance; and map connectivity corridors.
- Report all sightings and known use areas.

<sup>&</sup>lt;sup>10</sup> The Cariboo-Chilcotin Land-Use Plan makes the assumption that, on a landscape unit basis, many requirements for old growth can be met by assuming all the area inside of parks is old. However, this assumption may contradict with the desire to recreate a more natural mosaic of age classes in the parks through fire management (e.g. prescribed burns and less fire suppression). These homogenous old forests are also more susceptible to catastrophic fire and forest pest outbreaks.

- Maintain 2 km buffer of non-use from recreational uses from known or suspected denning sites from January to May.
- Minimize human activities in known use areas.
- Develop facilities and manage use to minimize impacts to potential prey species, food, cover and denning sites.

#### Moose

- Manage use so there are buffer zones between humans and wintering moose and create or maintain sight barriers, noise barriers and hiding cover between areas of human use and winter ranges.
- Locate transportation routes and snowmobile corridors outside of critical winter ranges.
- Where ungulates travel on plowed roads, ensure frequent escape breaks are created in the bermed snow to allow animals to exit the road to avoid vehicle traffic.
- Identify and map winter ranges and identify critical periods.

#### Mountain Caribou

- Maintain stands of old growth forest important to caribou winter needs.
- Seasonally close highly sensitive habitats to snowmobiles and helicopters.
- Regulate snowmobile and helicopter use within habitats of moderate sensitivity.
- Schedule fixed wing and helicopter flights to avoid calving and rutting times, as well as late winter.
- Limit aircraft altitudes to a minimum of 500 m over designated caribou habitats and develop operating procedure/flightlines to avoid disturbance of caribou.

#### **Mountain Goats**

- Identify and map seasonal mountain goat habitats.
- Avoid disturbance of kidding areas between May 1 to July 15 by directing activity away from these areas.
- Avoid disturbance of designated winter ranges between December 1 to April 30 by directing activity away from these areas.
- Establish no-fly zones located 2000 meters horizontal and vertical from designated goat habitats.
- For existing helicopter operations, maintain no-fly zones that are a minimum of 500 meters horizontal and vertical from designated goat habitats.

#### **Predator Control**

- Predators may be controlled in order to re-establish short term ecosystem balance, but only for red listed or endangered species.
- Consider various methods of predator control, such as sterilization, transplants and increased trapping. Directly killing predators should be considered a last resort.

### Fish

Bowron Lake, Cariboo Mountains, and Cariboo River encompass a number of very large watersheds. Lakes on the north, south and east sides of Bowron Lake Park drain south into the Cariboo River, pass through Cariboo River Park, then continue on to join the Quesnel River and eventually flow into the Fraser River. Lakes on the west side of Bowron, as well as the majority of the interior of the park, drain north into the Bowron River, which eventually drains into the Fraser River near Prince George. Two of the three watersheds in Cariboo Mountains Park – the Mitchell and the Niagara – flow southwest into Quesnel Lake, which is drained by the Quesnel River into the Fraser. The third main watershed in Cariboo Mountains – the Matthew River – has its headwaters deep in the park above Ghost Lake. The Matthew River leaves the park at the outflow of Ghost Lake and continues on to join the Cariboo River just above Cariboo River Park. Fish are widely distributed throughout the parks in the various rivers, creeks and lake. Some of the major areas include:

### **Betty Wendle Creek**

An initial survey of the Betty Wendle in the late 1980s showed the presence of rainbow trout, bull trout and a large number of spawning kokanee. This large creek has very high fisheries values including excellent spawning gravel, rearing and holding habitat and is considered an important nursery stream to Isaac Lake.

#### Wolverine River

The Wolverine River drains into the northeast corner of Isaac Lake. It is 10 km long and contains three distinct reaches, with the upper and lower reaches having excellent gravel beds for spawning as well as a range of rearing and holding areas. Rainbow trout were present.

### **Upper Cariboo River**

The new addition to Bowron Lake Park contains a tributary of the Cariboo River as well as a small portion of the mainstem of the Cariboo River. A natural barrier to fish is located on the lower portion of the tributary. The fisheries values on the Cariboo River itself are largely unknown, but may be negatively affected due to the glacial nature and low visibility of the river.

### **Cariboo River**

This large river has 21 tributaries draining into it within the park alone. Approximately a quarter of these tributaries, including the Little River, Kimball Creek, Cunningham Creek and Harvey Creek, contain spawning habitat. The mainstem of the river contains chinook salmon and bull trout.

### **Mitchell River**

The Mitchell River is the second largest inlet stream to Quesnel Lake. It is fed by Mitchell Lake, a 1,900 hectare lake in a very steep sided basin. The river travels 19 kilometers from the outlet of the lake to the point where it joins Quesnel Lake. The last 14 kilometers of the river meanders through a series of oxbows and wetlands. The Penfold and Cameron creeks are its two main tributaries.

The lower 14 kilometers of the Mitchell River and its tributaries provide critical spawning, rearing and foraging habitat for large-sized rainbow and bull trout from Quesnel Lake. In terms of juvenile rainbow trout production, the lower Mitchell produces approximately 10,000 migrants to Quesnel Lake annually. It also supports a variety of other important freshwater and anadromous salmon species including

kokanee, sockeye, chinook and coho. Sockeye are the major anadromous species, with a reported run of up to 250,000 in high cyclic years. This river contains exceptional fisheries values.

To increase winter water flows and enhance river conditions for incubating sockeye eggs, Fisheries and Oceans Canada constructed a flow-control structure at the river outlet on Mitchell Lake in 1988. Little is known about the positive or negative effects of this structure on the ecology of the river.

#### Niagara Creek/Christian Lake (a.k.a Windy Lake)

Niagara Creek contains three main reaches; each separated by falls that form a barrier to fish. These three main reaches contain wide, meandering, braided channels which have a wide variety of fish habitats such as small oxbow lakes, beaver ponds, relic channels and bogs. The main channel is quite turbid due to its glacial nature. Rainbow trout are present in many of the off-channel habitats and probably originated from the small creek that connects Christian Lake to Niagara Creek.

Christian Lake has large numbers of small rainbow trout and, as noted, may be a source for the fish in the Niagara Creek. It is not known if this is an introduced or natural population of fish. At one point a creek connected Christian Lake to Mitchell Lake, and it is possible the fish may have come from Mitchell Lake.

#### **Upper Bowron River**

The upper portion of the Bowron River above the river cabins at site #54 has been closed to all public access and provides an area of protection to all fish species. No human fishing pressure is present. Good fish habitat starts approximately 5 km up the river above the lake where the river begins to rise off the valley floor. Many creeks flow out and feed the river from McCabe, Tediko and Mcleod ridges, Huckey Creek is one that provides good spawning beds.

Sockeye and chinook salmon use the stream and lake habitat in Bowron River system. The Bowron River is utilized as spawning grounds for adults of both species and as nursery habitat for juvenille chinook salmon. Bowron Lake provides rearing habitat for juvenile sockeye salmon. These spawning salmon provide critical protein for the grizzly and black bears just before hibernation. Bird species such as bald eagle and gulls also rely on the spawners. Rainbow trout and bull trout are present and have been seen feeding on the eggs of the salmon.

#### **Ghost Lake/Matthew River**

Ghost Lake is a 365 hectare, relatively shallow lake with steep shoreline which is drained by the Matthew River. It was found to be barren of fish, but was stocked with rainbow trout in 1986 (75,000), 1987 (15,000), and 1988 (15,000). The inlet of the Upper Matthew is very turbid and glacial with low, unstable banks. The Matthew River upstream of Ghost Lake has good rearing habitat and the lower sections and its tributaries are important trout nursery areas for the lake.

#### Mitchell Lake

Rainbow trout and bull trout are present. Bull trout spawn in first reaches of many of the creeks around the lake and the Upper Mitchell River where it drains into Mitchell Lake.

#### **Bowron Lake**

This lake contains populations of bull trout, lake char, rainbow trout, suckers, mountain whitefish, kokanee, sockeye, peamouth chub and northern pike minnow. It was stocked in the late 1940s and early 1950s.

#### Kibbee Lake

Kibbee is a somewhat shallow lake fed by a small inlet from Thompson Lake and has primarily a gravel and sand bottom. It has kokanee, mountain whitefish, suckers, rainbow trout, northern pike minnow and peamouth chub.

#### Indianpoint Lake

This is a relatively deep lake fed by a number of small creeks. The bottom is mostly sand, gravel and silt, and contains rainbow trout, northern pike minnow and peamouth chub.

#### Isaac Lake/Isaac River

Isaac Lake is the largest lake in Bowron Lake Park. It is very deep, with the average being almost 200 feet and almost 600 feet at the deepest point. A dozen tributaries enter this lake, with the largest being the Betty Wendle, Wolverine and Moxley. It is drained by the Isaac River, a large river that flows into McLeary Lake. Isaac Lake and River contains kokanee, mountain whitefish, lake char and bull trout.

#### **McLeary Lake**

McLeary is fed by the Isaac river, and is the shallowest lake on the Bowron Lake circuit, with an average of only five feet. Rainbow trout is the only species reported, however other fish species likely utilize the lake.

#### Lanezi Lake

Another very deep lake, Lanezi is fed by the Cariboo River and as a result is very silty. It is an unproductive lake with steep sides, a sand bottom and few organisms. Fish present included bull trout, rainbow trout, peamouth chub, mountain whitefish, suckers and lake char.

#### **Babcock** Lake

This lake is fed by a clear, fast flowing creek with a gravel bed. It has a sand, gravel and mud bottom, and contains mountain whitefish, bull trout, rainbow trout and peamouth chub.

#### Sandy Lake

A very shallow and very silty lake (mean is 9 feet), Sandy Lake is fed by the Cariboo River, which appears to account for the large silt deposits. No fish have been documented, however there may be fish present.

#### Hunter Lake

This small lake is located adjacent to the boundary of the park and is accessed from a small path on Sandy Lake or from logging roads next to the park. It is quite shallow, is fed by a marsh and drains into Sandy Lake. Rainbow trout and peamouth chub are present in the lake. This lake was historically stocked.

#### Unna/Rum Lake

Another shallow lake typical of the west side of the Park, this lake has a sand bottom. Peamouth chub, suckers, mountain whitefish and kokanee were found to be present.

#### Skoi Lake

Another very shallow lake (mean is 13 feet) believed to be spring fed with no inlet and a small connection to Spectacle Lake. Muddy and silty bottom with no fish documented.

#### Spectacle Lake/Swan Lake

Relatively shallow lake with mud and weed covered bottom. Species present include rainbow trout, northern pike minnow, peamouth chub, kokanee, mountain whitefish and suckers.

### **Objectives (Fish)**

- To increase the understanding of fish habitat and populations in and adjacent to the parks through standardized fish inventory and assessment projects.
- To provide a range of quality fishing experiences in the parks and monitor angler effort and catch on selected waters.
- To protect bull trout spawning and rearing habitat.

### Strategies (Fish)

- Prohibit the stocking of lakes and streams in the parks, with the exception of Ghost Lake<sup>15</sup>.
- Prohibit the transplant of fish within the parks. Fish transplants out of the park may be permitted to increase the viability and distribution of populations if the impact to the park donor population is minimal.
- Consider Isaac Lake as a refugia lake for large rainbow trout and lake char by continuing regulations on size and number of fish that can be caught.
- Utilize Resource Inventory Committee (RIC) standards for all inventory and monitoring within the parks.
- Improve relationships with Fisheries and Oceans Canada and share information and data on fisheries values.

<sup>&</sup>lt;sup>15</sup> Ghost Lake was considered "barren" until it was stocked in the late 1980s. While stocking is inconsistent with BC Parks Conservation Policies, it may be appropriate on Ghost Lake, considering the lack of competition with anadramous salmon populations, the lake's capability to support fish populations and the presence of the campground.

#### **Mitchell River**

Prepare a fisheries management plan for the lower Mitchell River. The plan should include commercial guides and public users. The plan should reflect the following key elements:
a) Spawning beds (7 km up the river from the mouth to the confluence of the Mitchell and Cameron

Creek) closed to motorized access September 15 – July 1. Foot access only. b) Recommendation to Canadian Coast Guard that a 200+ horsepower restriction be placed on the whole river year round.

c) Recommendation to Canadian Coast Guard that personal watercraft (e.g. jet-skis) be banned from the river year-round.

d) Consider a recommendation to Fisheries Branch that the river be designated a "Class One" River.e) Minimize the number of daily trips per boat on the river.

f) Utilize education and advertising to inform the public about grizzly bear hazards and potential impacts of fishing on bull trout habitat and populations.

g) Recommendation to Fisheries Branch that the fishing regulations close the river to all fishing from October 1- June 30 (open July 1 – September 30) to protect bull trout spawning habitat and populations.

h) Consider fly only (no tackle) restriction in order to more effectively protect bull trout populations.

- The fisheries management plan should address allocation of angler rod days, impacts and potential conflicts with grizzly bears, impacts to spawning beds and bull trout populations and methods of travel on the river.
- Monitor commercial use of rod days on the Mitchell River. If operators are not utilizing rod days to full capacity, unused days may be re-allocated to other existing or new operators on a competitive basis.
- Commercial/public use on the river will be based on a 30% commercial and 70% public allocation. This split will be reviewed in 2005 to determine the appropriate mix between public and commercial use.

#### **Bowron Lake**

• Prepare a fisheries management plan for Bowron Lake. The plan should utilize the Bowron Lake Advisory Group (see section 4.4 Bowron Lake). The plan should address topics such as new regulations to ensure healthy populations of kokanee and other species, monitoring of catch rates, angler days and fish size, information and education. Consider partnerships with the local community to more effectively monitor the fishery (i.e. the July 1<sup>st</sup> fishing derby to monitor the historical catches of kokanee on the lake).

#### **Cariboo River**

• Undertake research in Cariboo River Park to better understand waterfowl patterns and usage. In addition, research should also be considered which will monitor potential impacts of motorized boat use. Restrictions similar to the Mitchell River may be considered if adverse impacts are demonstrated.

#### **Fisheries Research**

• Undertake research on spawning locations of bull trout.

- Increase understanding of the Isaac Lake rainbow trout population. This population may be unique and similar to the late maturing Gerrard and Quesnel Lake rainbows, producing extremely large fish. Research should focus on spawning areas, potential numbers on spawning grounds, life history and genetic relationships to other rainbow trout populations.
- Increase understanding of the relationship between the Mitchell Lake/Mitchell River and Quesnel Lake rainbow trout populations using genetic testing. There is some question as to whether the Quesnel Lake rainbows had their origins in Mitchell Lake.
- Investigate, in partnership with Fisheries and Oceans Canada, the effectiveness and future of the water control structure at the outflow of Mitchell Lake. In particular, the potential effect of the structure on overall fish production in Mitchell Lake should be examined, with particular emphasis on rainbow trout spawning areas and bull trout populations and trends.
- Update fisheries inventory throughout Bowron Lake Park according to formalized RIC (Resource Inventory Committee) standards.
- Increase understanding of life history strategies of bull trout and lake char throughout the system of parks. In particular focusing on age/growth curves. Spawning locations throughout these systems are poorly understood at the current time.
- Increase understanding of public angler effort and use, focusing on Mitchell Lake, Ghost Lake, Cariboo River and the lower Mitchell River. Consider using aerial surveys, volunteer wardens and other methods.

### 4.4 Bowron Lake

Bowron Lake is located at the northwest corner of Bowron Lake Park. The lake is important as the start and end point of the Bowron Lake canoe circuit, but is also significant to local and regional recreational users, cabin owners, resorts and businesses that are located along its shoreline.

The lake itself is about eight kilometers long, with the outflow of Bowron River at the north end and the inflow coming from the headwaters of the Bowron River deep in the interior of the park. The most significant feature of Bowron Lake is the large and extremely productive wetland located at the south end of the lake. The Bowron River meanders slowly through the wetland. The area is considered very valuable moose range, and is one of the most significant areas for migratory waterfowl and birds throughout the whole region.

There are approximately 25 private properties located at the north end of Bowron Lake. Many of these properties have been developed and have cabins or houses built upon them, while others have not been developed and still have their forest cover intact. A number of these properties can only be accessed by water, with the park behind them. Two resorts are located along the shores of the lake, with most of the easily accessible land behind the beaches privately owned.

The majority of Bowron Lake is zoned as Natural Environment (see 3.0 - Zoning for details) with the northern extent around the private property and Registration Center zoned as Intensive Recreation.

### Objectives

- To minimize impact of recreational activities on wildlife and wildlife habitat.
- To minimize the impact of motorized watercraft on the natural quiet and natural environment of Bowron Lake.
- To ensure visitor expectations are consistent with zoning and acceptable activities on Bowron Lake.
- To ensure Bowron Lake remains accessible to local and regional day and multi-day visitors.
- To ensure the safety of visitors on Bowron Lake.
- To promote good communications between BC Parks, regional visitors, and local businesses and residents.

### Strategies

#### Personal Watercraft (jetskis)<sup>16</sup>

- Prohibit the launching of personal watercraft on Bowron Lake.
- Work with the Coast Guard to prohibit the operation of personal watercraft on Bowron Lake.

#### Houseboats

• Prohibit houseboats on Bowron Lake.

<sup>&</sup>lt;sup>16</sup> This is a generic term to describe watercraft such as seadoos and jetskis, and does not apply to outboard and inboard boats, kayaks or canoes.

#### **Motorized Watercraft**

- Horsepower restrictions will not be considered at the present time. Use will be monitored and restrictions may be recommended if unacceptable impacts are demonstrated.
- Educate canoe circuit paddlers that Bowron Lake is multi-use and motorboats can be expected. Possible strategies include signing the end of the wetland where the Bowron River enters Bowron Lake with a notice; and including this message in the Registration Center video.
- Develop a Code of Ethics for motorboats in cooperation with Coast Guard and inform motorboaters.

#### **Trail Development**

- Consider establishing day use trails to Sugarloaf Mountain and another to Devils Club Mountain.
- Horses will not be allowed on trails.

#### **Frontcountry Development**

- Consider developing a small day use area in the vicinity of the Registration Center/Canoe Dock on the shore of Bowron Lake, using the existing parking lot at the Registration Center.
- The existing service dock is confirmed as an operational dock and will be closed to public access. Consider constructing another dock in this area for local anglers. The existing dock may be used until such time as a new dock is constructed or other access provided.

Click to view plate 19: Looking south into the Bowron River/Lake wetlands.

#### **Snowmobile and All Terrain Vehicles (ATV) Access**

- Prohibit snowmobiles and ATVs on Bowron Lake, except for park operations.
- Property owners must obtain a Letter of Permission<sup>17</sup> from BC Parks to access their property directly via snowmobile or ATV during the winter.
- Sign Bowron Lake closed to snowmobiling without a Letter of Permission.

#### **Commerical Tourism Opportunity**

- A new opportunity will be offered for a commercial wildlife viewing/birdwatching operation. Conditions are outlined in Appendix A.
- An existing commercial flightseeing opportunity is currently operating from Bowron Lake. This opportunity will be limited to the existing operator and the permit will not be transferable or issued to a new operator if the current operator does not renew. Use will be monitored and restrictions may be placed in effect if unacceptable impacts are demonstrated.

#### Winter Use

- Confirm snowshoeing, dogsledding, skiing and ice fishing are acceptable uses on Bowron Lake.
- Modify the *Park and Recreation Area Regulations* to allow dogs on the canoe circuit from November 1 April 1.

<sup>&</sup>lt;sup>17</sup> Or another appropriate instrument under the Park Act.

### Monitoring

- Complete a survey addressing public perceptions of management issues on Bowron Lake.
- On a long-term basis, monitor the level of Bowron Lake, with the goal of working to re-establish natural lake levels and minimize loss of lakeshore property.

#### Communication

- Establish a Committee that meets annually to discuss communication, information needs and management issues around Bowron Lake.
- Construct an information kiosk at the entrance to the community at Bowron Lake. The kiosk should include a map of private property, services available at the park and access to Bowron Lake.

### **Private Property**

- Encourage and support owners of private property to meet "best practices" standards for development (e.g. sewage disposal, aesthetics) in order to minimize impacts on the values and resources of Bowron Lake.
- Consider purchasing or entering into a private/public partnership for use of the private property at the outflow of the Bowron River and the beach at the tail of the lake to improve public access, use and enjoyment of Bowron Lake.

# 4.5 Access and Adjacency

### Introduction

This large and diverse block of parks is surrounded by an equally diverse landscape with a number of government jurisdictions, land use plan objectives and access issues and opportunities. In some cases, direction on managing adjacent areas is outlined quite clearly in recent land use plans, while in other cases direction is somewhat more vague. In all cases, BC Parks only has the legal jurisdiction under the *Park Act* to manage lands, waters and resources inside the parks. With this limitation acknowledged, BC Parks endeavours to work on a "good neighbour" basis to ensure management both inside and outside the parks addresses the sensitivity of resources as well as land use plan objectives around access to resources.

There are four land use plans that provide direction on areas adjacent to the parks:

- Robson Valley Land and Resource Management Plan provides direction on management of the areas to the east of the parks;
- Prince George Land and Resource Management Plan provides direction on management of the areas to the north of the parks;
- □ *Cariboo Chilcotin Land Use Plan* provides direction on management of the areas to the west and south of the parks; and,
- □ *Wells Gray Provincial Park Master Plan* provides direction on the areas to the south.

This management plan will provide direction to BC Parks staff when responding to referrals on development (e.g. tourism, mining, forestry) adjacent to the parks. These responses should be in the context of direction from the land use plans. For example, the land use plans do not provide for a "buffer" of non-development around the parks. However, BC Parks staff will still have the ability to work with development proponents on methods that allow access to resources while mitigating, minimizing or eliminating impacts to values within the parks (e.g. water quality, visual or noise impacts, increased access to Bowron Lake canoe circuit).

#### Wolverine/Goat/Littlefield Corridor

Through this management planning process, there has been interest expressed in corridors connecting the Robson Valley to the Cariboo<sup>18</sup>. This interest dates back to the late 1800s and before, when First Nations used the Goat River as a low elevation corridor, and miners and railroad engineers were looking for new east - west connections and routes.

The Prince George LRMP provided some direction on a possible road following the Goat/Wolverine route, saying:

"A road has been proposed through this area which would connect Highway 16 (near McBride) with Highway 26 (near Wells). The road is not feasible at this time, however, and therefore, a corridor has not been delineated. In the event that it becomes feasible in

<sup>&</sup>lt;sup>18</sup> It should be acknowledged that BC Parks only has the management jurisdiction for those portions of any linkage that fall within the Wolverine addition to Bowron Lake Park (approximately 15 kilometers long).

the future, the corridor location and the impacts on the protected area will be considered and addressed at that time."

Click to view plate 20: Looking northeast across Isaac Lake up the Wolverine Creek. The approximate location of the trail would be where the dotted line is. The approximate boundaries of the Wolverine addition are shown as grey shading. No access to the Bowron canoe circuit would be permitted from the trail.

With the wording from the LRMP as direction, the management planning process discussed a number of <u>options</u> for the Wolverine/Goat/Littlefield route. These options included:

- 1) No managed access through the Wolverine (i.e. no trail or corridor);
- 2) A non-motorized trail (hiking, horses, skiing);
- 3) A multi-use, all season trail (hiking, horses, skiing, snowmobiles);
- 4) Single-lane gravel road;
- 5) Double-lane paved road; and ,
- 6) Other linkages from Cariboo to the Robson Valley outside the park.
  - a) Slim Creek;
  - b) Dome Creek;
  - c) Bowron River Road;
  - d) Southern routes through Cariboo Mountains Park.

Given the present direction in the *Park Act*, only options 1, 2, 3, and 6 are available. Any future road corridor would involve deleting a right of way from the park, which would require an amendment to the *Protected Areas of British Columbia Act*. Therefore, options 4 and 5 will not be pursued at the present time, and option 3 has been selected. This issue may be revisited when the management plan is reviewed or when a political decision directs otherwise.

### Objectives

- Minimize the impact of adjacent development on the resources and recreational experiences within the parks.
- Communicate with other agencies and licensees concerning development activities and management in areas adjacent to the parks.
- Afford appropriate four-season recreational connections between the Cariboo and the Robson Valley.
- Ensure traditional use and access to Cariboo River and Cariboo Mountains Parks continues in accordance with the *CCLUP*.
- Ensure private landowners have access to their property.
- Provide an appropriate level of visitor access to recreation opportunities with the parks.

### Strategies

#### General

• No new roads should be considered. Aside from the roads accessing the Ghost Lake and the Bowron Lake Intensive Recreation Zones, existing roads should not be improved.

### Aircraft

- Floatplane access to Ghost Lake, Mitchell Lake, Christian Lake (a.k.a. Windy Lake), Summit Lake, Stranger Lake and Bowron Lake is confirmed.
- Work with BC Floatplane Association and Thompson Region, Environmental Stewardship Division, to develop access guidelines for floatplane use on Twin Lakes. Commercial use levels outlined in Appendix A.
- Aircraft assisted recreational activities (e.g. heli-hiking) will only be permitted in specific areas at certain times of year. Guidelines and use levels can be found in Appendix A.

Click to view plate 21: Twin Lakes in the alpine of Cariboo Mountains Park and Wells Gray Park. The approximate boundary between the two parks is shown as a dotted line.

#### Bowron Lake Park - Wolverine/Goat River

- The Wolverine/Goat River Corridor will be a four-season connection from the Robson Valley to the Cariboo. The hiking trail can be signed, and limited facilities (for safety and sanitation) can be developed to support the trail corridor experience.
- This route will be the only corridor that snowmobiles may be permitted to use through the parks.
- Complete, in partnership with the BC Snowmobile Federation, local snowmobile clubs (Quesnel, McBride, Valemount, Wells) and other affected government agencies, a feasibility study on the snowmobile route through the Wolverine. The feasibility study should address safety (avalanches), site lay-out, potential direct impacts on wildlife populations (focus on caribou, but also include other components, such as denning areas for bears, moose wintering areas, etc) and habitat fragmentation. If the use is considered appropriate, the study should suggest spatial and temporal mitigation strategies for wildlife.
- Work with licensees and agencies to ensure any new access roads developed adjacent to the park (i.e. Goat drainage) are sensitive to park values and are consistent with the recreational trails in the park.
- Work with permittees, licensees and agencies to ensure recreational users entering Bowron Lake Park from the Robson Valley or from Littlefield Creek are aware there is no access to the Bowron Lake Circuit from this trail.

#### Bowron Lake Park - West Side

- Work with licensees and agencies to ensure Visual Quality Objectives are maintained from viewpoints on the Bowron Lake canoe circuit.
- Work with licensees and agencies to ensure no new access to the Bowron Lake canoe circuit is developed.
- Work with licensees and agencies to ensure noise and light impacts from industrial activity adjacent to the park do not have an adverse impact on wilderness experiences in the park. Mitigation tools may include season and timing of operations (e.g. winter logging or limiting night-time operations).

#### Bowron Lake Park –South Side – Hunter Lake

• Snowmobile access to Hunter Lake is not permitted. Use appropriate signage to communicate this closure to users.

#### Bowron Lake Park - East Side - Cariboo River Drainage

- As per direction in the *RVLRMP*, work with licensees, agencies and any Access Management Plans to ensure no new access to the Bowron Lake canoe circuit is developed.
- As per direction in the *RVLRMP*, work with licensees and agencies to reduce the audible impacts of resource develop activities on wilderness canoeing experiences.
- As per direction in the *RVLRMP*, work with licensees and agencies to maintain water quality values in the Cariboo River system above the park.

#### Cariboo Mountains Park - Z Road – Lower Mitchell River

- Allow private landowners at the north end of Quesnel Lake to continue to use traditional means of transportation to access their properties. Only these private land owners may use ATVs on the Z-road.
- BC Parks will not upgrade or maintain the Z Road. Local users can maintain the road to the quality it was in the year 2001 and will be issued a Park Use Permit for these activities.<sup>19</sup>
- The Z Road inside the Park will be opened to snowmobiles in the winter. The area will be signed, and if the wetlands are being used, or if impacts to wildlife (moose, swans etc) are demonstrated, the corridor may be closed.
- Access to Quesnel Lake via the Z Road is permitted. All users should respect private property.
- Access to the Mitchell River via the Z Road will be by foot only. No roads or trails will be constructed to the Mitchell River from the Z Road due to extremely high bear hazard.
- Access to Mitchell River will not be signed at the 3100 Road.
- Public access to the old cutblocks, logging roads and ridgelines on the north/east side of Cameron Creek will continue. The in-block logging roads will be deactivated as per licensee plans and access to the park will be non-motorized.

# Cariboo Mountains Park – West Side - Cunningham-Matthew Forest Service Road (B Road)

- Work with licensees and agencies to ensure continued access to the west side of Cariboo Mountains Park via the B Road.
- Public access to the old cutblocks, logging roads and valleys in Cariboo Mountains Park via the B-Road will continue. The in-block logging roads will be deactivated as per licensee plans and access to the park will be non-motorized.

#### **Cariboo Mountains Park – West – Penfold Creek Drainage**

- Work with licensees (West Fraser) and agencies (BCAL, MoF) to ensure development at the head of Penfold Creek does not allow motorized ATV or snowmobile access into the alpine of Cariboo Mountains Park.
- The new roads constructed in Penfold Creek represent one of the best opportunities for accessing the recreationally significant alpine ridges along the Niagara Creek drainage. Work with the licensee (West Fraser) and agencies to ensure any new public or commercial recreational activities in this area of high backcountry recreation value are sensitive to park values.

<sup>&</sup>lt;sup>19</sup> Appropriate authorization may be required from other agencies for areas of the road outside the park.

#### **Cariboo Mountains Park - North Side - Castle Creek Drainage**

- Work with licensees, agencies (BCAL, MoF) and any Access Management Plans to ensure any new public or commercial recreational activities in this area of high backcountry recreation value are sensitive to park values.
- Work with licensees and agencies to ensure snowmobilers are aware Roberts Peak is open for snowmobiling, but access into the Niagara drainage for snowmobiling is not permitted.

#### Cariboo Mountains Park – South Side – Blue Lead, Summit and Stranger Lake

- Work with licensees, agencies (BCAL, MoF) and any Access Management Plans to ensure any new public or commercial recreational activities are sensitive to park values.
- Work with licensees and agencies to ensure snowmobilers are aware the park is closed to snowmobiles
- Work with licensees and agencies to ensure road construction in the Blue Lead does not allow motorized access to the alpine in Cariboo Mountains Park.
- Trail access to Summit and Stranger Lakes may be permitted.
- Work with Thompson Region, Environmental Stewardship Division, on co-ordinating use of the Summit Lake Trail between Wells Gray and Cariboo Mountains parks.

# 4.6 Cultural Heritage

### Introduction

This block of mountain parks has a strong history of First Nations and European use and settlement. Much of this use has been intertwined with the presence of rich wildlife and fish values in the parks. The physical evidence of this use and history is distributed throughout the parks. Some evidence, like the old trapper cabins, is in plain sight while some evidence lies buried. In other cases, the history of the area exists only in the memories and stories of First Nation elders or handed down to second and third generation landowners and local historians. All of these resources will be managed in a sensitive way and in accordance with the appropriate legislation.

While the word "wilderness" is often used to describe these parks, the mountains, lakes and rivers in the area have been used for food, shelter and sustenance, economic development and recreation long before society decided to protect these areas as provincial parks. Evidence of past use can be found in the old trapper cabins, trails, axe blazes, crumbling chimneys, rotting mileposts, the occasional projectile point and the long since removed rail portages.

Many of the first visitors to the area wrote about the First Nations people they encountered. They talked about the trapping, hunting, fishing and gathering activities of these people and speculated about which "people" they were. Early accounts suggest they were the "Takulli" or Carrier people, but others mentioned Shuswap or even Iroquois. Many of these accounts refer to a village situated at Bear (Bowron) Lake complete with between 9 - 11 keekwillee houses and approximately 100 people. Like many First Nation's communities, the smallpox epidemics of the 1860s struck hard in this community. The village site itself apparently sloughed into Bowron Lake in 1964. Some reports attribute this sloughing to undermining and mud slides, while others blame the event on the seismic shock from the 1964 earthquake in Anchorage Alaska.<sup>20</sup> Other First Nations sites have been noted through these parks, including clam middens, buried campfires, projectile points and cache pits, but little formal archaeological or traditional use work has occurred.

Many of the place names in Bowron Lake Park have their origins in the Carrier language, including Mt. Ishpa (meaning "my father"), Kaza Mountain (meaning "arrow"), the Itzul Range (meaning "forest") and the Tediko Range (meaning "girls"). Lanezi Lake is also derived from Carrier language and means "long". Lanezi was known as Long Lake for years.<sup>21</sup>

The Cariboo Gold Rush of the 1860s brought many of the first non-natives into the Cariboo Mountains. Miners and prospectors working along the Fraser River tributaries eventually founded the mining town at Quesnel Forks. Continuing upstream past Cariboo Lake, they came upon what they called Swamp River. This may have been the area of Cariboo River Park. As the miners and prospectors continued on, they would have found Cariboo Falls, and then Unna Lake, Babcock Lake and others in the chain. They likely would have continued up the Matthew River, exploring the valley and perhaps spending time at Ghost Lake. Little documented information exists about these areas. Miners prospecting from Williams Creek

<sup>&</sup>lt;sup>20</sup> Report of 1972 Survey by Ken Marten and Mike Robinson for *System 'E' Wells Gray Provincial Park, Bowron Lake Park* and Upper Fraser Trench. Source is Barkerville Archives

<sup>&</sup>lt;sup>21</sup> Jean E. Spear, 1983, *Bowron Chain of Lakes - Place Names and People*. High Plateau Publishing, Quesnel. B.C.

and Antler Creek would have eventually found Bowron Lake (then known as "Bear Lake"), since the Antler River joins the Bowron River right below Bowron Lake.

Exploration of the Bowron and Cariboo Mountains country continued throughout the 1860s and onward. Canadian Pacific Railroad engineers looked for links through the mountain passes and John Bowron, the Gold Commissioner, sent parties exploring into the hills to look for new gold-bearing ground and routes. One of the routes from the Cariboo to Tete Jaune Cache in the Robson Valley was located along the Goat River Pass. Mileposts were put in and the trail was cleared enough for dog sleds in the winter. The Grand Trunk Railroad, which was built in 1914, put an end to the effectiveness of the Goat River route. Another route through the mountains, called the "Dominion Route" was located between Lanezi Lake and Castle Creek.

From the earliest days of non-native settlement in the Cariboo Mountains, Bowron Lake played a central role. Early entrepreneurs in Barkerville caught kokanee on the lake and sold them to the hungry miners. (Rumour has it an ounce of gold bought a pound of the tasty salmon!) After the gold rush was over, trapping and guiding began to play a larger role in the economy of the area. After the First World War, returning soldiers were given land grants, and a number of families began farming along the Bowron River. Several lodges were built around the lake, and guides with names like Kibbee and Wendle were bringing in tourists for big game hunting.

By the early 1920s there was a concern that wildlife populations were under increasing stress in the Bowron Lake area. Thomas McCabe, John Babcock and Joe Wendle proposed a no-hunting conservation area around the inside of the chain of lakes as a wildlife sanctuary where animals could reproduce without disturbance, using Yellowstone and Glacier national parks as examples. A 240 square mile reserve was established in 1925. Since 1925, Bowron Lake Park has been enlarged a number of times in order to make the boundaries make more ecological sense and to increase recreational access to the lakes. The largest additions came in 1961 when it was originally designated a park and in 2000 with the addition of the Betty Wendle, Wolverine and portions of the Upper Cariboo River.<sup>22</sup>

### Objectives

- To protect and preserve archaeological values and resources within the parks.
- To recognize the historic use of the area by First Nations, guides, outfitters, trappers, and local settlers through interpretive media and management.
- To educate park users regarding the importance and sensitivity of surface and subsurface remains.
- To improve relationships and communications with those First Nations with asserted traditional territories in the parks.
- To increase archaeological, cultural heritage and historic knowledge relating to the parks.
- To work in conjunction with community or special interest groups who have an interest in maintaining the heritage values in the parks.
- To honour existing aboriginal rights.

<sup>&</sup>lt;sup>22</sup> Richard Wright. 1994. Bowron Lake Provincial Park. Heritage House Publishing Ltd. Surrey BC.

### Strategies

- Archaeological Impact Assessments are required for all major developments, but not minor ones.<sup>23</sup>
- Complete a Cultural Overview Assessment (COA) of Bowron Lake canoe circuit.
- Acknowledge and document the source of place names, both Aboriginal and European.
- Undertake a photo-inventory of all known structures in the parks and classify structures in the parks as Type A, B or C. Type A structures would be old, abandoned and unused with heritage value; Type B would have heritage value but still receive use by the public. Type C structures would have minimal heritage value but still receive use by the public.
- Consider short interpretive trails and signage describing the history of Type A structures. Consider signage describing the history of Type B structures. Type C structures do not require interpretation.
- Focus the collection of new cultural heritage knowledge on Cariboo Mountains and Cariboo River parks, using sources such as Victoria Archives, Barkerville Archives, Quesnel, Wells, Bowron Lake and Likely museums and other local sources of historical information.
- Work with other agencies, organizations, and universities to develop partnerships to increase knowledge of heritage values.
- Theme to be used in cultural heritage interpretation of the parks is "First Nations, fur trade, guide outfitting and early efforts in grassroots conservation."
- Protect the integrity of gravesites and graveyards in the parks.
- Undertake interpretation and/or investigation of First Nations' heritage in the parks only with the participation of First Nations.

Click to view plate 22. One of the old trapper cabins located on the Bowron canoe circuit which are heavily used in summer and seeing increasing use in winter. This one is located on McLeary Lake.

<sup>&</sup>lt;sup>23</sup> Major work includes new development such as trails, campsites, boat launches. Minor is defined as maintenance to existing facilities and road, repairs to septic systems, installing signposts, fire rings, bear caches etc.

# 4.7 Bowron Lake Canoe Circuit

### Introduction

Bowron Lake Park is famous for its unique canoe circuit of ten lakes that takes from six to ten days to paddle. The rugged snowcapped peaks of the Cariboo Mountains form a majestic backdrop to the east side, while the west side of the circuit meanders through the gentler Quesnel Highlands. The circuit totals 116 kilometres, including the lakes, sections of the Isaac, Cariboo and Bowron rivers, and several portages. As an alternative to the complete circuit, the west side route from Bowron Lake to Unna Lake and return is a 3 to 4 day canoe trip.

The circuit can be paddled any time from mid-May, when the ice melts, to mid-October. July and August are usually busiest. September, when the deciduous trees are displaying their fall colours, is often the best time to visit. The lakes are over 900 m (3000 ft) in elevation, so nights are cool, even cold, particularly after mid-September.

Visitor information is available at the Registration Centre located adjacent to the main parking lot. All visitors travelling the circuit or the West Side route must register and view a short video at the Centre. There is a vehicle-access campground with 25 campsites on the north shore of Bowron Lake, near the Registration Centre. A gravel boat launch is located at the north end of Bowron Lake near the private lodges.

Cooking shelters, camping areas, and cabins are strategically located around the circuit. The shelters are open log structures intended for cooking and drying equipment, not for camping. There are 54 camping spots around the circuit, ranging from large group sites to small, two pad sites. Camping areas have fire rings, bear-proof food caches and pit toilets. The cabins are intended only for emergency use or for drying out. Emergency radios and staff patrol cabins are placed strategically around the circuit.

On the northwest shore of Bowron Lake near the park entrance are privately operated camping areas and lodges. They provide canoe and kayak rentals, accommodation, supplies, and meals.

The "canoe circuit" is defined as the whole chain of 10 lakes and the "west side" of canoe circuit as Bowron Lake, Swan Lake, Spectacle Lake, Skoi Lake, Babcock Lake and Unna Lake.

### Objectives

- To manage the Bowron Lake canoe circuit as a safe, wilderness-oriented canoeing experience.
- To provide a destination, 6 10 day canoeing opportunity for intermediate canoeists and kayakers.
- To accommodate a 1 3 day canoeing opportunity for regional and local users.
- To minimize the impact of visitors on the natural values and wildlife of the park.
- To accommodate a minimal level of winter activities in the park.
- To maintain a level of infrastructure on the canoe circuit consistent with a wilderness experience.

#### Strategies

#### **Carrying Capacity**

- Manage use levels to, over the medium to long term, achieve a target of a maximum of 46 users to depart on the Bowron canoe circuit (including the west side) on any given day. Departures should be staggered over the course of the day and all measures should be taken to ensure visitors are evenly distributed throughout the canoe circuit. Visitors should be informed that some campsites (e.g. Isaac Lake, Turner Creek) tend to be more crowded than others.
- Of the 46 users, 4 are reserved as daily "drop-ins", allowing 42 to be reserved ahead of time.<sup>24</sup>
- Use number of people, not number of canoes, as primary counting mechanism.<sup>25</sup>
- Continue to provide a 6 10 day backcountry canoeing experience, and accommodate a 1- 3 day backcountry canoeing experience on the west side of the circuit.
- Monitor visitor use on the west side of the circuit, and if congestion is occurring, consideration will be given to discourage this use (e.g. fee increases, restrictions, etc)
- Monitor the perceptions and satisfaction levels of park visitors on a regular basis.

#### Group Use

• Groups of more than 14 people will not be permitted on the canoe circuit. All groups will be required to use the designated reserved group campsites.

#### Use of Firewood and Gas Stoves

- Fires will continue to be permitted on the canoe circuit.<sup>26</sup>
- Encourage the use of single burner gas stoves in order to reduce firewood consumption.
- Educate canoe circuit users about firewood conservation.
- Prohibit multi-burner stoves on the canoe circuit, except for group use.
- Use only dead and down wood for firewood.

#### **Trail Development**

- Maintain the existing portage trails to the current standards.
- Do not develop destination trails around the Bowron Lake canoe circuit or to the interior of the park.
- The Wolverine/Goat River trail re-enters Bowron Lake Park north of Kibbee Lake near Thompson Lake. The old corduroy road may be upgraded to a passable trail. It is expected this trail will join the portage somewhere between the Registration Center and Kibbee Lake. Use of this trail will be managed very carefully to ensure no damage occurs to the sensitive ecosystems in the area. The trail will be closed if impacts are demonstrated.
- Permit the development of short trails to specific unique natural or cultural features around the Circuit.

<sup>&</sup>lt;sup>24</sup> These numbers are targets and should be seen as guidelines for park managers to minimize impacts on the natural values of canoe circuit while enhancing the experience of visitors.

<sup>&</sup>lt;sup>25</sup> Note that both the SuperNatural British Columbia reservation service and the *Park Act* regulations use number of canoes. They assume an average of 2 people per canoe, but permit up to three people in a single canoe. There are special rates for single canoeists and kayakers, as well as for 4 or more people in a large canoe.

<sup>&</sup>lt;sup>26</sup> Due to the wet nature of Bowron Lake Park and the importance of campfires to visitors, fires are viewed as being integral part of the canoe circuit experience.

# Click to view plate 23: Trails on the Bowron Circuit have been vastly improved from the knee high mud that existed in 1973. Some say this is good, others like the old ways

#### **Bear Caches**

- Replace elevated bear caches with ground level, box style bear caches.
- Place bear caches at both ends of portage trails.

#### Powerboats

- Powerboats will not be permitted on the Bowron Lake canoe circuit, except for park operations and safety.
- Powerboats are permitted on Bowron Lake below the Bowron wetlands (See Section 4.6 Bowron Lake, for specific conditions.)

#### **Commercial Use**

- Permit a maximum of 20 canoe trips per year on the canoe circuit during the prime operating season from July 1 –Aug 31. Additional commercial trips may be permitted outside the core season.
- Commercially guided groups will use group campsites.

#### **Facility Development**

- Do not permit the development of new facilities or campsites on the canoe circuit, with the exception of those necessary for public safety.
- Existing facilities can be repaired or upgraded.
- Increase number of tent pads at group sites to a standard of eight per site where physically possible.

#### Winter Use

- Allow backcountry and cross-country skiing, dogsledding, snowshoeing.
- Consider clearing small corridors around water hazards during winter months (e.g. Cariboo River)
- Any winter activities will have to be at the user's own risk and hazards indicated clearly.

#### **Education and Communication**

- Develop and publish a pamphlet (complete with photographs and examples) informing canoe circuit visitors about safe packing techniques (e.g. using dry bags with straps and waterproof food containers), appropriate equipment for the trip (e.g. one burner stoves, no coolers, no suitcase style luggage) and how to store and pack food to reduce possibilities of conflicts with wildlife.
- <u>Strictly</u> enforce all those regulations and guidelines intended to reduce or prevent bear-human conflicts.

#### **Natural Processes**

- Allow natural processes to continue.
- Where a natural process conflicts with the management of the canoe circuit (e.g. siltation of lakes, vegetation in-growth etc) assess the risk to natural and cultural values before undertaking management actions.

Click to view plate 24: The west side of the Bowron Lake canoe circuit. Cariboo River in foreground, with Babcock, Skoi, Spectacle and Swan can be seen in the distance. Sugarloaf Mountain, at the end of Bowron Lake, can be seen in the background. Forest development can also be seen at the top left adjacent to the approximate park boundary, shown as a dotted line.

Capoe Carts • Permit the continued use of canoe carts on the Bowron Lake canoe circuit. Encourage the use of new technology carts using wide, low impact tires. •

#### Cabins

- Maintain cabins using historic materials where possible. Consider accepting corporate donations and • recognizing/acknowledging these donations within the park.
- Educate park visitors regarding etiquette of cabin use. •
- Provide interpretive materials to inform visitors about the history of the public cabins in the park. •

## 4.8 Outdoor Recreation Opportunities Management

### Introduction

Cariboo Mountains, Cariboo River and Bowron Lake are three very different parks. Each park has a range of recreational use and opportunities that vary by the amount of access, public information and the nature of their landscapes. The following describe the recreational vision (or "concept") for each park. The main tools used to implement these visions are the recreational objectives and strategies found below and the zoning of each park.

#### **Bowron Lake – Recreation Concept**

Bowron Lake is one of the busiest and best known backcountry parks in British Columbia. Many books have been published on the chain of lakes, over a thousand websites are devoted to providing information on the area, and between 5,000 - 7,000 visitors use the backcountry canoe circuit every year. The majority of the use occurs between the months of May and September, with July and August being the busiest. Winter use is currently very low and is limited to local residents skiing and snowshoeing. The vast majority of use in the park occurs on the chain of lakes, with negligible use of the surrounding mountains or the interior of the park.

The recreation concept for Bowron Lake Park is focused on maintaining the wilderness nature of the canoe circuit. Daily use numbers will remain at status quo or be reduced slightly in order to minimize impacts on wildlife, facilities and other users. Facilities will be maintained and restored, with no new facilities constructed (with the exception of those related to safety and managing bear-human interactions). Winter use of the circuit will be permitted, with the circuit cabins made available for winter users. Small bypass trails may be marked which would enable areas of unsafe ice during the winter to be avoided.<sup>27</sup>

The actual use of the backcountry of Bowron will change very little from status quo. No new long trails would be constructed into the interior or periphery of the park, although short interpretive trails to specific features (e.g. waterfalls or heritage cabins) will be considered. Bowron Lake itself would become more welcoming to local and regional users through the development of a small day use area, improved interpretation and signage, and the construction of one or more short interpretive trails.

The Wolverine addition to Bowron will provide the access through the park to the Robson Valley for a summer hiking and horse trail and a potential winter snowmobile trail. No connections between this trail and the Bowron canoe circuit will be permitted. This potential snowmobile corridor will be the only motorized recreation allowed in this park.

<sup>&</sup>lt;sup>27</sup> Since the parks are not patrolled in the winter, BC Parks considers any winter use of the park completely at the user's own risk.

#### **Cariboo Mountains – Recreation Concept**

As a relatively new park in British Columbia's protected areas system, current recreational use of Cariboo Mountains Park is quite limited. Currently, the main uses are guided hunting and fishing with some limited frontcountry camping and boating at Ghost Lake. Helicopter skiing occurs in approximately 30% of the park near the headwaters of the Mitchell and Niagara drainages. Access to the park is primarily by jetboat in the case of the Mitchell River, by floatplane to Mitchell, Christian (a.k.a. Windy) and Ghost lakes, or by vehicle to the recreation site at Ghost Lake. The side valleys of the park can also be accessed on foot by old deactivated logging roads adjacent to the park.

The recreation concept for this park is to retain its remote, wilderness character and to provide recreational opportunities compatible with its significant wildlife values. Access to the park would still be permitted by floatplane or helicopter for fly-in hiking and other backcountry opportunities, and by vehicle to Ghost Lake. Due to the high potential for human-grizzly bear conflicts in this park, trails and campsites will generally not be constructed in the backcountry and the Mitchell River Special Feature Zone will be closed to overnight camping.

Winter use in the park will be allowed, with emphasis on non-motorized recreation or limited mechanized use for pick-up and drop off only. The main consideration for managing winter use is to limit impacts to the significant goat and mountain caribou populations in the park as well as denning bear and wolvernine populations.

The Ghost Lake recreation site is envisioned as the main use node for the park. The campsite will be upgraded as use increases and demands warrants, and park directional signage will be provided on the 3100 Road.

Click to view plate 25: Another side valley draining into the Matthew River Valley. Approximate park boundary is shown by the dotted line. The lake in the foreground is popular among local fishers.

#### **Cariboo River – Recreation Concept**

Cariboo River was managed as a Wildlife Management Area (WMA) by the former Ministry of Environment from the early 1980s to 1995 when the area was established as a Class A park. The primary reason for the WMA designation was to conserve critical moose winter range. Under the WMA designation, recreation continued to be an acceptable use in the area.

The recreation concept for this small park is to provide opportunities that are compatible with the moose populations and vegetation it was designed to protect. Water-based activities such as fishing, driftboating, wildlife viewing and motorized boating are all considered compatible, with hunting recognized as a permitted traditional activity. The main access to this park will continue to be at the Cariboo River bridge crossing. A small day use area will be considered near the bridge as demand warrants. Due to the high wildlife values in the park, overnight camping will not be permitted.

#### **Commercial Recreation Opportunities**

Part of the rationale for completing a management plan for this block of parks was to recognize the potential for commercial tourism opportunities. Wells, for example, is part of the former Ministry of Tourism's "Gateway Community" program, which has the goal of providing links between protected areas and adjacent communities. There is also land use plan direction for these uses. The *CCLUP* states that parks:

...will be available, in principle and where appropriate, for commercial tourism and recreation. Development opportunities will be identified during area-specific management planning which will recognize the protection of the special natural values of each area and the provision for public non-commercial recreation. In some circumstances, development opportunities may include "fixed roof" accommodation. (*CCLUP* 90 Day Implementation Report).

One of the issues with commercial tourism opportunities in parks has been the challenge of finding opportunities that are compatible with the natural values for which the park was created. For the purpose of this plan, 17 activities/opportunities have been identified. The identified activities:

- are compatible with park values and the management plan;
- are located in areas with few conflicts between wildlife and/or other users;
- will have spatial and temporal boundaries placed on them; and,
- will be advertised on a competitive basis to ensure the best-qualified operator is successful.

More details on these opportunities can be found in Appendix A.

#### **Objectives**

- To provide high quality, low impact recreation activities that have minimal impact on wildlife and other park values.
- To enhance visitor awareness of wildlife populations and possible human-wildlife conflicts.
- To ensure recreation activities are managed and monitored for their potential impacts on natural and cultural heritage values, particularly on wildlife and fish populations.
- To provide opportunities for commercial recreation which are compatible with the values of the parks.
- To ensure public access to the parks is not pre-empted by commercial recreation activities.
- To issue, in Cariboo Mountains and Cariboo River Parks, Park Use Permits for those activities that existed prior to October 1994.
- To issue, in the Betty Wendle, Wolverine, and Upper Cariboo River additions to Bowron Lake Park, Park Use Permits for those commercial activities that existed as of June 2000.

#### Strategies

#### Frontcountry Camping and Day Use Areas

- Develop a day use area at Bowron Lake adjacent to the canoe dock (See 4. 4 Bowron Lake for more details)
- Over the medium term or as demand warrants, upgrade the Ghost Lake campsite and install a boat launch.

- Over the medium to long term or as demand warrants, develop a day use area, boat launch and interpretive site at the bridge crossing the Cariboo River in Cariboo River Park.
- No other frontcountry camping permitted outside of the Intensive Recreation Zone.

# Non-Mechanized Public Recreation (backcountry hiking, backpacking, mountaineering etc)

- Permit public, non-mechanized recreational use throughout all of the zones in all of the parks.
- Ensure that all park information specifies the undeveloped nature of the backcountry so that conflicting expectations are avoided.
- Provide education to large groups of hikers to minimize impacts and human-wildlife conflicts, and encourage smaller groups of hikers.
- No overnight camping in the Mitchell River Special Feature Zone.

#### Angling

- Manage natural stocks in conjunction with Fish and Wildlife, Science and Allocation Section (Ministry of Water, Land and Air Protection) and Fisheries and Oceans Canada, using regulations to maintain natural fish diversity and populations viability.
- See 4.2 Wildlife and Fish, for specific direction on Bowron Lake and Mitchell River.
- Guided angling will not be permitted on the Bowron Lake Chain of Lakes.

#### Boating

- Boats are not permitted above the limits to navigation sign on the Upper Bowron River (See 4. 4 Bowron Lake section)
- The following restrictions apply to boating on the Mitchell River:

a) Spawning beds (7 km and up) closed to motorized access September 15 – July 1. Foot access only b) Recommendation to Canadian Coast Guard that a 200+ horsepower restriction be placed on the whole river year round.

c) Recommendation to Canadian Coast Guard that personal watercraft (e.g. jet-skis) be banned from the river year-round.

d) Recommendation that the river be considered as a "Class One" River.

e) Minimize the number of daily trips per boat on the river

f) Utilize education and advertising to inform the public about grizzly bear hazards and potential impacts of fishing on bull trout habitat and populations.

• The following restrictions apply to boating on Bowron Lake:

a) prohibit the launching of personal watercraft (jet-skis) on Bowron Lake.

b) work with the Coast Guard to prohibit the operation of personal watercraft on Bowron Lake c) prohibit houseboats on Bowron Lake.

d) horsepower restrictions will not be considered at the present time. Use will be monitored and restrictions may be recommended if unacceptable impacts are demonstrated.

e) educate canoe circuit paddlers that Bowron Lake is multi-use and motorboats can be expected. Possible strategies include signing the end of the wetland where the Bowron River enters Bowron Lake; and including this message in the Registration Center video.

f) develop a Code of Ethics for motorboats in cooperation with Coast Guard and inform motorboaters.

• Motorized boats permitted on all lakes throughout the parks, with the exception of the Bowron Lake canoe circuit, Hunter Lake, Christian Lake and Twin Lakes. Motorized boats may be used for park management purposes (e.g. ranger patrols, park facility operators and transporting supplies and equipment)

#### Management Using Ecological Integrity Principles: Recreation

BC Parks recognizes that recreation in a natural environment is a key function of protected areas. As such, the management of protected areas must ensure the maintenance of the natural environment as the basis for visitor use and enjoyment. The management of human recreation in protected areas must reflect the principles of ecological integrity by allowing activities that are appropriate and not detrimental to the local environment.

A wide variety of types of recreation are allowed within these parks. No-trace camping, canoeing, angling and existing heli-skiing and heli-hiking, for example, are all deemed acceptable uses within these parks. However, where certain activities are allowed is based on sensitivities of the ecosystem. And while humans are a part of the parks' ecosystem, we recognize that there are areas where the needs of other species prevail.

#### Horse and Llama Use

- Horses and llamas are permitted in the Natural Environment and Wilderness Recreation zones, but not in the Intensive Recreation, the Wilderness Conservation or Special Feature zones.
- Horses are not permitted on the portages in Bowron Lake Park.
- Undertake forage assessments in frequently used areas.
- Assess conditions and monitor the effects of horse use and regulate as necessary. Trails may be closed during certain conditions (extended periods of rain, late thaws, etc.)
- Encourage all horse users to follow a Code of Ethics and to use weed-free pellets for large groups.

#### Hunting

- Recognize hunting as a pre-existing and allowable activity in Cariboo Mountains and Cariboo River parks, as well as the Wolverine, Betty Wendle and Upper Cariboo River additions to Bowron Lake Park.
- No hunting in the pre-2000 boundaries of Bowron Lake Park.
- Access to the Betty Wendle and Upper Cariboo River for hunting purposes will not be permitted through the Bowron Lake canoe circuit.

#### **Mountain Biking**

- Mountain biking is permitted throughout these parks with the exception of the Wilderness Conservation Zone. Users will be encouraged to use existing trails and roads. Levels of use and areas of use may be adjusted over time if impacts are demonstrated or user conflicts develop.
- Bicycles are not permitted on any of the Bowron Lake portage trails, except for park management purposes.

#### **Helicopter Hiking**

- Existing helicopter hiking is permitted in the Betty Wendle drainage.
- Access by helicopter to several areas for hiking may be permitted. These commercial opportunities and the conditions placed on them are outlined in Appendix A.

#### **Helicopter Skiing**

One of the major issues that arose during the planning process was the appropriateness of motorized recreation in general and heliskiing in particular. Public input generated during the planning process identified three major concerns with motorized recreation. These concerns included the potential impact on wildlife; the lack of information on critical habitats in the park; and the impacts on existing or anticipated wilderness recreation activities in the park.

Concerns with wildlife focused primarily on the endangered mountain caribou. Mountain caribou, which include the caribou in this area, were placed on the red-list of "species at risk" by the Conservation Data Centre in 2000 because of continuing declines in abundance and current threats. In 2000, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) listed these caribou as nationally threatened.

In response to this listing, British Columbia is currently developing a Provincial Mountain Caribou Recovery Plan (PMCRP) that addresses the threats to this species and its habitat. A short-term goal of the PMCRP will be to encourage scientific research that will provide recommendations on ways to manage recreational access to minimize negative effects of disturbance on caribou movements and habitat use.

- Helicopter skiing is permitted in the Betty Wendle, north half of the Upper Cariboo River and the headwaters of the Niagara and Mitchell drainages consistent with tenures that existed at the time of park creation.
- New or expanded helicopter skiing will only be considered when it can be demonstrated, through scientific research and consistent with the Provincial Mountain Caribou Recovery Plan, that helicopter skiing can be done in a manner that is not detrimental to the local population of mountain caribou.
- Work in partnership with academic institutions, other government agencies and helicopter skiing organizations to increase knowledge about the interactions between helicopters and wildlife, focusing on mountain caribou.

#### Nature Study and Cultural Appreciation

- Develop educational materials for wildlife viewing including ethics.
- Work with First Nations and museums, organizations and agencies (e.g. universities, Barkerville Historic Town) to develop interpretive materials.

#### Winter Recreation

- Backcountry skiing and snowboarding, cross country skiing, dogsledding and snowshoeing are all permitted activities throughout all zones in all of the parks.
- Short routes or trails may be blazed or cleared around the Bowron Lake Chain of Lakes in order to bypass areas of ice hazard (e.g. Cariboo River).
- Dogs must be controlled at all times in order to minimize impacts on wildlife during the critical winter period.
- Provide information to winter users about potential hazards.

#### **Recreational Guiding**

• Types of acceptable recreational guiding are outlined in Appendix A.

#### **Trail Use and Identification**

- Due to the wilderness nature of these parks, formal trails will not be built or signed (exceptions include short interpretive trails around the Bowron Circuit and short interpretive trails from the Bowron Lake campground. See 4.4 Bowron Lake and 4.7 Bowron Lake canoe circuit for details).
- Routes and trails may be seasonally closed due to bear and wildlife hazards or during certain conditions (late thaw, extended periods of rain, blowdown).

#### Caving

- Discourage public use of caves by not publishing or promoting cave locations or values.
- Prohibit the use of caves in the parks for commercial recreation. Some very limited public use may be permitted by Park Use Permit under special conditions.

#### Snowmobiling

- Snowmobiling is permitted as an existing use on Ghost Lake and Roberts Peak. While snowmobiling is permitted in these areas, use will not be signed, promoted or encouraged.
- Snowmobiling also permitted at the north end of Bowron Lake only for residents travelling to cabins accessible by water (special conditions apply on Bowron Lake, see 4.4 Bowron Lake for more details).
- A snowmobile corridor will be considered through the Wolverine addition to Bowron Lake Park (see 4.5 Access and Adjacency for more details).
- A snowmobile corridor will be permitted along the Z-Road from outside Cariboo Mountains Park to Quesnel Lake. The area will be signed open. If the Mitchell wetlands are being used, or if impacts to other park values are being demonstrated (e.g. swans, moose etc), the corridor will be closed.

# **5.0** Communications

### 5.1 Introduction

Managing the information that visitors to these parks receive, both prior to their trip and during their time in the park, provides an important opportunity to increase visitor enjoyment and improve the management of the parks. Information and its management can:

- Set visitor expectations and assist in planning recreational uses;
- Promote user etiquette and minimize conflict between users;
- Increase the safety and security of visitors;
- Minimize impacts on wildlife, vegetation and other park values;
- Create an awareness and appreciation of natural settings, cultural features and conservation messages; and,
- Build support for management efforts in the parks.

These three parks have a range of conservation and recreational values as well as a range of management services that can provide opportunities to deliver a number of key messages. These conservation and recreation values must be incorporated into information that is provided to both park visitors as well as to the broader public that is interested in protected area management (e.g. forest licensees, international conservation organizations etc).

### **5.2 Interpretation and Management Messages**

A number of sections of this plan have outlined the general management concerns for this block of parks. These concerns (in no particular order) include:

- Safety of visitors to the parks (e.g. bear/human interactions on the Bowron canoe circuit and the Mitchell River, canoeist safety, winter activities avalanches and weak ice);
- Conservation and protection of both listed (e.g. mountain caribou, grizzly bear, wolverine etc) and non-listed (moose, black bears, goats etc) species in the parks;
- Balancing natural processes in the parks with management (e.g. fire and forest health) in order to re-establish a more natural distribution of vegetation across the landscape;
- Increasing knowledge of natural processes, predator-prey ecosystems, and fish and wildlife habitats and populations (e.g. inventory and research);
- Managing human use to provide long-term wilderness recreation opportunities;
- Meeting the objectives of the land use plans that created the parks.

Considering the above management concerns, the following messages should be integrated into any public information efforts around these parks (e.g. brochures, interpretive programs, signage, presentations, guidebooks etc):

- 1. All activities are managed to ensure ecological integrity is unimpaired.
- 2. Bowron Lake Park as being unique and valuable in British Columbia's protected area system because it is one of the few large parks which is managed (original boundaries) as a no-hunting/trapping wildlife sanctuary.

- 3. Bowron Lake Park as a world class wilderness canoe destination.
- 4. The theme to be used in cultural heritage interpretation of Bowron Lake Park is "First Nations, the fur trade, guide outfitting and early efforts in grassroots conservation."
- 5. All the parks contribute to protecting an extremely large (5<sup>th</sup> largest in the province), unroaded predator-prey ecosystem (e.g. undeveloped watersheds stretching from Bowron Lake all the way through Wells Gray Park). This should also stress the connectivity role of Cariboo Mountains in linking Bowron Lake Park with Wells Gray Park.
- 6. Proper safety and backcountry practices. In particular, messages should stress the importance of proper behaviour around bears and procedures in bear country, paddling safety and correct packing for backcountry trips, and the importance of pack-in/pack-out and self-reliance in the backcountry.
- 7. User etiquette. This etiquette should stress appropriate behaviour around wildlife in order to avoid habituation, direct impacts and displacement from key habitats. As well, education should focus on etiquette around other park users, including use of and sharing of cabins, replacement of firewood used in cabins, motorized boats around paddlers, noise in wilderness areas, pack-in/pack-out etc.
- 8. Managing expectations about access to the parks and the level of facilities provided. It will be important to provide the rationale for management services provided or not provided. For example, trails not constructed in valley bottoms in Cariboo Mountains Park because of extremely high grizzly bear hazards or no snowmobiling in Cariboo River Park because of its importance as habitat for moose in critical winter periods.
- 9. Encouraging use of the Bowron Lake canoe circuit in the shoulder seasons (May June and September) for those seeking fewer encounters with other visitors.
- 10. The importance of the parks in providing habitat for listed species. This should include information related to the vulnerability of these species in a provincial context (e.g. the decline of mountain caribou populations across the province; Mitchell River as one of the few intact areas in the interior where grizzlies have access to large populations of spawning salmon.)
- 11. BC Parks is working with other agencies and stakeholders on managing insect infestations and fire in areas adjacent to commercial forests outside the park. BC Parks is working cooperatively and aggressively pursuing all options available under the *Park Act* to limit the impact of natural processes inside the park on resources outside the park.
- 12. Cariboo River Park is an important area for providing habitat for moose in their most critical winter periods. In addition, the value and contribution of the wetlands in this park to waterfowl and migratory birds should also be communicated through any publications or public information.
- 13. Managing complex predator-prey ecosystems sometimes requires intensive short term management to re-establish balance. In the case of these blocks of parks, this may mean temporarily reducing wolf populations in order to provide opportunities for the red-listed caribou populations to recover.

#### Objectives

- Ensure information (published and verbal) is consistent with the park's visions, roles and the key messages outlined above.
- To work cooperatively with local and regional tourism agencies, chambers of commerce, permit holders and other non-government agencies in communicating the key messages about the parks.

- To provide accurate and appropriate information for recreational users of the parks.
- To communicate the important conservation, recreation and cultural heritage roles and values of these parks to park visitors and other interested groups or organizations interested in the parks (e.g. magazines, SHARE groups, and other agencies).

#### Management Using Ecological Integrity Principles: Communications

Ecological integrity is a key communication message for BC Parks within Bowron Lake, Cariboo Mountains, and Cariboo River parks. Interpretation and communications can create a broader understanding of local ecology and ecological integrity; foster appreciation of protected areas; teach responsible use of parks; and create a better understanding of the issues that affect ecosystems within the parks.

The communications strategy for these parks will focus on the parks' ecology as it relates to safety (e.g., travelling in bear country), etiquette (e.g., pack in/ pack out, no trace recreation), visitor expectations (e.g., quality of wilderness experience), and education (e.g., interpretive signage and brochures on the ecology of the area being visited).

#### Strategies

- Work with First Nations to develop interpretive materials relating to First Nations' historic and present use of the area.
- Use the Bowron Registration Center as the main source of information for Bowron Lake Park.
- Work with Cariboo Chilcotin Coast Tourism Association, Chambers of Commerce and other agencies and groups which publish information to communicate the sensitivity of fish resources on Mitchell River and changes in regulations (e.g. jetboat restrictions, Class One River etc).
- Develop a pamphlet to educate paddlers on appropriate packing techniques (see Section 4.7).
- Use information kiosks at Ghost Lake and the Cariboo River bridge to communicate park values and key conservation messages.
- Encourage school groups, communities and interested individuals to research the history of these parks to increase knowledge.
- Develop interpretive materials related to how BC Parks is addressing insect infestations and fire management in the parks.
- Liaise with various conservation organizations, naturalist clubs, industry organizations (e.g. CLMA), and local government land use plan monitoring groups (e.g. Cariboo Communities Coalition) on a regular basis to discuss ongoing management issues.
- Develop self-guided interpretive trails from the Bowron Lake Campground that provide information about the conservation and cultural heritage history of the area (see 4.4 Bowron Lake section). Consider partnering with adjacent forest licensees to discuss forestry management on areas bounding the parks.
- Develop an entrance sign at Bowron Lake that shows park boundaries, access to the lake, private services and discusses user etiquette. (see 4.4 Bowron Lake section)
- Develop the image of Bowron Lake Park as a day-use friendly area.
- Actively promote the Bowron Lake canoe circuit in order to fill available reservation openings.

# **6.0 Monitoring Strategy**

### 6.1 Introduction

Monitoring the continuing status of the health of ecosystems, wildlife and fish populations, and the levels and impacts of recreational use in these three parks is vital to ensuring the ecological integrity of the parks. As such, a proactive and well-planned monitoring strategy is key to guaranteeing that the spirit and intent of this management plan is followed.

Monitoring vegetation, insects, recreational use, fish spawning patterns and wildlife populations is not solely the responsibility of BC Parks. Many other agencies and groups either play a central role at the present time (e.g. Fisheries and Oceans Canada, Ministry of Forests, Ministry of Sustainable Resource Management) or could be partners in monitoring. Examples of new partners may include Rod and Gun Clubs, First Nations, commercial operators and permit holders, community groups, universities and colleges, naturalist clubs, paddling, hiking, skiing groups or even interested individuals.

#### Management Using Ecological Integrity Principles: Ecosystem Science – Research, Inventory and Monitoring

A solid understanding of ecosystem science and the ecology of protected (and surrounding) areas is a critical component of managing for ecological integrity. Management decisions for protected areas need to be based on the best and most up-to-date information possible.

Research, inventory and monitoring are tools used to gain this type of information. Knowledge gained from research creates a fuller understanding of ecosystem science and allows treatment of the causes of loss of ecological integrity, not just treatment of the symptoms. Inventories provide a snapshot of the present conditions of an ecosystem and allow future monitoring from this baseline data. Monitoring is important because it provides feedback for management actions and is essential for adaptive management.

The implementation section of this management plan identifies the priorities for researching and inventorying where there are gaps in sufficient information to make appropriate management decisions. Monitoring programs have also been identified as ways to track change and apply adaptive management strategies when limits of acceptable change are exceeded.

### Objectives

- To monitor the seral stage distribution of vegetation across the parks to ensure the objective of achieving a mosaic of age classes appropriate to the Natural Disturbance Type as outlined in the *Forest Practices Code Biodiversity Guidebook*.
- To monitor the distribution and population of umbrella species, keystone species and listed species in the parks.<sup>28</sup>
- To monitor the instances of bear/human conflicts across the parks.

- To monitor the impact of recreational uses on fish, wildlife and vegetation in the parks.
- To monitor patterns, levels and trends of recreational use.

#### **Strategies**

#### **Recreational Monitoring**

#### 1. Photopoints<sup>1</sup>

Photopoints (e.g. Backcountry Recreation Impact Monitoring) can be established at key points on managed and unmanaged trails (e.g. Mitchell Lake trail, Cariboo Falls trail, Hunter Lake trail, Niagara Creek trail), campsites, and rough roads (i.e. Z Road) throughout the parks. Photopoints should also be established to monitor visual landscape objectives adjacent to the parks. Photopoints should be updated once every five years.

#### 2. Overflights

Work with Fisheries and Oceans Canada on creel counts and fish counts to determine amount of fishing pressure on lakes and rivers throughout the parks. Particular emphasis should be placed on Bowron, Ghost and Mitchell lakes, Cariboo River and the Mitchell River. An easy to complete form or card can be developed and distributed to these agencies.

#### 3. Trail Counters

Consider using trail counters or cameras to determine human and wildlife use of key trails (e.g. Mitchell Lake/River) in the parks.

#### 4. Ranger/Wardens/Friends of .../Park Watch

Consider using staff or other partners in monitoring use levels and patterns of use around rivers or trails. This may include a Guardian Program, Friends of Cariboo Mountains or increased Park Ranger patrols into certain areas on a regular or random basis to determine use patterns in a statistically significant manner.

#### 5. Surveys/Self registration

User satisfaction surveys, self-administered backcountry surveys and self registration can be implemented to determine use of areas, user conflicts, satisfaction levels and management issues. Ghost Lake may be an ideal location for a trial of this program.

#### 6. Hosts

Consider using hosts or other BC Parks sponsored presence at the Ghost Lake campsite to determine use levels.

#### 7. Commerical Operators

Work with commercial operators to develop and implement a simple, user-friendly method for reporting on numbers and activities of other users they encounter.

<sup>&</sup>lt;sup>1</sup> **Photopoints** are areas where photographs are consistently taken. They can be used to monitor and track and communicate visible changes over time.

#### 8. Park Watch

Encourage a Park Watch program, similar to the Wilderness Watch program, in the backcountry of these parks.

#### **Conservation Monitoring**

#### 1. Overflights/Annual Counts

Work with other agencies to determine census areas in the parks and regular (e.g 1 - 3 years) census intervals for monitoring moose, goats, wolves, mountain caribou and other species in the parks (see 3 below).

#### 2. Cameras

Consider using cameras to monitor bear and other wildlife populations. This may be particularly useful in remote areas like the Mitchell River spawning pools and the Upper Bowron River.

#### 3. Identify Keystone or Umbrella Species

Identify a number of keystone and umbrella species to focus monitoring on. These may include bull trout and salmon for fish, grizzly bears and caribou for large mammals, and loons for waterfowl. Monitoring should focus on the long term population trends of these animals.

#### 4. Forest Health Monitoring

Working in association with the Ministry of Forests, complete annual aerial survey of bark beetle and defoliator populations.

#### 5. Commercial Operators

Work with commercial operators to develop and implement a simple, user-friendly method for reporting on animals encountered and animal behavior observed. Commercial operators can play a key role in monitoring, enforcement and inventory. These roles need to be better defined and discussed.

#### 6. Creel Surveys

Use creel counts to monitor fish populations and catch levels.

### 6.2 Role of the Advisory Group

BC Parks acknowledges the important role of the Advisory Group in helping to determine the long-term vision for these parks and providing the strategies of how the vision can be implemented.

The Advisory Group (AG), which was formed through the management planning process, will continue to have a role in providing direction for the management of this block of parks. The AG will be invited to meet yearly to discuss ongoing implementation of the plan, information needs and results of monitoring.

BC Parks will keep a mailing list of AG members. In the interest of cost and efficiencies, members who are not participating may be deleted from the list over time. A letter asking if the person is still interested in receiving information will be sent prior to that person being removed from the list. New members may be added to the AG list.

### 6.3 Adaptive Management

The concept of **"learning by doing"** or **"adaptive management"** has become widely accepted in resource management and environmental planning. Adaptive management is generally thought of as being flexible, encouraging public input, and uses extensive monitoring to look at the results of actions in order to adjust plans and try new approaches. Adaptive management essentially involves a three-stage process of planning, action, and monitoring.

For the purposes of the Bowron Lake, Cariboo Mountains and Cariboo River provincial parks Management Plan, adaptive management will be balanced with a need to provide long-term direction on management of the parks.

The plan has a life of ten years after which a formal public review will be undertaken of the vision, purpose, roles and zoning. In the interim however, adaptive management will be applied to areas such as recreation management (user numbers and use levels), wildlife management and vegetation management (e.g. fire and beetle management strategies). Commercial recreation strategies, for example, may change over time. The plan should be able to adapt and use new guidelines as they are developed.

Park managers will work to adjust strategies in response to new information collected through monitoring and public feedback (e.g. surveys). It is anticipated that the Advisory Group will have an ongoing role in both the collection of data and in making recommendations on decision making and change management.

<sup>&</sup>lt;sup>4</sup> Major work includes new development such as trails, campsites and boat launches. Minor is defined as maintenance to existing facilities and roads, repairs to septic systems, installing signposts, fire rings, bear caches etc.

# 7.0 Plan Implementation

Implementation of strategies in this management plan depends upon the availability of staff and resources within BC Parks, other agencies with a management role, First Nations and the enthusiasm and support of the public. Approval of this management plan does not constitute automatic approval of funding for implementation or individual tasks.

Timeframe indicates when a strategy should be initiated. An asterix (\*) means the strategy is ongoing. The reference to the different program indicates the BC Parks program with a lead responsibility for ensuring an action is initiated. This section should be used by the Advisory Group to monitor the effectiveness of plan implementation and should also be used as the primary tool by BC Parks staff when completing Annual Management Plans (AMPs) for the parks.

#### 7.1 Immediate (1-2 years)

- Authorize, by Park Use Permit, the continuation of pre-existing uses, including trapping, heli-hiking, heli-skiing, angle guiding, guide outfitting, horse tours, wildlife viewing and recreational guiding. Permits should be issued only for those activities that existed prior to June 1994 in Cariboo Mountains and Cariboo River Park and June 2000 for the additions to Bowron Lake Park.
- Require Fisheries and Oceans Canada to acquire a permit for the dam at Mitchell Lake.
- Work with Ministry of Forests to ensure logged blocks inside parks are free growing and roads are appropriately deactivated.\*
- Ensure long-term monitoring of wildlife populations inside the parks and coordinate this monitoring with areas outside and adjacent to the parks.
- Recommend that Hunter Lake be closed to fishing from November 1 until May 1.
- Archaeological Impact Assessments required for all major developments, but not minor ones.<sup>4</sup>\*
- Close the yearly trapping opportunity in the Betty Wendle addition to Bowron Lake Park.
- Require permit holders to clean camps and remove structures which are dilapidated or no longer required.\*
- Strictly enforce all bear management guidelines (e.g. use of bear caches, food storage and handling etc) \*
- Work with licensees and agencies to ensure development around the park values is sensitive to park values. \*
- Protect the integrity of gravesites and graveyards in the parks.\*
- Work with the Coast Guard to prohibit the operation of personal watercraft on Bowron Lake.
- Educate park users about bear hazards and safe behavior in bear country.
- Use signage to prohibit the launching of personal watercraft on Bowron Lake
- Sign the end of the wetland where the Bowron River enters Bowron Lake with a notice that the lake is multi-use and motorboats can be expected. Include this message in the Registration Center video.

- Develop a Code of Ethics for motorboats in cooperation with Coast Guard and inform motorboaters.
- Educate canoe circuit users about firewood conservation and etiquette of cabin use.
- Sign Bowron Lake closed to snowmobiling (with the exception of local landowners, who require a permit to ride on the lake to their property).
- Use signage to ensure snowmobilers are aware of which areas are open and closed to snowmobiling.
- Develop and publish a pamphlet informing canoe circuit visitors about safe packing, appropriate equipment for the trip, and how to store and pack food to reduce possibilities of conflicts with wildlife.
- Liaise with various conservation organizations, naturalist clubs, citizen groups (e.g. SHARE), industry organizations (e.g. CLMA) and local government land use plan monitoring groups (e.g. Cariboo Communities Coalition) on a regular basis to discuss ongoing management issues.\*
- Work with Cariboo Chilcotin Coast Tourism Association, Chambers of Commerce, and other agencies and groups which publish information to communicate the plan, its objectives and any changes in regulations (e.g. jetboat restrictions on the Mitchell River). \*
- Use shelters at Ghost Lake and the Cariboo River bridge to communicate park values and key conservation messages.\*
- Provide information to winter users about potential hazards.
- Monitor use and conflicts of motorized watercraft on Bowron Lake.
- Consider developing a small day use area adjacent to the Registration Center on the shore of Bowron Lake, using the existing parking lot at the Registration Center. A small dock should be constructed as part of the site.

### 7.2 Short Term (3 - 5 years)

- Develop a long-term management plan for wildlife in conjunction with the Ministry of Forests, forest licensees, recreation groups, guides and First Nations. This should include habitat prescriptions, understanding predator-prey ecosystems, connectivity corridors, mapping wildlife ranges, distribution, habitats and movement patterns.
- Prepare a fisheries management plan for the lower Mitchell River and Bowron Lake. In the interim, the recommendations in section 4.2 Wildlife and Fish, should be followed.
- Undertake research on spawning locations and life history of bull trout.
- Increase understanding of the Isaac Lake rainbow trout populations.
- Investigate, in partnership with Fisheries and Oceans Canada, the effectiveness and future of the water control structure at the outflow of Mitchell Lake.
- Update fisheries inventory throughout Bowron Lake Park according to formalized RIC standards.
- Increase understanding of public angler effort and use, focusing on Mitchell Lake, Ghost Lake, Cariboo River and the lower Mitchell River.
- Consider establishing day use trails to Sugarloaf Mountain and Devils Club Mountain.
- Work with the BC Floatplane Association and Thompson Region, Environmental Stewardship Division, to develop access guidelines for floatplane use on Twin Lakes.

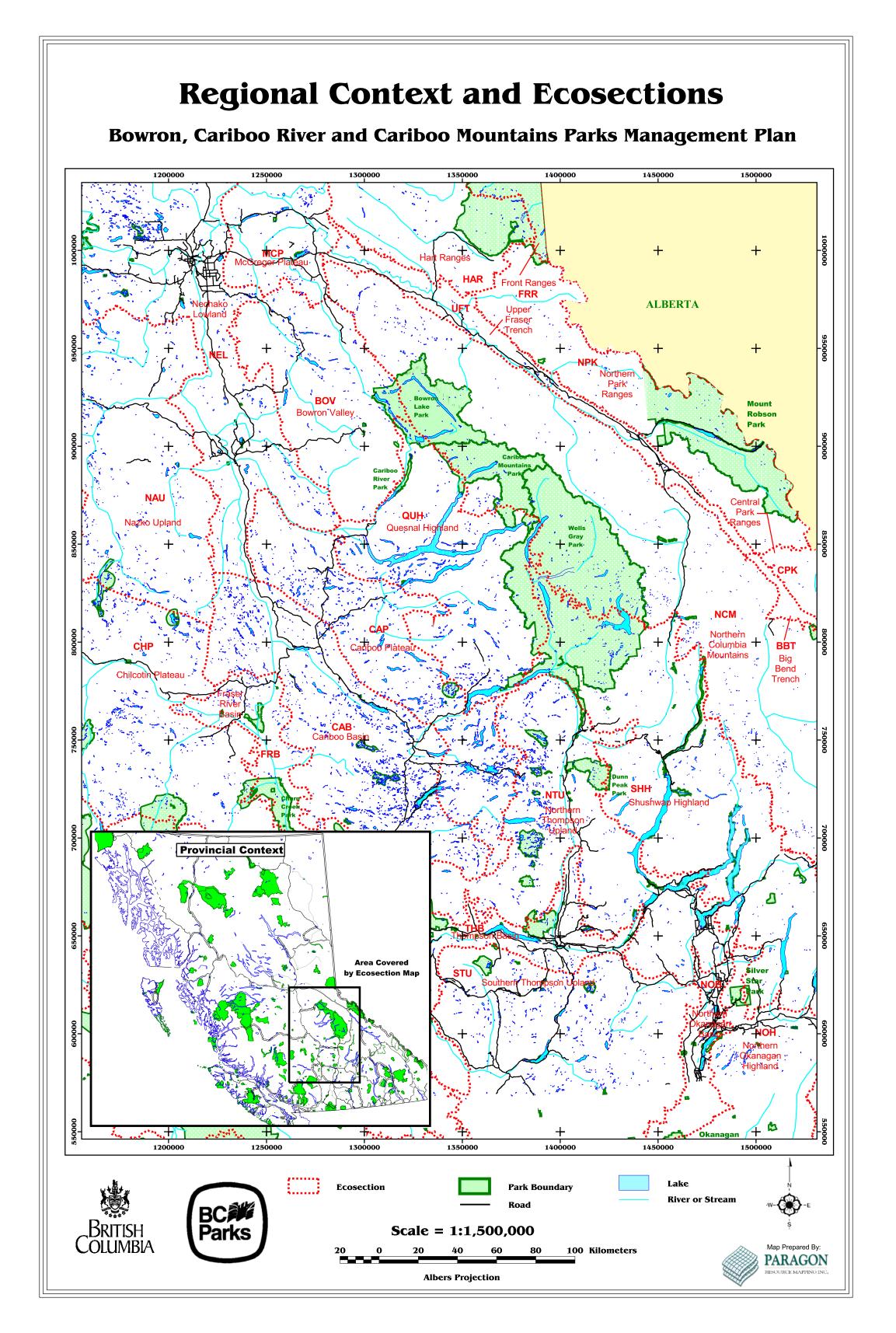
- Develop a day use area at Bowron Lake adjacent to the canoe dock.
- Develop an entrance sign/information kiosk at Bowron Lake that shows park boundaries, access to the lake, private services and discusses user etiquette.
- Develop the image of Bowron Lake Park as a day-use friendly area.
- Provide education to large groups of hikers to minimize impacts and human-wildlife conflicts, and encourage smaller groups of hikers.
- Develop a Code of Ethics for motorboats on Bowron Lake in cooperation with Coast Guard and inform motorboaters.
- Encourage school groups, communities and interested individuals to research the history of these parks to increase knowledge.
- Develop interpretive materials on how BC Parks is addressing insect infestations and fire management in the parks.
- Develop educational materials for wildlife viewing including ethics, especially when animals are vulnerable to stress or intrusion.
- Work with other agencies, organizations, and universities to develop partnerships to increase knowledge of heritage values.
- Establish a Committee that meets annually to discuss communication, information needs and management issues around Bowron Lake.
- Undertake a photo-inventory of all known structures in the parks and classify structures in the parks as Type A, B or C.
- Replace elevated bear caches with ground level, box style bear caches.
- Place bear caches at both ends of portage trails
- Encourage the use of new technology canoe carts using wide, low impact tires.
- Complete a survey addressing public perceptions of management issues on Bowron Lake.

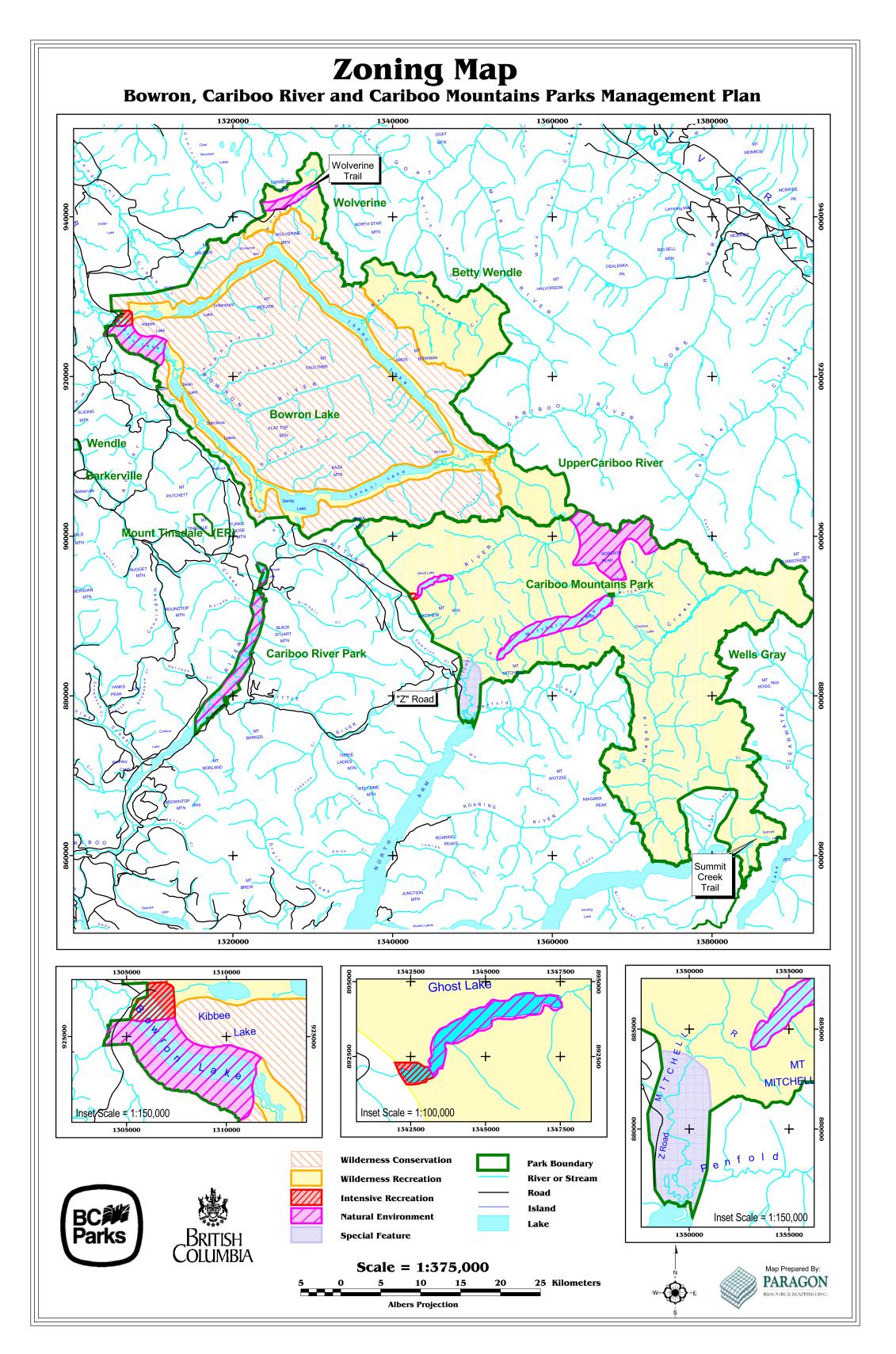
#### 7.3 Long Term (6 - 10 years)

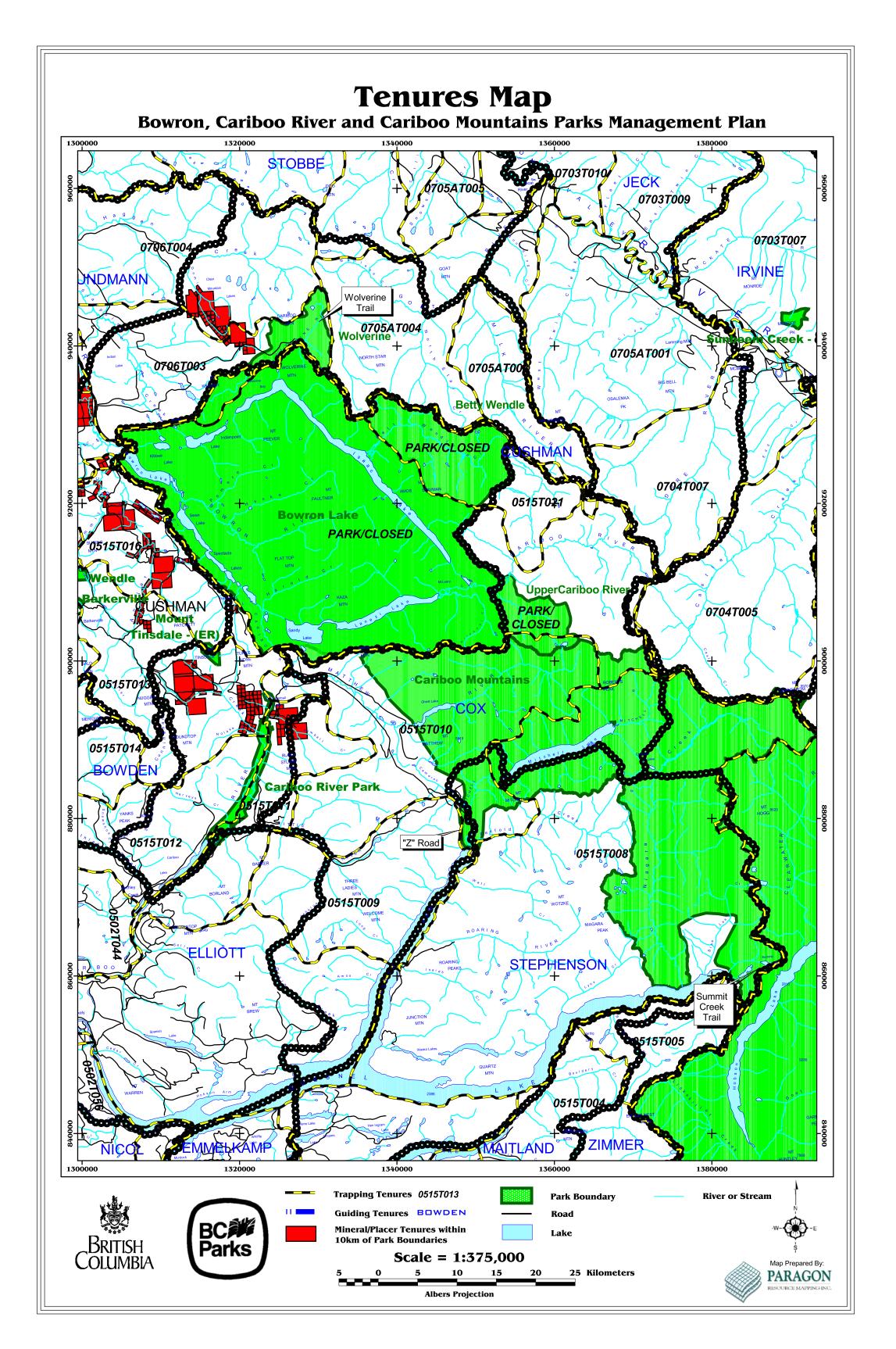
- Consider purchasing or entering into a private/public partnership for use of the private property at the outflow of the Bowron River and the beach at the tail of the lake to improve public access, use and enjoyment of Bowron Lake.
- Complete, in partnership with the BC Snowmobile Federation, local snowmobile clubs (Quesnel, McBride, Valemount, Wells) and other affected government agencies, a feasibility study on the snowmobile route through the Wolverine.
- Over the medium term or as demand warrants, upgrade the Ghost Lake campsite and install a boat launch.
- Over the medium to long term or as demand warrants, develop a day use area, boat launch and interpretive site at the bridge crossing the Cariboo River in Cariboo River Park.

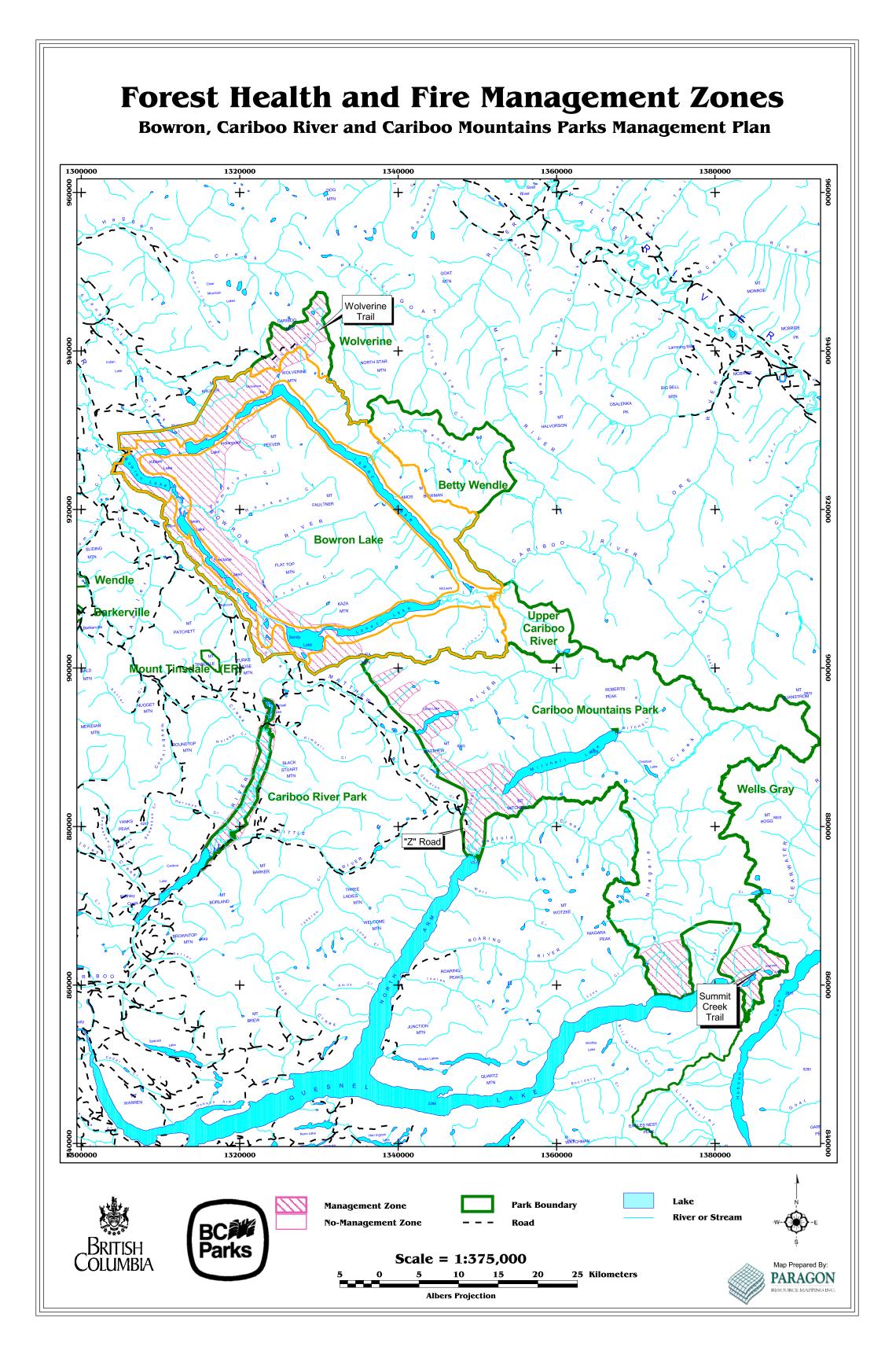
- Assess conditions and monitor the effects of horse use and regulate it as necessary. Trails may be closed during certain conditions (extended periods of rain, late thaws, etc.)\*
- Monitor impacts of recreational uses (hiking, horse use, mountain bikes etc) and undertake management actions if necessary.\*
- Monitor the perceptions and satisfaction levels of park visitors on a regular basis.
- Complete a Cultural Overview Assessment (COA) of Bowron Lake canoe circuit.
- Undertake forage assessments in frequently used areas
- Work with First Nations and museums, organizations and agencies (e.g. universities, Barkerville Historic Town) to develop interpretive materials.
- Work with First Nations to develop interpretive materials on First Nations' use of the area.
- Use ongoing Advisory Group mailing list as a way to update user groups on park management.
- Develop self-guided interpretive trails from the Bowron Lake Campground that provide information about the conservation and cultural heritage history of the area (see *Bowron Lake* section). Consider partnering with adjacent forest licensees to discuss forestry management on areas bounding the parks.
- Provide interpretive materials to inform visitors about the history of the public cabins in the park.

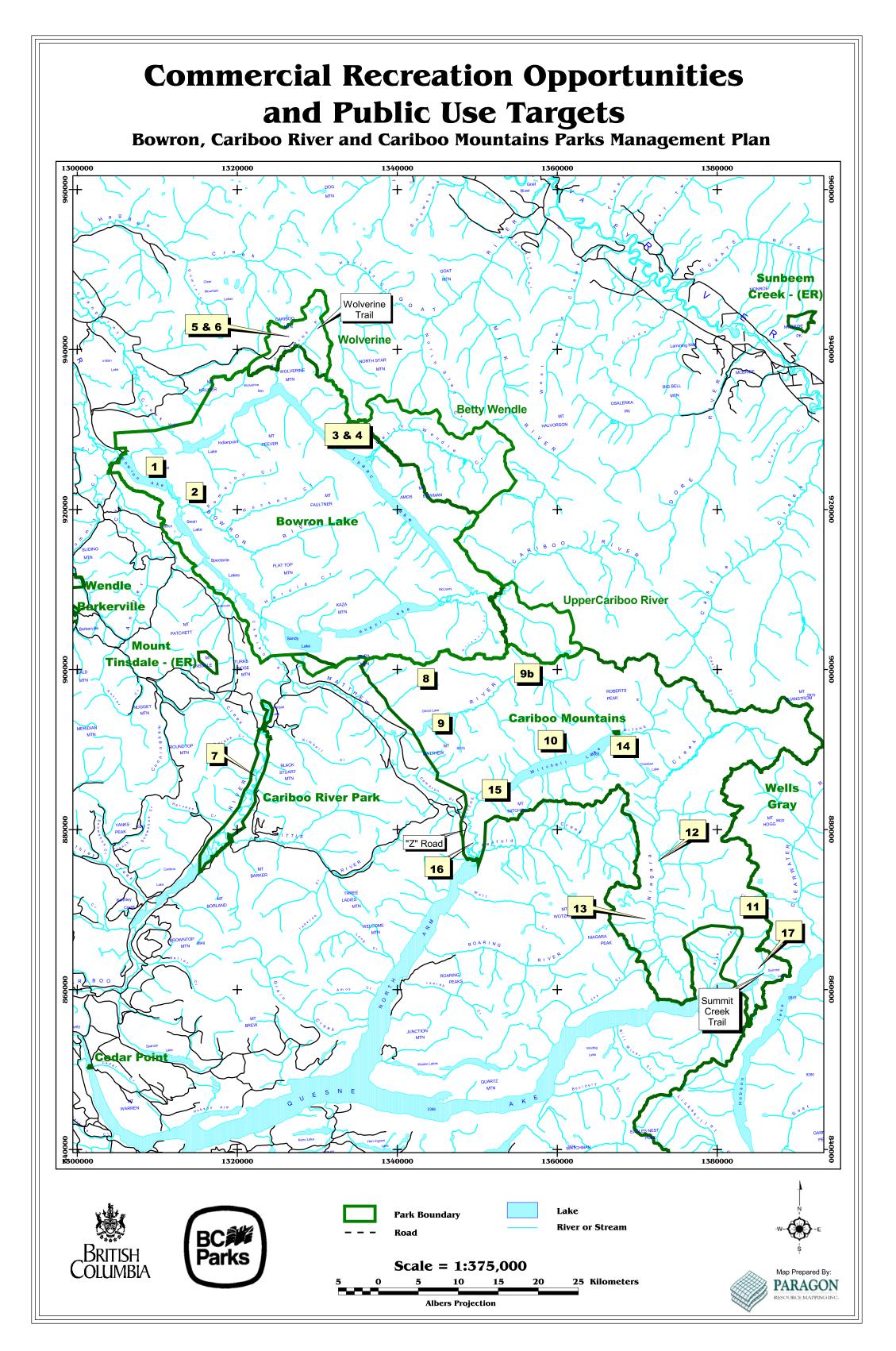
<sup>128</sup> **Keystone Species** – Species that have a crucial role in supporting the integrity of the entire ecosystem and that by their effective disappearance from the system result (directly or indirectly) in the virtual disappearance of other species (e.g. salmon). **Umbrella species** -A species whose habitat encompasses the habitat needed by a large number of other species. Grizzly bears, for example, can be viewed as an umbrella species because of their broad ecological niche.











### **List of Plates**

The cover photograph of the kayaker on the Upper Matthew River was taken by Don Olesiuk.

Chris Hamilton took all the photographs in the document with the exception of those noted in the plate captions or those underlined below.

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#### Appendix A: Commercial Recreation Opportunities and Public Use Targets

#### Introduction

The Cariboo-Chilcotin Land-Use Plan (*CCLUP*) led to the establishment of Cariboo Mountains and Cariboo River Parks. As part of its recommendations for parks, the *CCLUP* states that the parks should be "available in principle and where appropriate for commercial tourism . . .".

Growing interest in commercial recreation is one factor that prompted the development of this park management plan. Some communities adjacent to the park, and elsewhere in the province are increasingly interested in commercial recreation as a means to diversify local economies. Commercial recreation includes fee-for-service businesses that provide visitors with guiding, accommodation or transportation. It typically does not include rental or accommodation businesses operating outside the park.

In terms of effect and presence on the land, commercial recreation is usually similar to independent recreation. Guided groups of park visitors on foot, horseback, skis, or canoe are much the same as other groups. Public huts and commercial huts in parks have similar effects on the landscape. In consultation leading to the development of this plan, recreational groups indicated concern that commercial recreation should not significantly displace or limit opportunities for independent or non-commercial recreation.

With commercial recreation, as with recreation generally, BC Parks plans for and manages these uses with the goals of providing opportunities while protecting ecological integrity. Commercial recreation differs from other recreation in terms of how it is managed by BC Parks. To operate in parks, commercial recreation businesses require a Park Use Permit; an authorization under the *Park Act*. Evaluation, impact assessment and permitting can typically take several years, particularly in the absence of planning that addresses commercial recreation.

This appendix identifies commercial recreation opportunities that are consistent with the park management plan. The intent of this appendix is to streamline responses to applications for Park Use Permits, and potentially to enable BC Parks to actively promote certain business opportunities in the parks.

This appendix does not present a comprehensive assessment of commercial recreation opportunities in the parks. The commercial recreation activities and opportunities described here should be regarded as examples consistent with the park management plan.

### Commercial Recreation Opportunities and Public Use Targets Map

#### **Development and Use of this Appendix**

This appendix identifies 17 recreation activities/opportunities in the parks. The Non-Motorized and Motorized Task Groups that were involved in developing the management plan identified the majority of these activities. The groups used local knowledge of the areas to look at the capability of the areas to support the activities, appropriate levels of access, and areas where there were relatively few potential conflicts with natural values.

Each activity/opportunity identified has a number of descriptions. They include:

a) Area of Use.

This sets out an approximate extent of where the activity should take place. This area has been outlined on the accompanying *Commercial Recreation Opportunities and Public Use Targets* map. This is only an very approximate area, and it is expected this will be fine-tuned through a commercial operator's management plan and discussions with BC Parks.

b) Potential Uses

This sets out the broad category of uses that are considered acceptable in the area. Hiking, for example, could include mountaineering, walking, nature appreciation etc. Again, this is a broad class of uses, and can be modified based on a business plan or discussions between the potential operator and BC Parks.

c) Season of Use

The season of use is intended to address two issues. First, activities may be restricted by season to address key wildlife issues (i.e. caribou early winter use areas, calving grounds, spawning salmon/grizzly bear interactions, grizzly bears on blueberry patches etc). Second, this category sets out the broad season of use in order to calculate approximate user days. For example, ice freezes thick enough to ski/walk on around the Bowron Circuit approximately January 1, and thaws by late April, leaving a season of approximately 4 months or 120 potential days of use.

d) Number of parties/users per day

A user density target is a tool used quite commonly by fish, wildlife and park agencies to achieve "wilderness" conditions. For example, the Ministry of Water, Land and Air Protection calculates the desired density of anglers per kilometer of fishable river using a formula. The Dean River has a target of 2 people per kilometer, while the Horsefly River has a target of one person per kilometer of fishable water. Parks Canada permits 52 users on the West Coast Trail every day, with 26 departing from either end of the trail. BC Parks currently allows 54 canoes, staggered over the course of the day, on the Bowron Circuit. The Turner Lake Chain in Tweedsmuir Park has a calculated capacity of 40 persons over the entire chain of lakes.

BC Parks satisfaction surveys consistently show user satisfaction decreases dramatically after four encounters with other parties in a day.<sup>33</sup> This number is consistent with much of the research on wilderness experiences completed by the US Forest Service and the US National Park Service. Numbers of acceptable encounters vary by the activity and the expectations of users.<sup>34</sup> For the purposes of this appendix, several numbers have been used. They are deliberately conservative, as the public consultation process strongly suggested adopting the precautionary principle. The following numbers have been used as a guideline:

- i) 1-2 people per day in areas where there are possible wildlife concerns or where very few encounters with other people are deemed appropriate.
- ii) 3-4 people per day in areas where wildlife concerns are minimal and where wilderness expectation are lower.

<sup>&</sup>lt;sup>33</sup> 1995. BC Parks. Survey of Bowron Lake Canoe Circuit Users.

<sup>&</sup>lt;sup>34</sup> For example, 1.5 encounters a day on a wilderness river, 2.9 on a semi-wilderness river, 4.4 on a recreation river and 20 encounters per day for whitewater rafting.

iii) 5-6 people per day in road accessible areas or where few wildlife values exist.

The numbers 1 - 6 represent the range of acceptable encounters that have been outlined in the literature on carrying capacity.<sup>35</sup>

e) Total User Days

This represents a simple multiplication of desired density and user days. A density of 4 people per day, multiplied by 120 days = 480 user days over the season.

f) Public Commercial Split.

Given the user day "target" that has been identified, it is important to recognize that not all use is commercial. The 70% public and 30% commercial split is generally used by BC Parks and broadly accepted by user groups (e.g. BC Wildlife Federation). In some instances this split can be varied depending on levels of access or safety concerns. For example, allocations to commercial use could be increased to 40% or higher if access is only by airplane or if there are safety issues (i.e. grizzly bear viewing may require a trained guide equipped with safety equipment and having an approved evacuation plan). Alternately, in areas with high levels of public access or lower risk, commercial use could be 20% or lower.

g) Opportunities/Limitations/Special Considerations.

This section generally sets out potential limitations (e.g. caribou early winter range, grizzly bears and berries, avalanches) as well as opportunities (increased presence in winter, safety, education) and any special considerations that may apply (minimum party size in the case of activities in bear country, as the larger the party size the fewer attacks).

#### Limitations to the Method

As in any use of a quantitative measure to reach a qualitative goal, the numbers themselves are a "best guess", and should always be tested against the spirit and intent expressed in the body of the plan. As such, the numbers are a starting point for discussions around acceptable levels of public and commercial recreation and are subject to adaptive management. As this is an appendix to the management plan, these numbers have no formal standing and will be used by BC Parks staff as a point to begin discussions with interested operators and communities. They are not meant as either minimum levels of use or a cap, nor do they address commercial viability. Again, they should be considered a starting point for discussions.

In addition, the numbers have been derived from research on wilderness experiences and do not consider the "cumulative impact" of these levels of recreational use on wildlife, vegetation or water resources in the parks.

#### Implementation of the Appendix

This appendix has a number of uses. Firstly, by setting "targets" of public and commercial use, BC Parks can monitor levels of use to determine if use is higher or lower than anticipated. For example, trail counters may be installed along a key section of trail. If the target for use was 480 people a year and only 12 were counted, management can reflect these low levels of use (e.g. limited additional monitoring or

<sup>&</sup>lt;sup>35</sup> Stankey; LAC. Heberlein; Graefe, Vaske, Kuss, 1990. *Visitor Impact Management, A review of Research*. National Parks and Conservation Association, Washington DC. Etc etc

perhaps commercial use can be increased or an extra operator can be permitted). Similarly, if 594 people were counted, this might be an area where additional monitoring is required to determine if wildlife are being displaced, or if impacts on vegetation are occurring.

At the time of the writing of this plan, the supply of opportunities in the parks is larger than current demand. As such, BC Parks staff should work with other stakeholders (appropriate government ministries, communities such as Wells, Likely, McBride and Quesnel, Chambers of Commerce etc) to review the identified opportunities. At that time, a determination can be made to see if market demand exists for additional opportunities.

Once an opportunity is ready to offer to a public bidding process, BC Parks should publicly advertise the opportunity. Criteria for a successful application may include the proponents' safety plan, management plan, proposed activities, past experience and/or bonus bid to government. Preference to local operators can be considered if all other conditions are met.

#### **Opportunities**

While this appendix identifies a number of opportunities, creative operators may approach BC Parks with other ideas. While preference will be given to the identified opportunities, other ideas may be considered and will have to be consistent with the vision for the park and with other management direction contained in the plan. A small number of these opportunities are currently under permit (i.e. Bowron Lake canoe circuit).

(1)	Kibbee Lake / Bowron Lake (Winter)
Potential Uses	Snowshoeing, cross-country skiing
Season	January 1 - April 1
Number of Parties	5 people/ day
Total User Days	600
Public/Commercial Split	75/25
<b>Commercial User Days</b>	150 (30 trips at 4-6 users)
Other Considerations	• (+) Increased presence can monitor use and decrease vandalism;
	• (+) Potential for overnight use of Bowron River Cabin;
	• (-) Potential displacement of moose;
	• (-) Concerns regarding ice conditions on the Bowron River.

(2)	Bowron Lake Wetlands (Summer)
Potential Uses	Wildlife viewing
Season	June 1 – October 1
Number of Parties	10 trips per year @ 6 people /trip
Total User Days	60
Public/Commercial Split	100% Commercial

Commercial User Days	60
<b>Other Considerations</b>	No motorized access.
	• Code of Ethics to be developed and followed by commercial
	operators.

(3)	<b>Bowron Lake Chain of Lakes (Summer)</b>
Potential Uses	Canoe/Kayak Tours – Commercial
Season	April – October
Number of Parties	20 trips from July 1 – August 31. Others may be added outside this "core" period
Total User Days	
Public/Commercial Split	
<b>Commercial User Days</b>	
<b>Other Considerations</b>	Group campsites only to be used.
	• This use addressed in body of plan.
	Commercial use fully allocated.

(4)	Bowron Lake Chain of Lakes (Winter)
Potential Uses	Snowshoeing, dog sledding, ski touring
Season	January 1 – March 31.
Number of Parties	10 trips per year @ 6 people /trip
Total User Days	60
Public/Commercial Split	100% Commercial
Commercial User Days	60
Other Considerations	No motorized access.

(5)	Wolverine Corridor (Summer)
Potential Uses	Hiking or horse tours
Season	July1 – October 1
Number of Parties	Hiking – 7 people per day per trip
	Horse tours – 1 trip every 2 weeks @ 5 horses per trip
Total User Days	Hiking = $630$ (Task group reduced this number by 50% to account for the very poor and wet weather in the area, so figure of 315 is used.)
	Horse tours = 30 horses
Public/Commercial Split	Hiking = 80/20

	Horse tours = $50/50$
Commercial User Days	Hiking = 63
	Horse tours $= 15$
Other Considerations	• (+) Linkages from Robson Valley to the Cariboo;
	• (+) Interpretation of culture and history;
	<ul> <li>(+) Increased use of Bowron Lake Campground and Lodges/commercial facilities;</li> </ul>
	• (+) Linkages to National Hiking Trail;
	• (-) Wet and muddy trail, many river crossings; horses may have significant impact on wet trail;
	• (-) Potential impact of introduced weed species from horses;
	(-) Potential to displace wildlife.

(6)	Wolverine Corridor (Winter)
Potential Uses	Snowmobile tours, ski tours
Season	
Number of Parties	
Total User Days	
Public/Commercial Split	
Commercial User Days	
Other Considerations	• Numbers, season of use and other considerations subject to feasibility study.

(7)	Cariboo River (Summer)
Potential Uses	Drift boating, canoe/kayak, fishing, wildlife viewing
Season	May 15- October 1
Number of Parties	23 users per day (1.5 people per kilometer of river)
Total User Days	3,105
Public/Commercial Split	80/20
<b>Commercial User Days</b>	621
Other Considerations	<ul> <li>(+) Access into park from Cariboo River Bridge, egress from Forest Service Recreation site on Cariboo River;</li> <li>(-) Potential impacts to waterfowl from boat wake;</li> <li>(-) Visual impacts from harvesting adjacent to park;</li> </ul>
	<ul> <li>(-) No overnight use.</li> <li>Use numbers need to be refined based on specific values on river. 3,105 users would likely exceed ecological and social carrying capacity. Monitoring required to look at impacts of motorized use.</li> </ul>

(8)	North Ghost Lake (Summer)
Potential Uses	Hiking, mountaineering
Season	June 1 – October 1
Number of Parties	1 user per day
Total User Days	120
Public/Commercial Split	80/20
Commercial User Days	24
Other Considerations	Possible hiking from F-Road
	• (+) Good access into mountains and small alpine lakes
	• (-) Grizzly habitat, narrow valleys, limited vehicle access.

(9a)	Ghost Lake (Summer)
Potential Uses	Boating, wildlife viewing
Season	June 1 – October 1
Number of Parties	4 people per day
Total User Days	480
Public/Commercial Split	80/20
Commercial User Days	96
Other Considerations	<ul> <li>(+) Proposed boat launch and improved campsite;</li> <li>(+) Road accessible;</li> <li>(-) Limited shoreline for use on the lake;</li> <li>(-) Currently few facilities.</li> </ul>

(9b)	Ghost Lake/Upper Matthew River Valley (Summer)
Potential Uses	Boating, hiking, mountaineering, wildlife viewing
Season	July 1 – October 1
Number of Parties	3 people per day
Total User Days	270
Public/Commercial Split	60/40
Commercial User Days	108
Other Considerations	• Motorized access 7-8 kilometers up Matthew River;

(+) Good backcountry access via Matthew River;	
(-) Early season grizzly bear habitat on avalanche	slopes.

(10)	Upper Cariboo River/North Mitchell Alpine (Summer)
Potential Uses	Helicopter access hiking and mountaineering
Season	July 15- September 15
Number of Parties	1 helicopter trip per week (4 people per trip)
Total User Days	32 (4 people x 8 weeks)
Public/Commercial Split	100% Commercial
Commercial User Days	32
Other Considerations	• (+) These areas avoid summer habitat of most species;
	• (+) Spike camps may be permitted;
	• Potential alpine hut option (see polygon 11);
	• (-) Physical impacts on sensitive alpine ecosystems;
	• (-) Limited current knowledge of alpine species;
	• (-) Potential impacts of helicopter noise.

(11)	Twin Lakes Alpine
Potential Uses	• Fixed wing (float plane) summer hiking, mountaineering
	Helicopter access winter alpine hut
Season	• July 15- September 15 (summer)
	• Winter use to be determined
Number of Parties	1 trip (4 people per trip) a week
Total User Days	32
Public/Commercial Split	100% Commercial
Commercial User Days	32
Other Considerations	• (+) Easy access from Twin Lakes to surrounding alpine;
	• Possible spike camps;
	• (-) 2 BC Parks administrative jurisdictions
	• (-) Sensitive alpine ecosystems;
	• Feasibility and impact assessment required for any alpine huts constructed.

(12)	Mitchell Lake/Christian Lake/Niagara Creek (Summer)
Potential Uses	Hiking, kayaking/canoeing
Season	July 1- September 15
Number of Parties	1 trip per week (4-6 people per trip)
Total User Days	10 weeks x 6 people per trip = $60$ user days
Public/Commercial Split	50/50
<b>Commercial User Days</b>	30
Other Considerations	• (+) Fixed wing access to Christian or Mitchell Lake, hike out Niagara, pickup by Niagara Falls/Quesnel Lake;
	• (+) Possible loop trip by joining with (13);
	• (-) Grizzly habitat requires party size of at least 4;
	(-) Extensive wetlands mean tough travelling.

(13)	Christian/Niagara Alpine (Summer)
Potential Uses	Hiking/mountaineering
Season	July 15 – September 15
Number of Parties	1 trip per week (4-6 people per trip)
Total User Days	8 weeks x 6 people = $48$
Public/Commercial Split	50/50
<b>Commercial User Days</b>	24
Other Considerations	• (+) Fixed wing access to Christian Lake, hike out along west side of Niagara, pickup by Niagara Falls./Quesnel Lake;
	• (+) Possible loop trip by joining with (12);
	• (-) Some goat habitat along route.
	(-) Possible risk to alpine ecosystems.

(14)	Mitchell Lake		
Potential Uses	Angling and boating		
Season	May 15 – October 15		
Number of Parties	5 parties on lake per day, 3 per boat		
Total User Days	8 weeks x 5 parties people = 900 parties or 2700 people		
Public/Commercial Split	50/50		
<b>Commercial User Days</b>	450 parties		
Other Considerations	• (+) Float plane access to lake;		
	(-) Concerns about bull trout and rainbow trout populations.     Regulations may be changed to protect fish populations.		

(15)	Upper Mitchell River (below Mitchell Lake) (summer)	
Potential Uses	Angling/wildlife viewing	
Season	July 1 – September 31	
Number of Parties	8.8 people per day on total river. One person per kilometer on upper 3.8 km, 2 people per kilometer on lower river.	
Total User Days	Angler days = $8.8$ per day x 92 day fishing season = $810$ angler days - $81$ days for First Nations = $510$ public fishing days, 219 commercial angler days	
Public/Commercial Split	70/30	
Commercial User Days	239 angling days	
Other Considerations	<ul> <li>See Mitchell River recommendations in section 4.3</li> <li>Commercial wildlife viewing and angler days fully allocated for upper river.</li> <li>Public/commercial split reviewed in 2005.</li> </ul>	

(16)	Mitchell Wetlands (summer)	
Potential Uses	Wildlife viewing	
Season	May 15- October 1	
Number of Parties	4 people per day	
Total User Days	540	
Public/Commercial Split	80/20	
<b>Commercial User Days</b>	108	
Other Considerations	• (+) Excellent waterfowl, migratory bird loafing, nesting and feeding area;	
	• (+) Many other wildlife species present (moose, beaver, bears etc);	
	• (+) Good access from Quesnel Lake;	
	• (-) Potential impacts on nesting bird populations and other wildlife;	
	• Code of Ethics to be developed and followed by commercial operators.	

(17)	Quesnel Lake/Hobson Lake Trail (Summit Lake Trail)		
Potential Uses	Wildlife viewing (grizzly bears) and hiking		
Season	June 1 – October 1		
Number of Parties	4 people per day		
Total User Days	480		
Public/Commercial Split	50/50		
<b>Commercial User Days</b>	240		
Other Considerations	<ul> <li>(+) Trail links Wells Grey Park to Cariboo Mountains Park;</li> <li>(+) Spawning salmon population and some grizzly bear presence;</li> <li>(+) Close to lodge facility;</li> <li>(-) Trail is overgrown and not maintained;</li> <li>(-) Grizzly bear hazards to be explored prior to any permits for wildlife viewing considered.</li> </ul>		

# Appendix B: Protected Areas Strategy Goals and Guiding Principles Goals

### Goal 1: Representativeness

To protect viable examples of the natural diversity of the province that are representative of major terrestrial, marine and freshwater ecosystems, the characteristic habitats, hydrology and landforms, and the characteristic heritage values of each ecosection.

#### **Goal 2: Special Features**

To protect the special natural, cultural heritage and recreation features of the province, including rare and endangered species and critical habitats, outstanding or unique botanical, zoological, geological and paleontological features, outstanding or fragile cultural heritage features, and outstanding outdoor recreational features such as trails.

# **Guiding Principles**

- 1. The first priority in the use and management of protected areas is to protect their ecological viability and integrity.
- 2. Recreational activities, facilities, services and cultural heritage policies in protected area must be compatible with each area's objectives and the long-term protection of ecological viability and integrity, while enhancing the public's experience of the natural and cultural heritage of the province.

# **BC Parks Conservation Goals - Parks**

#### Goal 1 Representation

To contain viable representation of all the natural and cultural heritage diversities across the province to conserve sustainable ecological values.

#### **Goal 2** Special Features

To protect the special natural and cultural heritage features of British Columbia. These have been identified as physical, biological or cultural elements.

# **BC Parks Conservation Goals – Ecological Reserves**

#### **Goal 1** Representation

To preserve representative examples of British Columbia's natural ecosystems and perpetuate important genetic values.

#### **Goal 2** Special Features

- To protect rare and endangered plants and animals in their natural habitat.
- To preserve unique, rare or outstanding botanical, zoological or geological phenomena.

## Goal 3 Research and Education

To promote scientific research and educational uses associated with the natural environment.

# **BC Parks Recreation Goals**

## **Goal 1** Outdoor Recreation Holiday Destination Opportunities

To provide park attractions which serve as or improve key destinations for outdoor recreation holidays.

## **Goal 2** Tourism Travel Route Opportunities

To provide parks and services which enhance tourism travel routes.

## **Goal 3** Regional Recreation Opportunities

To ensure access to local outdoor recreation opportunities for all residents of this province.

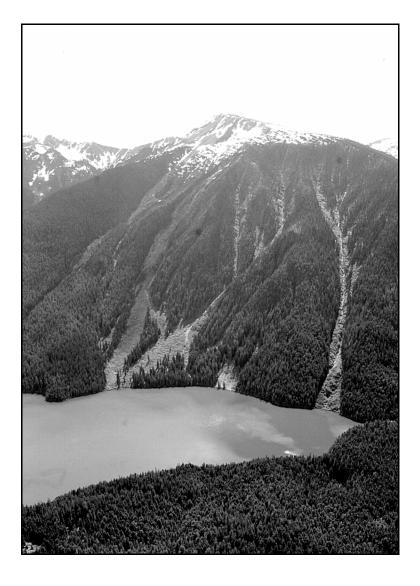
## **Goal 4 Backcountry Recreation Opportunities**

To provide outstanding backcountry recreation opportunities throughout the province.

# Appendix C BC Parks Management Planning Zoning Descriptions

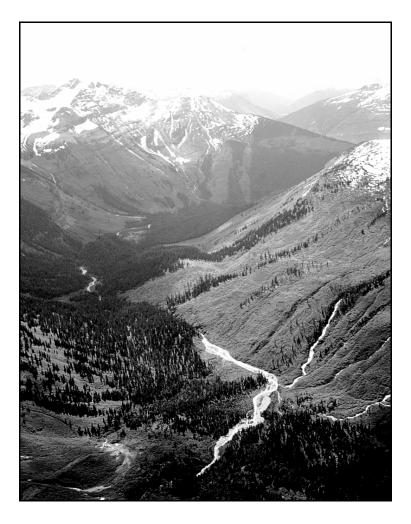
	Zone Descriptions Protected Areas Management Planning Zone Descriptions					
	Intensive Recreation	Natural Environment	Special Feature			
Objective	To provide for a variety of readily accessible, facility-oriented outdoor recreation opportunities.	To protect scenic values and to provide for backcountry recreation opportunities in a largely undisturbed natural environment.	To protect and present significant natural or cultural resources, features or processes because of their special character, fragility and heritage values.			
Use Level	Relatively high density and long duration types of use.	Relatively low use but higher levels in association with nodes of activity or access.	Generally low.			
Means of Access	All-weather public roads or other types of access where use levels are high (see "Impacts" below).	Motorised (powerboats, snowmobiles, all terrain vehicles), non-motorised (foot, horse, canoe, bicycles). Aircraft and motorboat access to drop-off and pickup points will be permitted.	Various; may require special access permit.			
Location	Contiguous with all-weather roads and covering immediate areas, modified landscapes or other high-use areas.	Removed from all-weather roads but easily accessible on a day-use basis. Accessible by mechanised means such as boat or plane.	Determined by location of special resources; may be surrounded by or next to any of the other zones.			
Size of Zone	Small - usually less than 2,000 ha.	Can range from small to large.	Small - usually less than 2000 hectares.			
Boundary Definition	Includes areas of high facility development in concentrated areas.	Boundaries should consider limits of activity/facility areas relative to ecosystem characteristics and features.	Area defined by biophysical characteristics or the nature and extent of cultural resources (adequate to afford protection).			
Recreation Opportunities	Vehicle camping, picnicking, beach activities, power-boating, canoeing, kayaking, strolling, bicycling, historic and nature appreciation, fishing, snowplay, downhill and cross-country skiing, snowshoeing, specialised activities.	Walk-in/boat-in camping, power- boating, hunting, canoeing, kayaking, backpacking, bicycling, historic and nature appreciation, fishing, cross- country skiing, snowmobiling, river rafting, horseback riding, heli-skiing, heli-hiking, and specialised activities.	Sightseeing, historic and nature appreciation. May be subject to temporary closures or permanently restricted access.			
Impacts on Natural Environment	Includes natural resource features and phenomena in a primarily natural state but where human presence may be readily visible both through the existence of recreation facilities and of people using the zone. Includes areas of high facility development with significant impact on concentrated areas.	Area where human presence on the land is not normally visible, facility development limited to relatively small areas. Facilities are visually compatible with natural setting.	None - resources to be maintained unimpaired.			
Facilities	May be intensely developed for user convenience. Campgrounds, landscaped picnic/play areas, trail accommodation or interpretive buildings, boat launches, administrative buildings, service compounds, gravel pits, disposal sites, wood lots; parking lots, etc.	Moderately developed for user convenience. Trails, walk-in/boat-in campsites, shelters, accommodation buildings may be permitted; facilities for motorised access - e.g., docks, landing strips, fuel storage, etc.	Interpretive facilities only - resources are to be protected.			

Plate 1: The dramatic landscape around Mitchell Lake in Cariboo Mountains Park.



BC Parks Photograph

Plate 2. Avalanche tracks at the headwaters of the Mitchell River in Cariboo Mountains Park provide excellent foraging areas for grizzly bears.



BC Parks Photograph

Plate 3. Looking south down Niagara Creek in Cariboo Mountains Park.



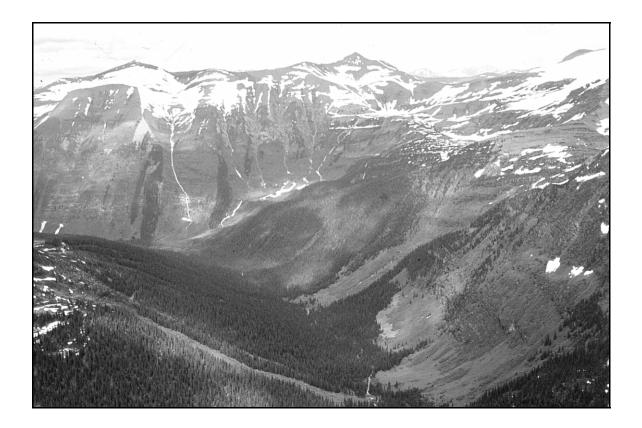
**BC Parks Photo** 

Plate 4: Looking east into the Betty Wendle drainage. Isaac Lake is in the foreground.



BC Parks Photograph

Plate 5. Looking northeast into the Cariboo River addition to Bowron Lake Park.



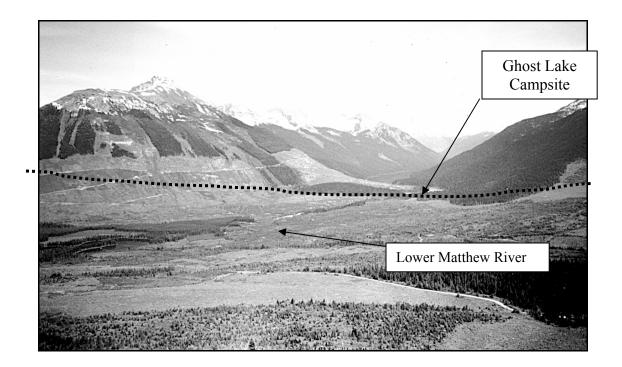
BC Parks Photograph

Plate 6: Looking northeast up the Wolverine Creek addition to Bowron Lake Park. The cutblocks were logged in the mid 1980s and are visible from the canoe circuit on Isaac Lake.



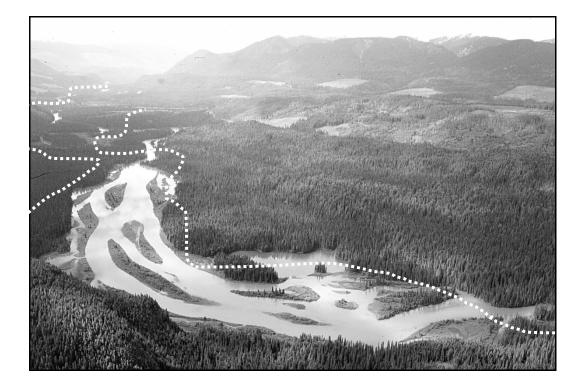
BC Parks Photograph

Plate 7: Looking northeast across the Matthew River Valley towards Ghost Lake. The approximate park boundary is indicated by the dotted line.



BC Parks Photograph

Plate 8: Looking south down Cariboo River Park. Kimball Lake is in the foreground. Approximate park boundary marked in dotted line.



BC Parks Photograph

Plate 9: Typical backcountry in Cariboo Mountains Park. This is the height of land separating Bowron Lake Park from Cariboo Mountains Park .



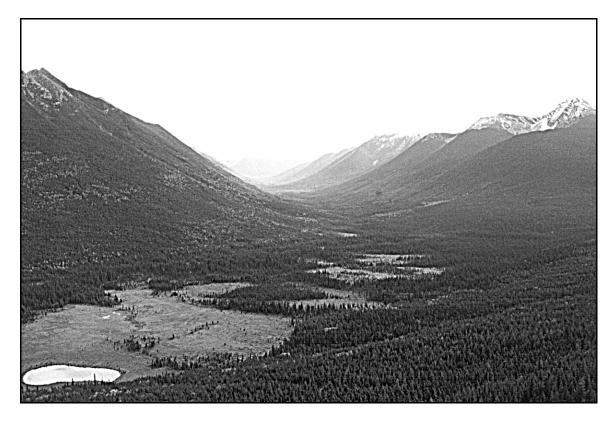
BC Parks Photograph

Plate 10: Canoeist preparing to enter Kibbee Lake after the first portage on the Bowron Lake canoe circuit.



Photograph courtesy of Peter Tasker

Plate 11: Looking east up to the headwaters of Bowron Lake Park. This is the heart of the Wilderness Conservation Zone.



BC Parks Photograph

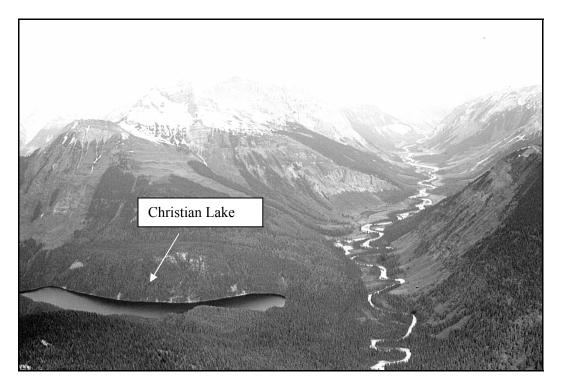
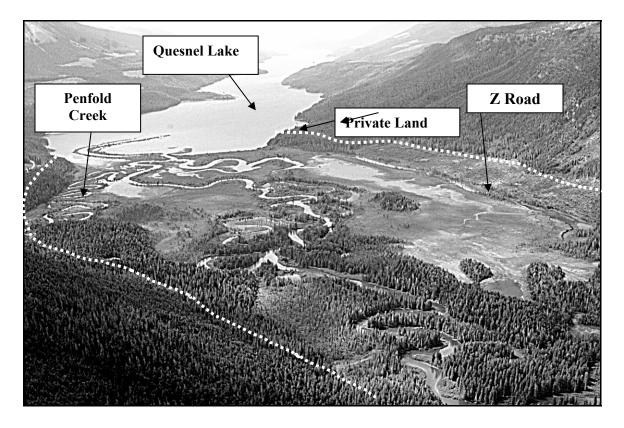


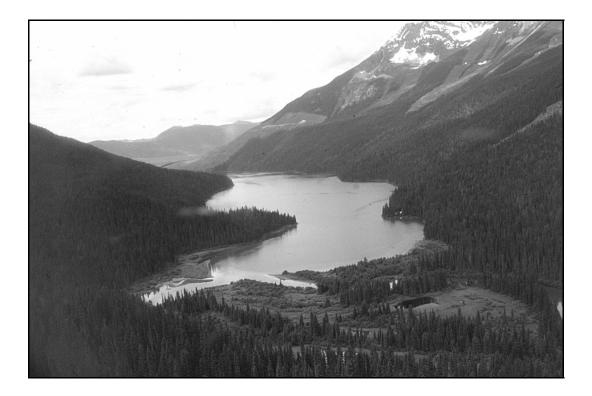
Plate 12: Looking east into the Upper Niagara Creek in the Wilderness Recreation Zone.

Plate 13: The Mitchell River wetlands are one of the most ecologically diverse areas in this block of parks. The approximate park boundary is indicated by the dotted line.



**BC Parks Photo** 

Plate 14: Looking west down Ghost Lake in the Natural Environment Zone. The campsite is located at the far end near the outflow of the Matthew River.



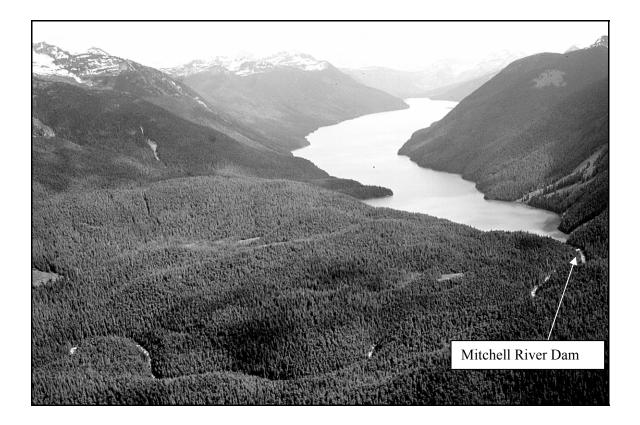
BC Parks Photograph

Plate 15: The newly constructed Bowron Lake campground and parking lot in 1973. This site was originally a hayfield. Today the trees are mature and most visitors would never know the site ever looked like this.



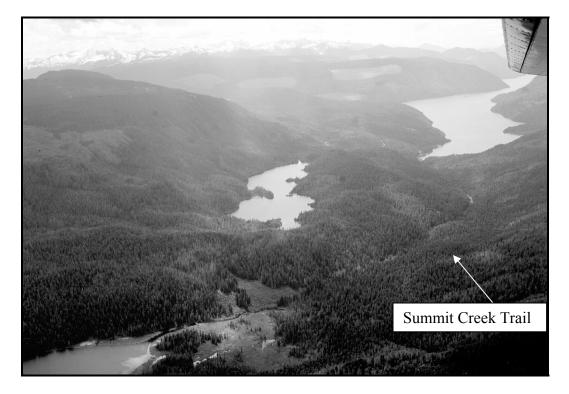
Photo courtesy of Peter Tasker

Plate 16: Looking east down Mitchell Lake. The Mitchell River is in the foreground. The dam, which is discussed in the text of the plan, is visible in the foreground.



BC Parks Photograph

Plate 17. Looking west over Summit and Stranger lakes at Quesnel Lake in the background. This area has seen high levels of activity by the Hemlock Looper, a defoliating caterpillar which targets cedar and hemlock trees.



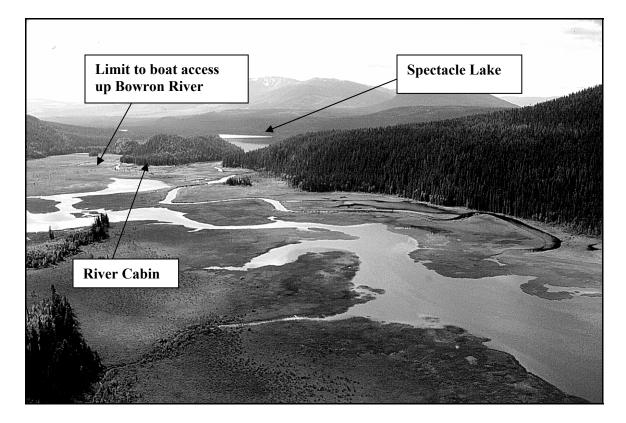
BC Parks Photograph



Plate 18: Cow moose feeding in the Bowron wetlands.

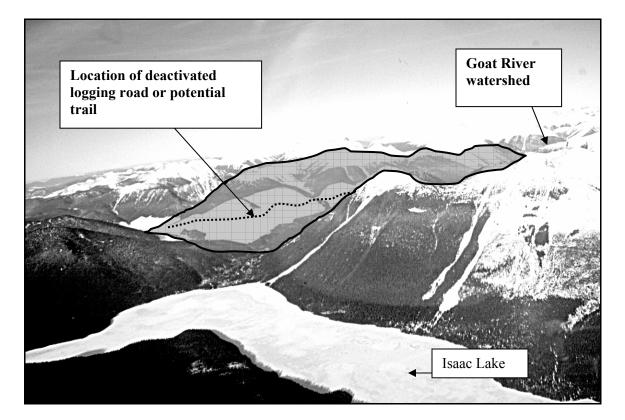
BC Parks Photo

Plate 19: Looking south into the Bowron River/Lake wetlands.



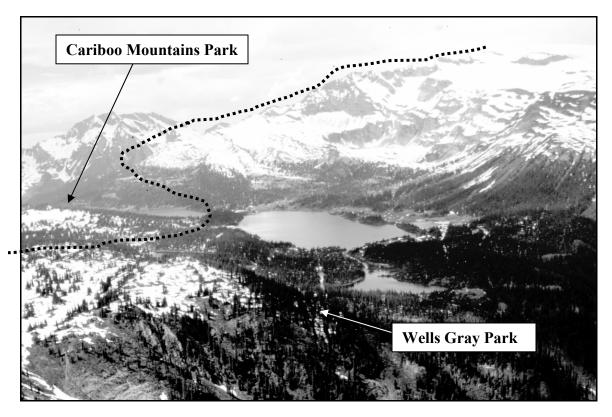
BC Parks Photograph

Plate 20: Looking northeast across Isaac Lake up the Wolverine Creek. The approximate location of the trail would be where the dotted line is. The approximate boundaries of the Wolverine addition are shown as grey shading. No access to the Bowron canoe circuit would be permitted from the trail.



BC Parks Photograph

Plate 21: Twin Lakes in the alpine of Cariboo Mountains Park and Wells Gray Park. The approximate boundary between the two parks is shown as a dotted line.



BC Parks Photograph

Plate 22. One of the old trapper cabins located on the Bowron canoe circuit which are heavily used in summer and seeing increasing use in winter. This one is located on McLeary Lake.



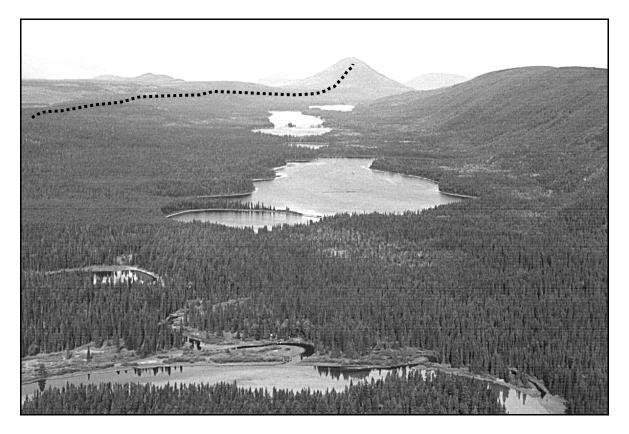
Photograph courtesy of Leif Grandell

Plate 23: Trails on the Bowron Circuit have been vastly improved from the knee high mud that existed in 1973. Some say this is good, others like the old ways!



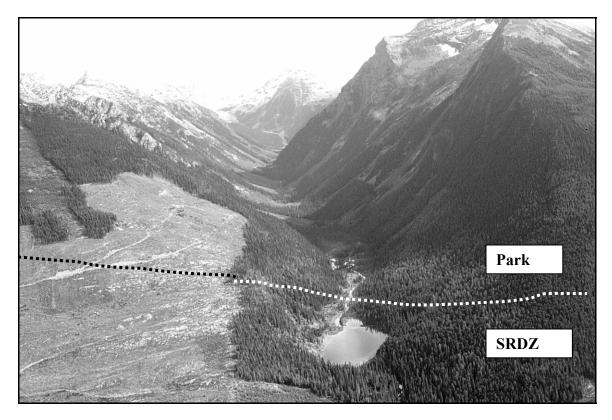
Photo courtesy of Peter Tasker

Plate 24: The west side of the Bowron Lake canoe circuit. Cariboo River in foreground, with Babcock, Skoi, Spectacle and Swan can be seen in the distance. Sugarloaf Mountain, at the end of Bowron Lake, can be seen in the background. Forest development can also be seen at the top left adjacent to the approximate park boundary, shown as a dotted line.



BC Parks Photograph

Plate 25: Another side valley draining into the Matthew River Valley. Approximate park boundary is shown by the dotted line. The lake in the foreground is popular among local fishers.



BC Parks Photograph