Mount Robson Provincial Park
Including Mount Terry Fox & Rearguard Falls Provincial Parks

DRAFT

BACKGROUND REPORT

September, 2006

Ministry of Environment
BC Parks
Omineca Region
This page left blank intentionally
Acknowledgements

This Draft Background Report for Mount Robson Provincial Park was prepared to support the 2006/07 Management Plan review. The report was prepared by consultant Juri Peepre for Gail Ross, Regional Planner, BC Parks, Omineca Region. Additional revisions and edits were performed by consultant Leaf Thunderstorm and Keith J. Baric, A/Regional Planner, Omineca Region. The report incorporates material from several previous studies and plans including the Mount Robson Ecosystem Management Plan, Berg Lake Corridor Plan, Forest Health Strategy for Mount Robson Provincial Park, Rare and the Endangered Plant Assessment of Mount Robson Provincial Park with Management Interpretations, the Robson Valley Land and Resource Management Plan, and the BC Parks website. Park use statistics were provided by Stuart Walsh, Rick Rockwell and Robin Draper.

Cover Photo: Berg Lake and the Berg Glacier (BC Parks).
# Table of Contents

## Park Overview

- Significance in the Protected Area System .......................................................... 1
  - Features of national and international significance ......................................... 2
  - Features of provincial, regional and local significance .................................... 2
- Conservation Role of Mount Robson Provincial Park ........................................ 4
- Recreation Role of Mount Robson Provincial Park ........................................... 6

## The Planning Process

- Mount Robson Provincial Park Swift Current River Addition .......................... 6

## Regional Context

- First Nations ........................................................................................................ 8
- Mount Terry Fox Provincial Park ................................................................. 8
- Rearguard Falls Provincial Park ........................................................................ 9
- The Robson Valley LRMP .......................................................... 9
  - Kinbasket Resource Management Zone ......................................................... 11
  - Valemount Community Watershed ............................................................... 12
  - Boundary/Horsey Creek RMZ ...................................................................... 13
  - Settlement/Agriculture RMZ ......................................................................... 14
- Jasper National Park ........................................................................................... 15
- Yellowhead National Historic Site ..................................................................... 15

## Natural Values of Mount Robson Provincial Park

- Climate .................................................................................................................. 18
- Physical Geography ............................................................................................... 19
- Geology .................................................................................................................. 20
  - Significant geological features ........................................................................ 20
  - Geomorphology ................................................................................................ 20
- Soils ......................................................................................................................... 21
- Water ...................................................................................................................... 21
- Vegetation .............................................................................................................. 22
  - Biogeoclimatic zones ....................................................................................... 22
  - Ecosystem Diversity ......................................................................................... 25
  - Vegetation Disturbance ................................................................................... 28
  - Special Vegetation Features ............................................................................ 31
- Wildlife and Wildlife Habitat .................................................................................. 31
  - Large Carnivores .............................................................................................. 32
  - Smaller carnivores ........................................................................................... 33
  - Ungulates .......................................................................................................... 33
  - Small mammals ................................................................................................ 38
  - Birds .................................................................................................................. 38
  - Amphibians and reptiles .................................................................................... 40
  - Fish .................................................................................................................... 40
- Ecology .................................................................................................................. 41
  - Greater Yellowhead Ecosystem ....................................................................... 41
  - Species at risk ................................................................................................. 45

## Cultural Values

- Archaeology .......................................................................................................... 48
- History .................................................................................................................... 48
  - First Nations History ....................................................................................... 49
  - Fur Trade and Exploration .............................................................................. 51
  - The Overlanders ............................................................................................... 52
  - Cheadle and Miltons Northwest Passage ........................................................ 52
  - The Railway Survey Era .................................................................................... 53
  - Early Climbers, Tourists and Settlements ....................................................... 53

---

*Mount Robson Provincial Park, Including Mount Terry Fox & Rearguard Falls Provincial Parks: DRAFT Background Report 2006*
Introduction

‘Yuh-hai-has-kun’ or 'The Mountain of the Spiral Road' was the name given Mount Robson by the Texqakallt nation, the area's earliest known inhabitants of the upper Fraser area. The Texqakallt name refers to the layered appearance of the huge mountain. Today, the park lies within the territories of the the Lheidli T’enneh and Shuswap (Simpc’w) First Nations.

For generations, the wonder and beauty of Mount Robson and its surrounding landscape has captured the imagination of those who have passed by or climbed the summit. In 1865, on their way through the Yellowhead Pass area, adventurers Milton and Cheadle wrote, "On every side the snowy heads of mighty hills crowded round, whilst, immediately behind us, a giant among giants, and immeasurably supreme, rose Robson's Peak."

Park Overview

Mount Robson Provincial Park lies in the northern Rocky Mountains on the Alberta-British Columbia border, next to Jasper National Park. Highway #16 and the Canadian National Railway enter the park at historic Yellowhead Pass and follow the Fraser River valley to the west.

In 1913, the British Columbia government created a 217,000 hectare (ha) park, the second provincial park in the province, to protect the mountains in the vicinity of Mount Robson for public enjoyment. In 2000, the 5,956 ha Swift Current area was added to Mount Robson Provincial Park, expanding the protected area to almost 223,000 ha.

Significance in the Protected Area System

Mount Robson, at 3,954 metres, is the highest peak in the Canadian Rockies. It rises dramatically from the valley bottom to an icy summit, towering above all other peaks. Referred to as "The Monarch of the Canadian Rockies", Mount Robson is the guardian of the park.

Mount Robson Provincial Park has long been recognized in the province for its important conservation and outdoor recreation role. Its establishment, just six years following the creation of Jasper National Park, was a natural extension to protected lands in the splendid central and southern ranges of the Canadian Rocky Mountains. Mount Robson Provincial Park is one of British Columbia's best known parks. Opportunities for outdoor recreation here are highly prized by people in the region, the province, Canada, and internationally.
Features of national and international significance

- Mount Robson Provincial Park is part of one of the largest mountain park complexes in the world, which includes Banff, Jasper, Yoho, Kootenay national parks, the Willmore Wilderness Park, Kakwa Wildland Park and Kakwa Provincial Park. This protected wild ecosystem, of which Mount Robson Provincial Park is an integral part, is internationally significant for its conservation and recreational values.

- In addition to protecting the largest peak in the Canadian Rockies, Mount Robson Provincial Park also protects the imposing Ramparts formation that shape a portion of the border with Jasper National Park.

- While big mountains and imposing rock formations inspire visitors, one of the main conservation features of the park are the headwaters of the Fraser River, one of the world's great rivers.

- Nationally significant cultural features protected in this park include prehistoric sites, travel routes of early explorers, and the historic railway route through Yellowhead Pass.

Features of provincial, regional and local significance

- Mount Robson Provincial Park protects between 60%-100% of three biogeoclimatic subzone variants within the provincial park system including: ESSFmm1, ESSFmm2 (Engleman Spruce-Subalpine Fir), ICHmm (Interior Cedar Hemlock), SBSdh1 (Subboreal Spruce). The park plays a key role in conserving these ecosystem types and the wildlife they support. At a provincial scale, the subzone variants ESSFmm2 and SBSdh2 are found exclusively in Mount Robson Provincial Park.

- The park also preserves the extensive alpine meadows of Resplendent Valley and Miette Pass.
Map 1: Inter-Provincial and World Heritage Site Context
Conservation Role of Mount Robson Provincial Park

Mount Robson Provincial Park is a key part of the B.C. Park system. Along with Jasper, Banff, Yoho and Kootenay national parks, Mount Robson, Hamber and Mount Assiniboine Provincial Park have been designated as the Canadian Rocky Mountains World Heritage Site by the United Nations Environmental, Scientific, and Cultural Organization (see Map 1). Mount Robson Provincial Park, including the recent Swift Current addition, is also part of the international trans-boundary Yellowstone to Yukon Conservation Initiative, set up to protect wildlife and their habitat along the spine of the continent.

Mount Robson Provincial Park, Jasper National Park and Willmore Wilderness Park in Alberta form a contiguous protected area at the heart of the Yellowhead ecosystem. Straddling the continental divide and covering an area of 68,000 km$^2$, this ecosystem extends west to McBride, British Columbia; east to Edson, Alberta; north to the Kakwa River headwaters in British Columbia; and south to the Kootenay Plains. A variety of federal, provincial and municipal agencies oversee resource protection, tourism, forestry, mining, oil and gas extraction, and energy development in the Yellowhead ecosystem.

The park provides full representation of the Northern Park Ranges Ecossection (see Map 2). With the exception of a small part of the Robson Valley, a complete cross-section of the Rocky Mountains is presented in Jasper National Park and Mount Robson Provincial Park. Within this cross-section, the park protects a complex mountain ecosystem represented by four biogeoclimatic zones. The park includes variants of the Interior Mountain Heather Alpine Zone (IMA), Englemann Spruce-Subalpine Fir (ESSF), Sub-Boreal Spruce (SBS), and Interior Cedar Hemlock (ICH) biogeoclimatic zones.
Map 2: Biogeoclimatic Zones
The Northern Park Ranges (NPR) ecosection is 32% protected provincially. Of seven protected areas in this ecosection, Mount Robson Provincial Park contributes over 96% of provincial representation. The recent Swift Current addition provides a small component of this. The Swift Current addition contributes representation for the following biogeoclimatic subzones and variants: SBS dh; ICH mm; and ESSF mm1. The ICHmm variant is under-represented in the protected area system, with just 2.97% protected. The Swift Current addition includes sensitive habitat for mountain goats, and winter range for ungulates (moose, deer, and elk), and summer range for bear species.

Recreation Role of Mount Robson Provincial Park
Mount Robson Provincial Park has an attractive variety of landscape features and recreation opportunities. It serves an important tourism role for travellers on the Yellowhead Highway, and is also a destination mountain wilderness park for visitors and regional residents. Mount Robson's recreation role is closely linked to its location next to the internationally known Banff and Jasper national parks. Mount Robson, the highest peak in the Rockies, is an enduring attraction as a climbing destination.

Outstanding backcountry adventures in the Canadian Rocky Mountains are available in the park, with relatively easy access provided by the highway. Such opportunities attract regional, national and international visitors.

People traveling on the Yellowhead Highway enjoy superb mountain scenery, roadside viewpoints and picnic stops, educational displays, wildlife viewing, short and long hiking trails, and camping opportunities. Mount Robson Provincial Park also contributes to local tourism businesses through these attractions.

The Planning Process
Overall goals and existing management objectives for the park are summarized in the Mount Robson Provincial Park Master Plan (1992). Two major objectives of the park master plan were the development of vegetation and wildlife management plans for the highway travel corridor. Since 1992, an Ecosystem Management Plan (2001) and Forest Health Strategy (2005) have been completed to address those two objectives. This background document provides a summary of information to support the review of the 1992 plan and prepare a new park management plan, scheduled for completion in 2007.

Mount Robson Provincial Park Swift Current River Addition
The Swift Current area, centered on the upper reach of the Swift Current River, was recommended for protection by the Robson Valley Land and Resource Management Plan (LRMP), approved in April 1999. While the middle section of Swift Current River was part of the 217,200 ha Mount Robson Provincial Park since its establishment in 1913,
5,956 ha were added to Mount Robson Provincial Park to protect most of the remainder of the Swift Current watershed.

The Mount Robson Provincial Park Management Plan (1992) identified the Swift Current Creek drainage as an area of concern. With only a small portion of the watershed occurring in the park, park management required on-going liaison with the Ministry of Forests and Range and industry to address recreation, wildlife and aesthetic concerns taking place outside of the park but within the watershed. The Swift Current addition now forms the western boundary of Mount Robson Provincial Park. Of this area, 14 ha are presently established as the Swift Current Protected Area by Order in Council under the Environment and Land Use Act to allow for the construction of a water line. Once the line is completed, the 14 ha will be converted back to provincial park.

The Purpose Statement and Zoning Plan provide interim direction for management of the Swift Current addition until such time as the Mount Robson Provincial Park Management Plan is reviewed. The Swift Current addition is also being proposed as an addition to the existing World Heritage Site designation for Mount Robson Provincial Park.

The primary role of the Swift Current area is to enhance the ecological viability of Mount Robson Provincial Park, and its role in representing the Northern Park Ranges EcoSection by creating a new boundary that usually follows primarily height-of-land within drainages.

The secondary role of the Swift Current addition is to enhance the role of Mount Robson Provincial Park in fulfilling BC Parks’ recreation goals for backcountry recreation and local recreation. Topography is moderately steep throughout this mountainous area with extremely steep cliffs around the headwaters of the Swift Current River. Recreation use is moderate at present, with the potential for future expansion. The Swift Current River area has been popular with local cross-country skiers for decades. Hiking and mountain climbing opportunities are also present. There is an existing tenure for commercial heli-skiing at Mount Longstaff. The Swift Current addition contributes towards the protection of viewscapes along Highway #16 for westbound travellers. Facilities are limited to an un-maintained hiking trail and an old trapper’s cabin 11 km up the river valley.
Regional Context

First Nations
The traditional territories of the Simpc’w First Nation (a division of the Shuswap Nation Tribal Council) and the Lheidli T’enneh Nation are within the Robson Valley area. Approximately half of the 613 Simpc’w people live on the Louis Creek Reserve just north of Barriere, B.C. The Lheidli T’enneh is a nation of approximately 350 people located on the central plateau of British Columbia.

Currently, the Lheidli T’enneh First Nations is entering into the final stages of treaty negotiations and a ‘Final Agreement is expected to be signed in 2007. The Simpc’w have chosen not to participate in the BC Treaty process; rather, they are negotiating separately with the governments of British Columbia and Canada.

Mount Terry Fox Provincial Park
Mount Terry Fox Park was established in memory of the runner who captured the hearts of people around the world with his attempt to run across Canada, raising funds for cancer research. The park is located adjacent to and west of Mount Robson Provincial Park, and just south of the Mount Robson viewpoint. The park encompasses an area of about 1,900 hectares, located above 1,500 m (above sea level) in the Selwyn Mountain Range. This range is the westernmost part of the Rocky Mountains, with Mount Terry Fox rising to an elevation of 2,651 m.

The natural values are similar to adjacent areas in Mount Robson Provincial Park, but Mount Terry Fox Provincial Park is part of the eastern slopes of the Rockies, not completely represented in Mount Robson Provincial Park. Landforms are typical of the eastern slopes, with a small glacier on the north side of Mount Terry Fox, and steep, V-shaped creek valleys. Three small alpine lakes, with small adjacent meadows form the headwaters of these creeks.

The lower elevations of the park lie in the Englemann Spruce-Subalpine Fir biogeoclimatic zone, with the larger upper reaches in Interior Mountain Heather Alpine. The park is important for wildlife, particularly goats that use south facing slopes for winter range.

The two viewpoints from which Mount Terry Fox is visible are not in the park, but the viewscape from these points is part of the park appreciation. Recreation features include the rugged rocky ridge forming Mount Terry Fox, and the small creeks, glaciers, and lakes nearby.
Rearguard Falls Provincial Park

Rearguard Falls is located on the Fraser River downstream from Mount Robson Provincial Park. The falls are adjacent to the Yellowhead Highway, providing accessible and pleasant viewing and a rest stop. The falls plunge over a five metre ledge set in a forested canyon. Few fish other than migrating Chinook salmon make it up over the falls, with the terminus for spawning salmon on the Fraser River occurring just upstream at Overlander Falls in Mount Robson Provincial Park.

The area is within the Sub-Boreal Spruce biogeoclimatic zone and supports young stands of mixed forest. The site protects a small portion of the Fraser River valley bottom at a lower elevation and further west than in Mount Robson Provincial Park. The site's conservation role is mainly to preserve a regionally significant scenic feature, yet it protects part of the east-west cross-section of the Rockies traversed by the Fraser River as well.

The Robson Valley LRMP

Note: This section has been adapted from the 1999 LRMP document.

The approved Robson Valley Land and Resource Management Plan (LRMP) provides broad direction for the sustainable use of Crown land and resources in the Robson Valley area. The plan developed through a local planning process and in consultation with various sectors, balances economic, ecological, spiritual, recreational and cultural interests. It supports greater land use certainty, preserves natural areas for future generations, maintains resource-sector jobs for local workers and increases opportunities for tourism and recreation.

The Robson Valley LRMP is being implemented by government agencies, and guides a variety of resource management programs and activities such as forest development planning. The plan area includes the 1.24 million ha Robson Valley timber supply area and the adjacent 222,000 ha Mount Robson and Mount Terry Fox provincial parks. About 4,000 people live in the area, which includes the major communities of McBride and Valemount. The traditional territories of two First Nation groups, the Simpc’w and the Lheidli T’enneh are in the planning area within and next to Mount Robson Provincial Park. Three other bands, the Williams Lake Band, the Canim Lake Band and the Red Bluff Band have expressed interest in the plan area.
Map 3: Resource Management Zones by Category and Area

For the full Robson Valley map folio and a larger scale version of this map go to:
http://ilmbwww.gov.bc.ca/ilmb/lup/lrmp/northern/robson/images/map01.jpg
The LRMP divides the plan area into 23 resource management zones (RMZs), which are categorized into one of six different categories. Some of the RMZs are classified further into subzones, which are: Settlement/Agriculture, Community Watersheds, Resource Development Emphasis, General Resource Management, Special Management and Protected Areas (ILMB 1999).

The conservation of one or more values such as habitat, recreation or scenery is a priority for these areas. Resource development activities are subject to more comprehensive resource conservation strategies. Ten areas are protected (4.73 percent of the planning area) in addition to the existing Mount Robson and Terry Fox provincial parks (15.25 percent). The plan includes 290,000 ha of protected areas in the Robson Valley area west of Mount Robson Provincial Park.

The specific Resource Management Zones adjacent to Mount Robson Provincial Park that will be considered during preparation of the park management plan are described below. For more detail on management direction and specific recommended actions, refer to the Robson Valley LRMP available on the BC Government website.

**Kinbasket Resource Management Zone**
The East Kinbasket Resource Management Zone covers the east side of Kinbasket Lake. The eastern boundary of this zone is the height of land along the Mount Robson Provincial Park boundary and a small part of the Jasper National Park boundary.

This RMZ has been subject to logging in the last three decades. Two licencees and the Ministry of Forests and Range, under the Small Business Forest Enterprise Program, have been active throughout most of the RMZ. Potential is indicated for industrial minerals (mica, kyanite and silica) in a band east of Kinbasket Lake from Yellowjacket Creek south to Mount Blackman.

The Kinbasket area offers a wide spectrum of recreational opportunities. Fishing is a primary attraction, with hunting and berry picking also being popular. Headwaters Outfitting operates a commercial hiking/ski touring business based out of a lodge in the headwaters of Dave Henry Creek. Robson Helimagic holds the tenure for commercial heliskiing in the northwestern portion of this zone, excluding the Dave Henry drainage. Non-commercial use of these areas also occurs, but it is usually in coordination with the operators. Seven potential commercial back-country recreation sites have been identified in this mountainous zone. These are located in the upper Yellowjacket drainage, the Mount Blackman alpine and five sites in the upper Hugh Allan drainage.

**Selwyn Range Subzone**
This subzone is a long band ranging from one to ten kilometres wide along the entire eastern boundary of Mount Robson Provincial Park and Jasper National Park. Concerns for visual quality, wildlife, wilderness, environmental values, access management and integrity of adjacent parks highlight this subzone. This resource management subzone allows for distinct management strategies for this area.
Kinbasket Management Intent: To manage as a Resource Development Emphasis RMZ while addressing special values in the Selwyn Range Subzone.

Examples of Selwyn Range Subzone Actions Stated in the LRMP Plan:

- Address visual quality concerns when resource development occurs.
- Manage resource development and other land use activities to minimize impacts on high scenery, wilderness and environmental values within this subzone and adjacent park areas.
- Address visual quality through choice of silvicultural system, block design and layout of patch retention where possible.
- Develop coordinated access management plan agreements between stakeholders.
- Exploration and mine development and other land uses that affect visual quality will recognize existing topography and ground conditions to reduce impact on visual values.
- Identify types of trails, levels of use and management of these trails where they cross over into adjacent parks.

Valemount Community Watershed
This watershed unit lies to the northeast of the Village of Valemount. It includes the entire drainage of Swift Creek, which provides domestic water to the village and surrounding area. The boundary starts north of the village and runs up the height of land to intersect Mount Terry Fox on the boundary of Mount Robson Provincial Park.

The watershed unit is steep and mountainous throughout. Much of the area is visually sensitive. Evidence of previous selective logging is found in the lower reaches of Swift Creek. Some areas within the zone have been allocated for future logging activities. There are forest health concerns in this management zone, especially bark beetle attack in pine and spruce.

There is potential for base or precious metals in the upper reaches of Swift Creek and the potential for industrial minerals (mica, kyanite, silica) near the main Fraser trench. Grazing licences are located near the west boundary and there are active trapping and guiding tenures. Fisheries values are high on Swift Creek mainly because of the large salmon run, which is also a tourist attraction at Highway #16 in Valemount.

Significant wildlife values are associated with the Swift Creek watershed unit, including goat habitat along the height of land between Swift and Crooked Creeks. The lower reaches provide winter range for ungulates and summer range for bear, with scattered populations of goats, caribou and bear in the upper watersheds.
This zone has significant recreational activity. Robson Helimagic has the heliskiing tenure for the area and offers both heliskiing and helihiking. There are two potential commercial back-country recreation sites noted for the upper reaches of Swift Creek. The McKirdy Meadows Cabin was constructed with the cooperation of the Yellowhead Outdoor Recreation Association (YORA) and the BC Forest Service. The intent of this cabin location is to provide shelter for hiking and ski touring enthusiasts. The public use cabin is accessed through the Swift Alpine viewpoint/picnic site above Valemount. Headwaters Outfitting maintains a small satellite camp in Swift Creek near the Mount Robson Provincial Park boundary.

**RMZ Category:** Special

**Management Intent:** Community Watersheds. Maintain natural levels of water quality, quantity and flow regime.

**Boundary/Horsey Creek RMZ**

This vast resource management zone contains mountainous terrain in the north-eastern portion of the Headwaters Forest District. The eastern boundary is Mount Robson Provincial Park, including the Swift Current Creek area. The boundary touches the border of Jasper National Park in the Mount Bess/Whiteshield area and then proceeds to run northwest along the border of Willmore Wilderness Park.

The zone has a diverse logging history. Forest health concerns have been relatively low. Mineral potential for base or precious metals has been noted in two areas of this zone. The first and largest area is in a broad band that crosses the headwaters of Nevin Creek, Holliday Creek, Horsey Creek, Small River and east to the Mount Robson Provincial Park boundary. The second area is on the north side of the Holmes River. The headwaters of Forgetmenot Creek has a gypsum occurrence of provincial significance.

The eastern portion of this RMZ is an active area for the Ministry of Forests and Range’s range tenure program. Grazing licences are issued in both the Small River and Horsey Creek drainages. Four different grazing permits are active: one in Nevin Creek; one in the upper end of the Holmes corridor; and two permits for horses in the Blueberry/Moosewallow Alpine. There are trapping and guide/outfitting tenures issued for all areas within this resource management zone.

The wildlife values in this zone are high. The entire southern part of this zone is a sensitive area for goats. The unique backcountry recreational opportunities are a focal point for this RMZ and the extensive alpine areas along the Alberta border are a popular attraction. The boundary area has had horse use dating back to the early 1900’s with survey parties, trappers, Alpine Club of Canada tours, and mountain climbing expeditions. This extensive alpine area is still attracting recreational horse users and commercial guide/outfitters from both sides of the Rocky Mountains. Access is from a variety of points such as the upper Chalco, Blueberry Trail, Bess Pass, Willmore
Wilderness Park and Jasper National Park. Extended hiking opportunities are available with numerous alpine lakes as destinations or focal points (Spirit Lake, Loren Lake, Blueberry Lake). The Mount Renshaw Alpine has become a regionally significant snowmobiling area with user numbers increasing annually.

The southern portion of this zone has considerably more rugged mountain terrain than the boundary area. Recreational activities include hiking and wildlife viewing, mountain climbing, caving, snowmobiling, sport fishing and hunting. The tenure for heliskiing is held by Robson Helimagic, but the Horsey/ Holliday/Nevin creeks portion is in a deferral, waiting for completion of a goat study.

**RMZ Category:** Special

*Management Intent:* Manage as a Special RMZ and ensure resource development and other land use activities minimize impacts on high scenery, recreation, wilderness and environmental values within this zone and adjacent park areas.

**Settlement/Agriculture RMZ**

The Settlement/Agriculture RMZ includes the valley floor, agricultural and settlement areas, as well as the major highway, railway and utility corridors. Visual quality is of the utmost importance within this heavily traveled corridor. Wildlife diversity and fisheries values are very significant within this RMZ.

Logging has been important in this area since the railroad was built in 1912-14. Mineral potential has been indicated for industrial minerals throughout most of the RMZ. The valley bottom contains a variety of dairy, beef and mixed agricultural operations. Streams and springs in both the Settlement/Agriculture and Rocky Mountain Trench zones are important water sources for hundreds of households and farms. The range tenure program is very active in the Settlement/Agriculture RMZ.

Recreation is important in this zone. A large number of popular trails provide access to the alpine. Berry and mushroom picking are common. This zone is an important staging area for a wide variety of front and backcountry tourism activities such as heliskiing, helihiking, horse packing and snowmobiling. Commercial heliski tenures have been issued in several areas. Crescent Spur Helicopter Holidays operates their lodge in Crescent Spur utilizing areas north of Goat River and East Twin Creek (Rider Mountain). Canadian Mountain Holidays, Valemount division, is tenured from Tete Creek south to Albreda. Robson Helimagic has tenure east of Small River to the Robson valley corridor and on the Selwyn slopes north of Valemount (a portion of their area is deferred because of goat studies). These companies also offer helihiking opportunities.

**RMZ Category:** Settlement/Agriculture

*Management Intent:* To manage as a Settlement/Agriculture RMZ and recognize sensitive wildlife and fisheries values.
Jasper National Park

The continental divide forms the boundary between Mount Robson Provincial Park and Jasper National Park (JNP) in Alberta. The Canada National Parks Act dedicates national parks “to the people of Canada for their benefit, education and enjoyment…to be maintained and made use of so as to leave them unimpaired for future generations.” (Jasper National Park Management Plan, 2000). Maintenance and restoration of ecological integrity are primary goals of national park management.  

The management plan for the national park places 97% of its land area lies in the Wilderness land use zone (Zone II in the national park system), in which the perpetuation of ecosystems with minimal human interference is the key consideration. Zone II areas offer opportunities for visitors to experience first hand the park’s ecosystems and call for few, if any, rudimentary services and facilities. In much of Zone II, visitors have the opportunity experience remoteness and solitude. Motorized access is not permitted. The Montane Ecoregion is a critical valley bottom zone that extends to the eastern gate of Mount Robson Provincial Park, where high ecological, wildlife and recreation values intersect with the transportation corridor and other human developments (Jasper National Park Management Plan 2005).

Parks Canada will continue to emphasize the importance of maintaining the integrity and critical ecological role of the montane areas. Actions will include research, restoration, human use management, and public education. Priority areas for grizzly bear management in Jasper National Park extend to the boundary of Mount Robson Provincial Park, generally south of the Highway #16 corridor.

The conservation and recreation values in Jasper National Park that affect the management of Mount Robson Provincial Park are ecosystem integrity, migrating wildlife, forest health and the proximity of destination recreation features in Jasper National Park. Wildlife, such as caribou, grizzly and black bear, moose, and elk migrate across park boundaries. The Tonquin Valley and Amethyst Lakes, next to the southern and most remote part of Mount Robson Provincial Park, are among the most heavily used areas in Jasper Park backcountry. Robson Pass, north of Berg Lake, is also a destination for many Jasper National Park users.

Yellowhead National Historic Site

Parks Canada has initiated discussions with the province of British Columbia to designate an area along the highway corridor, extending from Jasper National Park to the Fraser Crossing in Mount Robson Provincial Park, as the Yellowhead Pass National Historic Site. The site was originally designated a National Historic Site in 1971, and Parks Canada is currently developing a Commemorative Integrity Plan for the site.

---

For more information on national parks management, review the Jasper National Park Management Plan, provided at http://www.pc.gc.ca/pn-np/ab/jasper/plan/index_e.asp.
For centuries, Yellowhead Pass was an important travel corridor for aboriginal people who crossed the mountains on foot.

There are two reasons for the national significance of Yellowhead Pass National Historic Site, which are:

- During the period 1825 to 1925, the Yellowhead Pass played an important role in the First Nations and fur trade economy.
- The Yellowhead Pass was also important in the development of trans-Rocky Mountain transportation and commerce during this period.

The Historic Sites and Monuments Board would manage the abandoned Grand Trunk and CNA Railway beds as a Level 1 National Historic Site. The designation would apply to a 500 m wide corridor north of the railway and south of the highway, which would include:

- archaeological sites, including remnants of two World War II Japanese-Canadian internment camps;
- site-specific vestiges of early railway survey work or of the early 20th century railway lines and their construction,
- site-specific vestiges of early twentieth century resource industries which developed as a result of the coming of the railways, and,
- site-specific remnants of early twentieth century automobile road developments.
West entrance to Mount Robson Provincial Park on the Yellowhead Highway (G. Ross)

Fraser River at Moose Lake, showing the travel corridor and extensive riparian areas of Moose Marsh (G. Ross)
Natural Values of Mount Robson Provincial Park

Climate

Mount Robson Provincial Park has a continental climate, with wide seasonal temperature contrasts and severe winters. The regional climate is strongly influenced by the predominant westerly air flow that moderates this continental climate creating humid continental conditions.

The moist west slope of the Rockies is moderated by the rainshadow effect of mountain ranges to the west, especially the Premier Range. As a result, the Valemount to McBride portion of the Rocky Mountain Trench adjacent to Mount Robson Provincial Park is drier than areas to the north and south. This regional influence extends eastward into the park (Blood and Anweiler, 1990).

Short, cool summers are followed by long, cold winters, and snowfall is abundant in the valley. During the short peak recreation season of June through August, daytime temperatures hover at about 12-15 °C, predominated by showery, overcast days. Nevertheless, periods of high pressure often produce brilliantly sunny, hot weather adding to the grandeur of the park. Local people suggest the first two weeks of August are often best for outdoor pursuits. Autumn weather can also be pleasant. Reverend George M. Grant of Sir Sanford Fleming's 1872 expedition captured a romantic 19th century view of weather conditions near Mount Robson:

...the clouds that had been floating over the tops of the hills all day, and obscuring the lofty glacier on Robson's Peak, began to close in and empty themselves. Looking west down the valley of the Fraser the narrow pass suddenly filled with rolling billows of mist. On they came, curling over the rocky summits, rolling down to the forests, enveloping everything in their fleecy mantles. Out of them came great gusts of wind that nearly blew away our fires and tents; and after the gusts, the rain in smart showers. Once or twice the sun broke through, revealing the hill sides, all their autumn tints fresh and glistening after the rain, and the line of their summits near and bold against the sky; all, except Robson's Peak which showed its huge shoulders covered with masses of snow, but on whose high head clouds ever rested.

Selected climate data for the now inactive Robson Ranch climate station are given in Table 1. This climate station provided data in the park until 1992, but Environment Canada does not maintain a climate station in the park today. These data represent valley bottom sites in the highway corridor. Ministry of Environment data suggest that snowfall decreases eastward from Red Pass, and is lowest in the Yellowhead Lake area. Red Pass is considered a climate divide, separating heavier precipitation areas to the west from the eastern part of the Yellowhead corridor. On flat ground in valley bottom sites, snow depth in the Red Pass and Moose Marsh area normally exceeds one metre in late winter (Blood and Anweiler 1990).
When the factor of slope aspect is omitted, snow depth and duration increase with elevation. Variations in snow depth and duration associated with east-west rainshadow trends, aspect and elevation together strongly influence ungulate distribution and abundance in the highway corridor in winter (Blood and Anweiler, 1990). Slide-paths on steep slopes along the corridor indicate areas where snow avalanches are common.

Table 1. Climate Statistics for Robson Ranch Station*

<table>
<thead>
<tr>
<th>Temperature</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean annual:</td>
<td>2.8°C</td>
</tr>
<tr>
<td>Warmest month</td>
<td>15.2°C (July)</td>
</tr>
<tr>
<td>Coldest month:</td>
<td>12.6°C (January)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Precipitation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean annual:</td>
<td>630.3 mm</td>
</tr>
<tr>
<td>Mean annual snowfall:</td>
<td>234.8 mm</td>
</tr>
<tr>
<td>Driest month:</td>
<td>May</td>
</tr>
<tr>
<td>Wettest month:</td>
<td>December</td>
</tr>
</tbody>
</table>

* Note: this climate station was active until 1992; data shown is from the mid 1980s.

Physical Geography

Mount Robson Provincial Park lies entirely within the North Continental Ranges of the Canadian Rocky Mountains. Its area incorporates the headwaters of the Fraser River drainage basin, while the north boundary of the park forms a portion of the Continental Divide.

The park is bisected by the valley of the Fraser River, and this central valley has one large side valley, that of the Moose River, which flows into the Fraser River from the north. Elevation ranges from about 800 m above sea level, to the top of Mount Robson at almost 4000 m. Peaks lining the highway corridor, with the exception of Mount Robson, range between 2,500 m and 2,750 m.
Geology

**Significant geological features**
Underlain by sedimentary and metamorphic rocks of late Precambrian and Lower Paleozoic age, the Rocky Mountains in this region are mainly limestone, quartzite or related rocks, with some sandstones and shales. All strata are subjected to thrust faulting and gentle folding. Thick limestone and quartzite cliffs of Cambrian age form many of the mountains and gentle open folds lying between westerly dipping thrust faults. The flat to gently dipping beds, especially of the thick quartzite or limestone formations, produce impressive peaks, of which Mount Robson is an example (Holland 1976).

Of particular note in Mount Robson Provincial Park is Arctomys Cave, discovered in 1912, but not fully explored until 1971-72. This limestone solution cave is the deepest in the Rockies at more than 600 m, with a long series of steeply inclined tunnels and chambers, many with intricate formations. Chemical solutions erode the limestone into these distinctive caves and underground drainage systems. The cave lies in the steeply dipping Mural Formation, between sandstones and shales. An underground stream flows throughout most of its length (Thompson, 1975).

**Geomorphology**
The entire park area was heavily glaciated during the Pleistocene Epoch, about 11,000 years ago. Recent landforms have their origin in that glaciation (e.g., kettle ponds), followed by water erosion, and deposition and erosion of soft bedrock from steep slopes. Alpine glaciation and periglacial ('near-glacial', such as snowfield or permafrost) activity continue at high elevations.

The most obvious result of glaciation is the deep U-shaped valleys, as in the Fraser River for example, and the broad glacially eroded passes which cross the continental divide and other ranges. Mountains which protruded through the level of the Pleistocene ice sheets (those higher than about 2,500 m) were eroded and steepened by local cirque glaciation. Ridges and shoulders of mountains below this elevation are more subdued in their relief, having been overridden by ice. Valley bottoms and sides, on slopes less than about 25 degrees, are blanketed by glacial till. Steep rock slopes are subject to frequent rock-fall, and the fractured rock from such slopes forms extensive aprons of talus on many valley sides.

Water deposited materials, known as fluvial or glacio-fluvial deposits are found in the larger valleys such as the Fraser River. Modern alluvial deposits occur over a small area along rivers. The Fraser River valley has several deposits of sand and gravel resulting from glaciation. These deposits continue to provide basic material for highway construction and maintenance operations.

Some areas of organic terrain are present in association with wetlands, especially near Moose Lake. Elevations above 900 m are either morainal or colluvial blankets and
veneers. Much of the upper elevations of the park are covered by non-vegetated rock and ice.

Glaciers are found throughout the park, with the most notable in the vicinity of Mount Robson. The Robson Glacier and Robson Cirque cover a large area some six kilometres long. Berg Glacier calves into the lake creating small ice-bergs. The Reef Icefield lies next to the Robson Glacier and is visible from Snowbird Pass. Larger in size, but with gentler slopes, is the ice-field east of Mount Longstaff, at the headwaters of Swift Current Creek. Small cirque glaciers are abundant on north facing slopes throughout the park. The Jade and Icefall Lake areas in the southern end of the park are heavily glaciated with these smaller cirque glaciers. Terminal and lateral moraines are associated with many of these glaciers. Glaciers in Mount Robson Provincial Park and throughout the Rocky Mountains are receding. Evidence of retreating ice is most visible at the foot of Robson Glacier near Berg Lake.

Soils
Soils in the park are classified as dominantly Lithic, meaning that much of the area is bare rock, but that there is significant soil development. In Mount Robson Provincial Park, soils are of the Brunisolic and Podzolic Order. Brunisols tend to be coarse textured, such as sands and gravels that have undergone only moderate development from the original parent material. Parent materials in the park are often calcareous (originating from limestone). Humo-ferric Podzols in the park belong to the Podzolic Order and are characterized by accumulations of iron, aluminum and traces of organic matter in distinct upper layers, forming in cooler conditions than other Podzols (Valentine, Sprout et al, 1986).

Water
The upper Fraser River and its tributaries drain Mount Robson Provincial Park. These rivers flow freely, with excellent water quality. Major tributaries, both flowing north to south, are the Robson and Moose Rivers. The Fraser River has a fairly low gradient and is sinuous, especially between Moose Lake and Ghita Creek. Tributary streams, in contrast, are mostly turbulent and have straight courses. The annual May or June spring freshet, which accompanies the alpine/subalpine snowmelt, is the major hydrological event in the park.

Moose Lake, 11.5 km long and up to 2 km wide, is a major water body beside Highway #16. Yellowhead Lake, also on the valley floor, is about 4 km long and 0.5 km wide. Witney Lake, near Yellowhead Lake, and Portal Lake at Yellowhead Pass, are small but have high recreational value for fishing and shoreline walking. These lakes have rocky, moderately steep shorelines with little aquatic vegetation. All lakes are ice-covered in winter.
Attractive alpine and sub-alpine lakes showing a beautiful turquoise and blue colour, are found throughout the park. Jade and Icefall Lakes are the next largest, near the headwaters of the Fraser River.

The only significant wetland in the Fraser River corridor is Moose Marsh at the east end of Moose Lake, described in detail by Mol (1989). Wetlands accessible by highway are uncommon in the Rocky Mountain parks, and Moose Marsh stands out for this reason. Lush alpine meadows in the park thrive in moist, poorly drained sites above 1,500 m in elevation.

Vegetation

**Biogeoclimatic zones**

Within the Robson valley there are seven different biogeoclimatic zones. These zones, subzones, and variants are a useful way to classify park flora and help identify wildlife habitat. Biogeoclimatic zones have a unique combination of identifiable climatic patterns, soil types, and plant species. Biogeoclimatic zones are named after the dominant member of the mature plant community. Fires, elevation and aspect affect the species composition. In many areas an observer may not see the dominant species because the forest is in a transitional state. A biogeoclimatic subzone is defined as a geographical area supporting a distinct ecosystem within the zone. A biogeoclimatic variant is a subdivision of a subzone based on differences in climate other than what is typical for the subzone (Pojar et al. 1987). These climatic differences result in corresponding distinctions in vegetation and soil.

Four biogeoclimatic zones, the Interior Mountain Heather Alpine, Engelmann Spruce-Subalpine Fir, Interior Cedar-Hemlock and the Sub-Boreal Spruce zone occur in the study area. The Engelmann Spruce-Subalpine Fir Zone is represented by two subzones, one having two variants.

The following vegetation description is adapted from the Mount Robson Provincial Park Ecosystem Management Plan (2001):

**Sub-Boreal Spruce (SBS)**

The dry hot Sub-Boreal Spruce (SBSdh) subzone occurs throughout the main Fraser River valley of the park, below 1,350 m. Two variants of this subzone are found within the study area. The Sub-Boreal Spruce dry hot variant (SBSdh1) occurs over a small area in the western portion of the travel corridor. It is drier and warmer than the SBSdh2 variant within the park. Southerly aspects are Douglas-fir dominated with few trembling aspen.

The Sub-Boreal Spruce dry hot variant (SBSdh2) occurs throughout the main valley of the park east of the Interior Cedar-Hemlock zone. Southerly aspects commonly have trembling aspen in early successional stages, leading to Douglas-fir climax communities. In the SBSdh, the climax tree is hybrid white spruce, with Douglas-fir being a long-lived
seral tree. Other seral species include lodgepole pine and trembling aspen. Common
understory shrubs are birch-leaved spirea, prickly rose, thimbleberry and soopolallie.
Common herbs are bunchberry and twinflower. A moderate to dense moss cover occurs
in later successional stages.

Steep, dry, southerly aspects have climax forests of Douglas-fir with an understory of
saskatoon, soopolallie, Douglas maple and twinflower. Early successional stages may
have abundant trembling aspen. Moist, lower slope position sites have lush vegetation
trembling aspen, spruce, thimbleberry, red-osier dogwood, devil’s club, black twinberry,
bunchberry, oak fern and horsetails. There is an extensive area of wetlands east of Moose
Lake with a mosaic of shrub-fens, black spruce bogs and shallow open water
communities.

**Interior Cedar Hemlock (ICH)**
A small portion of the Robson River, Swift Current Creek and adjacent Fraser river
valley is occupied by the Interior Cedar-Hemlock moist mild variant (ICHmm). Climax
trees include western red cedar, western hemlock and subalpine fir. Common seral trees
are paper birch, trembling aspen, lodgepole pine and Douglas-fir. False azalea,
thimbleberry, red-osier dogwood, devil’s club and soopolallie are common understory
shrubs. Common herbs are bunchberry, oak fern and queen’s-cup. The moss layer is quite
dense in later successional stages. Douglas-fir dominated communities occur on southerly
aspects with an understory of saskatoon, soopolallie, Douglas maple and twinflower.
Trembling aspen may be common in early successional stages. In wet receiving sites,
western red cedar devil’s club communities may occur.

**Engelmann Spruce - Sub-alpine Fir (ESSF)**
The Engelmann Spruce-Subalpine Fir zone occurs below the Interior Mountain Heather
Alpine Zone and above the Sub-Boreal Spruce or Interior Cedar-Hemlock zones. The
subalpine zone occurs between approximately 1,350 m to 1,950 m. Most of the area is
dominated by mature coniferous forests over 140 years of age; however shrub-dominated
avalanche chutes are very common on steep sided valley walls. Subalpine meadows,
dominated by white mountain heather or forbs and sedges, are common at upper
elevations of this zone where continuous forests give way to parkland forests.

The ESSF subzone is characteristically forested and is represented by three variants
within the park. The Engelmann Spruce-Subalpine Fir moist mild variant (ESSFmm1)
occurs above the Interior Cedar-Hemlock zone in the Rocky Mountain Trench section of
the park. Understory vegetation is dominated by a shrub cover of false azalea, white-
flowered rhododendron and black huckleberry. The herb layer commonly has five-leaved
bramble, bunchberry and oak fern while the moss layer is usually well represented.
Forests consist of lodgepole pine, subalpine fir and Engelmann spruce. Whitebark pine is
common on southerly aspects. Douglas-fir may occur at lower elevations of this variant
on southerly aspects.

The Engelmann Spruce-Subalpine Fir moist mild variant (ESSFmm2) occurs throughout
the major valleys of Mount Robson Provincial Park, above the Sub-Boreal Spruce Zone.
Understory vegetation is dominated by a shrub cover of false azalea and Labrador tea. The herb layer commonly has bunchberry and dwarf blueberry while the moss layer is well represented. Forests consist of lodgepole pine, subalpine fir and Engelmann spruce. Black spruce is common in lower slope locations, indicating a cold air ponding boreal climatic influence from the east. Whitebark pine (upper elevations) and Douglas-fir (lower elevations) may occur in southerly aspects.

The Engelmann Spruce-Subalpine fir moist mild parkland (ESSFmmp) occurs just below the Interior Mountain Heather Alpine zone, and is composed of parkland or krummholz trees, usually subalpine fir or Engelmann spruce. The understory is dominated by meadows of mountain heathers or forbs and sedges. This subzone is subjected to an extended period of snow cover and a short growing season.

**Interior Mountain Heather Alpine Zone (IMA)**

The Interior Mountain Heather Alpine Zone occurs above the ESSFmmp, and generally begins at an altitude of 1800 m in the north. It has a mosaic of non-forested communities that reflect the interactive effects of wind and desiccating frost exposure, slope and aspect, soil conditions, and snow accumulations and length of melting. There is variation in precipitation in this zone, but it is considered to be relatively warm compared to the other alpine zones. The driest areas are dominated by lichens and sedges. Moist seepage areas with a late snow cover support rich shrub-forb and forb-graminoid communities with often impressive wildflower displays.

**Table 2. Summary of Biogeoclimatic (BEC) Zones in Mount Robson Provincial Park**

<table>
<thead>
<tr>
<th>BEC subzone/variant</th>
<th>BEC code</th>
<th>Area of Park (hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior Mountain Heather Alpine Zone</td>
<td>IMA un</td>
<td>66691.6</td>
</tr>
<tr>
<td>undifferentiated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>moist mild Engelmann Spruce-Subalpine Fir variant</td>
<td>ESSF mm1</td>
<td>36522.2</td>
</tr>
<tr>
<td>moist mild Engelmann Spruce-Subalpine Fir variant</td>
<td>ESSF mm2*</td>
<td>21582.3</td>
</tr>
<tr>
<td>moist mild Engelmann Spruce-Subalpine Fir parkland</td>
<td>ESSF mmp</td>
<td>73414.9</td>
</tr>
<tr>
<td>moist mild Interior Cedar Hemlock variant</td>
<td>ICH mm</td>
<td>5815.3</td>
</tr>
<tr>
<td>dry hot Sub-Boreal Spruce variant</td>
<td>SBS dh1</td>
<td>752.1</td>
</tr>
<tr>
<td>dry hot Sub-Boreal Spruce variant</td>
<td>SBS dh2*</td>
<td>17992.3</td>
</tr>
<tr>
<td>Water</td>
<td>WATER</td>
<td>2307.6</td>
</tr>
</tbody>
</table>

*Note that at a provincial scale, the subzone variants ESSFmm2 and SBSdh2 are found exclusively in Mount Robson Provincial Park.*
### Table 3. Summary of BEC Zones in Mount Terry Fox Provincial Park

<table>
<thead>
<tr>
<th>BEC subzone/variant</th>
<th>BEC code</th>
<th>Area of Park (hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior Mountain Heather Alpine Zone undifferentiated</td>
<td>IMA un</td>
<td>882.6</td>
</tr>
<tr>
<td>moist mild Engelmann Spruce-Subalpine Fir variant</td>
<td>ESSF mm1</td>
<td>291.1</td>
</tr>
<tr>
<td>moist mild Engelmann Spruce-Subalpine Fir variant</td>
<td>ESSF mm2</td>
<td>752.3</td>
</tr>
<tr>
<td>Water</td>
<td>WATER</td>
<td>4.7</td>
</tr>
</tbody>
</table>

### Table 4. Summary of BEC Zones in Rearguard Falls Provincial Park

<table>
<thead>
<tr>
<th>BEC subzone/variant</th>
<th>BEC code</th>
<th>Area of Park (hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>dry hot Sub-Boreal Spruce variant</td>
<td>SBS dh1</td>
<td>45.7</td>
</tr>
</tbody>
</table>

### Ecosystem Diversity

A primary conservation management objective for the park is the maintenance of natural ecosystem diversity and ecosystem processes. Vegetation diversity in Mount Robson Provincial Park consists of two main classifications as described in the Ecosystem Management Plan (2001) – forested and non-forested ecosystems. Forested ecosystems consist of dry, mesic, moist and floodplain forests, while non-forested ecosystems include wetlands, avalanche chutes, alpine and sub-alpine plant communities, and fluvial fans.

Key features of vegetation diversity in the park are:

**Forested Ecosystems**

- **Dry**
  - Dry forests are lodgepole pine-dominated ecosystems that develop on coarse glaciofluvial soils;
  - a second group of dry forests occurs on sites with a pronounced southerly aspect and relatively thin soils; early seral stages are dominated by trembling aspen which changes to Douglas-fir.

- **Mesic**
  - This accounts for about 42% of the forested area; sites in the group have submesic to mesic soil moisture regimes, and are found on level to steeply sloping morainal terrain;
  - in early seral stages forests often have a heavy western hemlock and western red cedar component, so that understory vegetation is poorly developed. In the late seral stages a dense moss carpet covers the forest floor, with scattered herbs such as bunchberry and oak fern, and a few false azalea shrubs.

---

2 Mesic; meaning having a balanced supply of moisture, usually found at mid-slope.
Moist
- The moist forest group covers about 20% of the forested area of the park. Moist forest sites are often highly productive due to subsoil seepage, or because of seasonal or permanent water tables within or near the rooting zone.
- This forest type has western red cedar and Englemann spruce in all seral stages, along with other indicators of moist soils, such as devil’s club, red-osier dogwood, oak fern, and highbush-cranberry.

Floodplain
- Floodplain forest ecosystems abut river and stream channels where landforms are created and destroyed by the flooding effects of the river. Although they represent only a small area of the park, these unique ecosystems are highly productive and support important wildlife habitat;
- Stands are usually dominated by Englemann spruce at relatively low stocking numbers. Because of the low tree stocking, a dense shrub layer is common and includes species such as willows, thimbleberry, Sitka alder, black twinberry and red-osier dogwood.

Non-Forested Ecosystems

Wetlands
- Wetlands cover 2,217 ha of the park, and are found in poorly drained areas along the Fraser River, and in smaller pockets in side drainages;
- drainage is impeded and a grass-sedge-shrub community develops;
- sedge fens are interspersed with areas of slightly better drainage occupied by low shrub communities dominated by willows and scrub birch.

Avalanche chutes
- The growth of trees is restricted by the persistent mechanical effects of repeated, annual snow avalanching. Rich shrub-herb communities include Sitka alder, thimbleberry, western meadowrue, Canada violet and cow parsnip. A meadow community with grasses such as blue wild rye occurs with fireweed cow parsnip, stinging nettle and sedges often develop at the toe of the avalanche.

Alpine and sub-alpine plant communities
- As elevation increases, climate becomes colder and more severe, and, under these conditions, tree growth is no longer possible and forests are replaced by a range of alpine plant communities. The distribution of alpine communities is the result of the variation in soil moisture and soil nutrient conditions brought about by the interaction of physical factors and the adaptive abilities of the plants available to colonize the sites.
Fluvial Fans

- Develop as upstream sediment is transported downstream and deposited from braided channels of moving water into an area with standing water. The fan shaped deltas are made up of coarse soils and have a minimal amount of subsoil seepage effect.
- Communities are characterized by a shrub-herb cover of yellow mountain avens and northern hedysarum.

Map 4: Resource Management Zones (Ecosystem Management Plan)
Other Ecosystems

- Emergent wetlands dominated by small flowered bulrush and cattail occupy shallow lakeshore areas, and aquatic macrophyte species such as yellow water lily, water milfoil, and several species of pondweed, are often rooted in the substrate within the water column. As water depth increases emergent vegetation disappears and aquatic macrophytes occupy the lake bottom until substrate or water depth and turbidity become limiting.

- Aquatic vegetation communities make important contributions to organic matter and energy capture for food chains within lakes in the park. Similar ecosystems occur adjacent to the slowest moving areas of rivers in the park, and in conjunction with semi-aquatic wetlands. The lakes and rivers in the park also support productive phytoplankton populations that contribute significantly to energy capture and nutrient cycling in freshwater ecosystems.

Vegetation Disturbance

The most common natural agents of disturbance in the park have been fire, insect outbreaks, windthrow, snow and debris avalanching, fungal attack and erosion on alluvial flood plains. More recently, human-induced disturbance associated with land clearing and right-of-way development is also prevalent, especially along the highway corridor. Disturbance events and the forest successions that have resulted have created a diversity of stand structures and species compositions across the forest landscapes of the park.

Of all the disturbance effects, the potential impacts of fire and insect outbreaks are clearly the most important for management.

Fire History

During the construction of the railway line through the park in 1913-1915 much of the travel corridor was burned. This, coupled with successful forest fire suppression since the 1940’s, has produced large stands of even-aged forests that are slowly maturing. The resultant uniform age-class distribution is not considered representative of pre-historic composition and structure of the forests within the park. Prior to large scale European arrival and associated works, these forests within these Sub-Boreal ecosystems contained much larger areas of early seral forests.

Prior to 1950, no records of fires were kept for the park. Fire history prior to this time is based on observations made in the field and from local historical records. The Ministry of Forests and Range fire reporting system used since 1950 shows that the number of fires has ranged from 0-11 per year. The average number of fires per year arranged by decade are as follows: 1950-1959, 2.7; 1960-1969, 1.3; 1970-1979, 1.5; and 1980-1989, 1.4. The most significant fire year in recent history was 1958, when a total of 11 fires were reported for the park.
The total number of fires between 1950 and 1994 in the park by size class and cause (lightning and human-caused) was 74, of which 68% were the result of human causes. The remaining 32% of fire ignitions were lightning caused. Of all the fires that burned between 1950 and 1994, 93% were smaller than 4 ha, while only 3% were greater than 40 ha. The largest fire within the park since 1950 occurred in July of 1955, and was 202 ha in size.

Moose River wildfire in 1998. The total number of fires in the park between 1950 and 1994 was 74.

Revegetation (photo taken in 2000) in the Moose River wildfire area (G. Ross)
Mountain Pine Beetle (MPB)
The mountain pine beetle, \textit{(Dendroctonus ponderosa)} is responsible for much of the mortality of mature lodgepole pine in western Canada and the northwest United States. Other species such as western white pine, whitebark and ponderosa pine are also highly susceptible.

Since 1997, mountain pine beetle has been active in the Swift Current drainage along the western boundary of the park. Over the past three years, this infestation has increased significantly in size, and spread along the Yellowhead highway corridor east beyond Moose Lake. Localized incidence of the beetle has been identified as far east as Jasper National Park. The adjacent Ministry of Forest Districts, Revelstoke Forest District and Kootenay National Park have all experienced MPB outbreaks that killed millions of trees over several thousand hectares.

Infestations by the MPB tend to result in large or clumped areas of dead trees. When populations are low however, single trees may repel beetles and survive. In epidemic conditions, the brown colour of most trees following an outbreak can have a visual impact on park aesthetics for the first two years following the attack. The visual attraction and visitor satisfaction with the exceptional viewscapes along Highway #16 will be significantly affected for a couple of years following the attack.

Excessive amounts of falling dead trees can pose a hazard and limit access opportunities for wildlife and park visitors alike. Some recreational and wildlife viewing opportunities along park trails would likely be hindered up to 15 years after the MPB attack. The excessive contribution of fallen trees and other smaller debris which litter the forest floor may also present a significant fire hazard. In addition to increased fire hazard and reduced park visitor satisfaction, a significant impact from MPB infestations is the threat posed to the lodgepole forests in land adjacent to the park.

Spruce Beetle
The spruce beetle (SB), \textit{(Dendroctonus rufipennis)}, is endemic to the spruce forests of North America, attacking all native species of spruce. In northern British Columbia, white spruce \textit{(Picea glauca)}, Engelmann spruce \textit{(Picea engelmannii)}, and their hybrids are preferred hosts (Safranyik 1988). Spruce beetles are a major ecological force in spruce forests, comparable to wildfire (Veblen et al. 1991). Similar to the MPB, the SB is capable of causing extensive tree mortality over large areas. Three major spruce beetle epidemics have occurred in the Prince George Forest Region of British Columbia within the last 30 years, killing over 20 million m$^3$ of mature spruce (Humphries 1993).

The results of the Ecosystem Management Plan (2001) analysis indicated that the great majority of spruce in the park lies within the lower hazard classes. This preliminary analysis indicates that spruce beetle is likely not a major threat at this time.
Special Vegetation Features
Mount Robson Provincial Park is host to numerous special plant communities and features. The wildflower meadows of Campion Ridge and Resplendent Valley are well known and provincially significant. Park visitors also appreciate alpine meadows in most of the mountain passes, in alpine cirques and on Emerald and Alpland ridges.

Some of the oldest Whitebark Pines, \((\text{Pinus albicaulis})\), in Canada are found in the Giekie Creek area of the park, near Bennington Glacier (Luckman and Colenutt 1988). These 800 year old specimens have survived by being located on ideal growing sites, out of avalanche range.

The Berg Lake trail gains almost 800 metres in 23 kilometres, traversing three biogeoclimatic zones. The lush Interior Cedar-Hemlock forest gives way to the sub-alpine species found at Berg Lake. It is unusual to be able to witness this transition so clearly along a short trail route.

The Mount Robson Ecosystem Management Plan (2001) recommended an assessment of vascular plants at risk within the park. Bio-Geo Dynamics Ltd. completed the assessment, which determined that there are at least eight vascular plant species at risk found within the park boundary. These species are Canada anemone \((\text{Anemone canadensis})\), boreal moonwort \((\text{Botrychium boreale})\), gray leaved draba \((\text{Draba cinerea})\), purple-leaved willow herb \((\text{Epilobium ciliatum ssp. Watsonii})\), hornemanns willow herb \((\text{Epilobium hornemannii ssp. Behringianum})\), wooly daisy \((\text{Erigeron lanatus})\), three-lobed daisy \((\text{Erigeron trifidus})\), and meadow willow \((\text{Salix petiolaris})\). Samples of \(B.\ boreale\) and \(S.\ petiolaris\) were collected during current field visits, pressed, and delivered to the B.C. Conservation Data Centre in Victoria, B.C (Simonar and Bernier 2000).

Wildlife and Wildlife Habitat

Wildlife depend on specific habitat, which is linked to the biogeoclimatic zones outlined in the vegetation description above. Flora and fauna are best thought of together, as part of an ecosystem. In the park, the critical habitats for wildlife are those used during the winter months. These areas are particularly important during years of heavy snowfall, when animals are driven to lower elevations along the highway corridor seeking areas of lower snow accumulation. Key wintering areas provide animals with the food, security and thermal cover they need to survive. The transportation routes along the highway corridor have a major impact on wildlife year-round. Open slopes along the transportation corridor provide good foraging habitat for ungulates and bears, creating potentially dangerous situations for wildlife and humans.

In the past few years highway wildlife mortality has decreased though the improved habitat up the Moose River, resulting from the prescribed and natural burns and the
installation of Swareflex\textsuperscript{3} reflectors along the highway.

The species composition of vertebrate fauna in Mount Robson Provincial Park is well known, but population sizes, seasonal movements and habitat relationships are less well documented for smaller species. To date, 42 species of mammals, 182 species of birds, 4 species of amphibians, and 1 reptile species have been recorded in the park.

The many landforms found within Mount Robson Provincial Park provide a wide range of habitats for wildlife populations associated with the western slopes of the Rocky Mountains. The fauna is typical of the western, relatively moist slope of the Rocky Mountains. Species composition and population density is probably more similar to Yoho National Park, 240 km to the south on the west slope of the Rockies, than it is to Jasper National Park, which is immediately adjacent on the east slope. The bulk of resident species are adapted to coniferous forest habitats of one kind or another (Blood and Anweiler 1990).

Hunting for most game species ceased in 1978, while only moose and deer continued to be hunted until 1988.

Species descriptions below are adapted from the Ecosystem Management Plan (2001) and Blood and Anweiler (1990).

\textbf{Large Carnivores}

\textit{Grizzly bears and black bears}\textsuperscript{4}

Grizzly bear and black bear habitats were assessed in 1989, with respect to potential conflicts with recreation, trail and campsites locations (McCory and Mallum 1989). The study examined seasonal habitat for bears based on their food sources. In 1990, various trails and campsites were improved to avoid bear-human conflicts. In the spring, after den emergence, grizzly bears feed on roots and corms, with both bear species feeding on green plants. In summer, green vegetation and early berries, such as huckleberry and buffaloberry, are eaten, with grizzly bears also seeking roots and corms at higher elevations, along with the ground squirrels. Occasionally, they prey on elk or moose calves, and may also eat deer fawns (Ministry of Environment -WLAP 2002). From September to October, berries are preferred, with grizzly bears also digging for roots and corms. Spawning salmon to the west of the park are eaten seasonally.

\textbf{Wolves}

Gray wolves range throughout the Yellowhead ecosystem, preying on moose, caribou, deer and elk. Wolf predation was found to be the major cause of adult caribou mortality in Jasper National Park and is most likely the major cause of caribou mortality in Mount Robson Provincial Park as well.

\textsuperscript{3} Wildlife warning reflectors installed along roads for the purpose of decreasing collisions between vehicles and wildlife at night (Road Management Journal 1997).

\textsuperscript{4} Grizzly and black bears are classified as carnivores; however, their normal diet consists of plants as well as animals, which in fact makes them omnivores (WLAP 2002).
Cougar
It is undetermined if there are cougars in the Mount Robson Provincial park area, if they are present, they are uncommon.

Smaller carnivores
Wolverines are largely restricted to alpine/subalpine habitats and therefore present year round (but seasonal abundance may vary). Coyotes and Lynx are widespread and found in the forested habitat inside as well as outside the park. They are fairly common and are present year round. Their numbers may be seasonally affected. Red fox are present but mostly restricted to the Yellowhead corridor. Fishers have not been confirmed to live in the area. Pine marten, short-tailed weasel and mink are all present in the park, but mink are considered uncommon.

Ungulates
Ungulate species in the park include moose, mountain goats, Rocky Mountain bighorn sheep, Rocky Mountain elk, woodland caribou, mule deer and white-tailed deer.

Snow depths inhibit deer and elk movement within the park in winter, and often exceed the tolerance of moose in midwinter. Some deer, elk and caribou winter in the park, but they are restricted to low snow habitats. Elk are more common in the drier climates to the east where snow depths are lower. South aspect slopes provide essential winter range during deep snow periods. Deep snow conditions at higher elevations may force ungulates, especially moose and caribou, into the valley bottoms.

Mountain goats
Goats generally stay close to their home range, while moose and caribou move much greater distances. A band of goats can be seen seasonally on Cinnamon Mountain N.W. of the viewpoint on the highway. Goats are most often found on south-facing slopes. They are mostly restricted to alpine/subalpine habitats.

Mountain sheep
Rocky Mountain bighorn sheep occasionally occupy the higher elevations in the alpine/subalpine areas, but are expected to originate from the Jasper National Park populations, with ewes and rams tending to inhabit different locations for most of the year. Old ewes join with groups of all aged females as well as those with young of both sexes. They band together and occupy the same range, while rams that are older than one to two years, tend to join groups that consist solely of bachelor males. A hierarchy is established among the rams, according to the size of their horns, body size and experience among the males. Occasional bouts of head-butting occur and the stronger rams usually come out higher in herd hierarchy. The sheep are seasonal inhabitants and therefore are considered uncommon in the area.
Caribou

The Mount Robson Provincial Park Ecosystem Management Plan identified woodland caribou as a key wildlife management priority. As part of the Ecosystem Management Plan, Keystone Wildlife Research completed an evaluation of woodland caribou winter range in Mount Robson Provincial Park in 1998 to in order to develop specific recommendations (landscape level prescriptions) for caribou.

Woodland caribou have very specific habitat requirements and do not respond well to changes in the environment due to their low productivity and dependence on relatively stable, old-aged, lichen-producing forest ecosystems. Lichens, the primary winter food of woodland caribou, are found in old growth ESSF forests in the park.

Caribou summer range is located along the ridge crest that runs along the eastern boundary of the park. The only confirmed caribou winter range in the park lies east of the travel corridor from the Fraser River to the Jasper National Park boundary (km 65-76). A second unconfirmed caribou winter range is located at the Moose River-Resplendent Creek junction.

Summer foods favoured by woodland caribou are most abundant in wet, subalpine meadow environments with high forb species diversity. Bogs and fen complexes (muskegs) are also important woodland caribou habitat. Woodland caribou studied by Brown and Ross (1994) were found to migrate into the southeast corner of the park between the Fraser River and the boundary with Jasper National Park. These animals were located in the Park year round, but most of the locations were during winter months (Nov 1st - April 30th) at elevations <2000 m.

In winter months, deep snow (> 62 cm) forces most caribou into valley bottom habitats where they are most likely to encounter wolves. In winter, woodland caribou occupy areas with snow depths < 50-60 cm. 62 cm of snow was found to be the threshold depth for caribou that are digging feeding craters in search of terrestrial lichens in areas of soft snow (Brown and Ross 1994). In spring, the elevation at which woodland caribou were found was related to snow depths; animals moved up valleys until snow depths reached 50-60 cm (Brown and Ross 1994).

The most recent surveys of caribou in or near Mount Robson Provincial Park indicate winter use (Keystone Wildlife Research 1998). According to the literature survey, caribou occasionally use the lodgepole pine bench south of Yellowhead Lake during winter. These caribou winter primarily along the Miette River and the Mount Robson Provincial Park/Jasper National Park boundary. Although surveys show there has been some caribou use of Mount Robson Provincial Park during winter, many of the caribou observations in the park occur during the summer/rut season near Tonquin Creek. Potential movement corridors include passes at Tonquin Creek and the Athabasca Pass at the headwaters of the Whirlpool River. The rugged terrain and extensive alpine and glaciated areas of Mount Robson Provincial Park limit the winter habitat capability for caribou.
It is unlikely that mountain caribou wintering in and near the Robson Valley utilize the area detailed as a “prescription zone” in the Ecosystem Management Plan. Previous monitoring surveys showed the drainages east of Kinbasket Lake receive very little use during winter by caribou and the closest concentration of caribou in British Columbia occurs south and west of the reservoir near Foster Creek and to the north near Forgetmenot Creek (Keystone Wildlife Research 1998, in Mount Robson Provincial Park Ecosystem Management Plan, Appendix 8).

**Deer and Elk**

Deer and elk winter range is restricted to two small areas north of the highway which may account for the limited number of deer and elk wintering in the park. The travel corridor passes through deer and elk winter ranges between kilometres 1-9 and 68-76.

Elk are much less abundant in the park and in the Yellowhead corridor than moose are, and are seldom seen during aerial surveys (Blood and Anweiler 1990). Most of the observed elk are observed from spring to fall in the eastern part of the corridor. It is assumed that they are seasonal populations that over-winter in Jasper National Park. Elk are primarily grazers, and are not as well adapted to winter browsing; thus, their winter ranges are more restricted.

Mule deer are common in the park and corridor in the summer, but winter populations tend to be smaller and are found mostly in western areas of the park. Numbers may vary, and are most likely in response to the depth of the snow and severity of the winter. Deer are more poorly adapted to winter snow than elk are. They rely on the shrubs and Douglas-fir along the south-facing slopes of the north side of the corridor to provide food and snow cover (Blood and Anweiler 1990).

White-tailed deer are found only occasionally in western part of the corridor between spring and fall. The deer found there most likely originate from established McBride populations. Their critical winter ranges are not known, but they are occasionally seen in the park in winter (Blood and Anweiler 1990).

**Moose**

Moose inhabit all the valley bottoms in the park and may be seen in the marshes at the east end of Moose Lake. Most moose in the park are year-round residents, with their summer range spreading across much of the park as well as outside the corridor. Wetlands and marshes are important feeding, calving, and calf-rearing sites. Moose Marsh in particular is a popular feeding site and a good place to view moose in late spring or summer.

The carrying capacity of moose as well as other ungulates is determined by the extent of their winter range (Blood and Anweiler 1990). Much of the moose winter range occurs along the Yellowhead corridor on either side of the highway. Stands that consist of woody browse such as: willow, red-osier dogwood, aspen and saskatoon, are considered critical habitat for their winter range. These bushes can be found along burns, some slides, wetlands, and shrubby riparian strips next to rivers and streams. Along the Yellowhead corridor, much of the winter ranges are below 1500 m elevation. This
includes the Robson River and Fraser River floodplains, the south-facing slopes along the corridor and above Yellowhead and Moose Lakes.

**Ungulate Capability – Canada Land Inventory**

Map 8 shows the Canada Land Inventory ungulate capability classifications for Mount Robson Provincial Park. Descriptions for each class follow below. (Canada Land Inventory 2000).

- **CLASS 1**: Lands in this class have no significant limitations to the production of ungulates.

- **CLASS 2**: Lands in this class have very slight limitations to the production of ungulates. Capability on these lands is high but less than class 1. Slight limitations are due to climatic or other factors.

- **CLASS 3**: Lands in this class have slight limitations to the production of ungulates. Capability on these lands is moderately high, but productivity may be reduced in some years. Slight limitations are due to characteristics of the land that affect the quality and quantity of habitat, or to climatic factors that limit the mobility of ungulates or the availability of food and cover.

- **CLASS 4**: Lands in this class have moderate limitations to the production of ungulates. Capability on these lands is moderate. Limitations are similar to those in class 3, but the degree is greater.

- **CLASS 5**: Lands in this class have moderately severe limitations to the production of ungulates. Capability on these lands is moderately low. Limitations are usually a combination of two or more of climate, soil moisture, fertility, depth of bedrock or other impervious layers, topography, flooding, exposure, and adverse soil characteristics.

- **CLASS 6**: Lands in this class have severe limitations to the production of ungulates. Capability on these lands is very low. Limitations are so severe that they are easily recognized; for example, soil depth may be negligible or climatic factors so extreme that ungulate populations are severely reduced.

- **CLASS 7**: Lands in this class have limitations so severe that there is no ungulate production.
Map 5: Ungulate Capability
**Small mammals**
Small animals such as pika and marmot inhabit the higher rocky terrain, squirrels and chipmunks are found at lower elevations. Beaver and muskrat inhabit the marshlands of the park. Ground squirrels and marmots are local in distribution and diurnal in habit. Their sedentary behavior and usually approachable nature make them popular subjects for photography. Snowshoe hares may be abundant and noticeable when at their cyclical peaks. Their effect on the regeneration of deciduous trees (prime winter food of hares) is considerable.

Columbian ground squirrels, chipmunks, bushy-tailed wood rats, shrews, voles, mice, snowshoe hare, weasels, porcupine and marten are commonly found in forested valleys outside the highway corridor as well as in the forested habitats along it. Porcupines are often observed by hikers. In summer porcupines spend most of their time on the ground feeding on a variety of herbaceous plants; in winter they subsist on a diet of inner bark, consisting mostly of lodgepole pine.

Typical species that are more or less restricted to the Robson valley include muskrat, river otter and mink. Muskrat houses are a feature of Moose Lake Marsh. Abundant beaver sign can be found at Lucerne on the Labrador Tea Trail and along the Fraser River Trail which lies below the Robson Meadows Campground. Beavers’ natural engineering abilities with their effect on boreal forest ecology make them an easy animal to locate, and they are often a favorite with interpreters and visitors.

**Birds**
Mount Robson Provincial Park’s wide range of habitat, from alpine meadows to low elevation wetlands, supports a diversity of bird species, particularly during the summer months. Alpine areas of the park, while supporting a very low diversity of species, harbour some of the more interesting avifauna such as the golden eagle, harlequin duck, willow and white-tailed ptarmigan and grey-crowned rosy finch.

The Yellowhead corridor supports bird species particularly adapted to forest habitats. However, smaller areas of wetland, bog, meadow and edges along disturbed sites, such as rights-of-way each have species not found elsewhere, and these areas add greatly to the diversity of park birds. Some species (i.e., bank and barn swallow; house sparrow) would likely be absent if the area remained in a pristine condition.

According to an intensive field study in Mount Robson Provincial Park (Stirling 1971) there were at that time 113 species of birds observed in the park over one summer of field work. The bird observations were mostly made at lower elevations, but during July the author spent time in the sub-alpine and alpine areas as well. Stirling found that there were low numbers of birds found at higher elevations which agreed with data found in a much earlier expedition (Riley 1911, cited in Stirling 1971), with most of the bird species being found lower elevations, along the highway and water bodies.
Areas of the park having unusually high diversities of breeding bird species include the riparian habitats along the lower Robson River where beaver have colonized, and the marsh at Moose Lake. Mount Robson Provincial Park is home to a minimum of 25 species of permanent avian residents. These include:

- raptors such as goshawk, great horned owl, boreal owl, great gray owl,
- Order Galliformes, namely blue grouse, ruffed grouse and spruce grouse, willow and white-tailed ptarmigan,
- corvids (omnivorous feeders) such as gray jay, black-billed magpie and common raven,
- woodpeckers (grubs and ants from rotten wood and under bark) such as hairy, northern and black-backed three-toed woodpeckers,
- chickadees (bark gleaners) such as black-capped, mountain and boreal; waxwings (frozen fruits) such as bohemian waxwing,
- finches (seed-eaters) such as evening and pine grosbeaks, gray-crowned rosy finch, red and white-winged crossbills.

Transient bird species include several species of waterfowl which breed on the prairies and winter on the south coast, and shorebirds which breed in the more northerly boreal forests and winter well south of the Canadian border. Red-necked and horned grebes, mallard and ring-necked ducks and American coots breed in Moose Lake marsh. They can easily be observed from the highway by even a casual visitor. Other waterfowl species include loons, bufflehead, mergansers, Canada goose and goldeneyes. Shorebirds include yellowlegs and sandpipers. Migrating waterfowl and shorebirds are easily seen at Moose Marsh during the spring and fall.

Most abundant of the summer bird visitors are the colourful small woodland species such as warblers. The Blackpoll warbler performs the longest and the most spectacular migration of all the summer birds. In late August, the Blackpoll, together with other migratory woodland species, move eastward through the Prairie provinces and eventually to the Atlantic seaboard. The final stage of their journey takes them non-stop across the ocean to their winter home in northern South America.

Full park species lists are recorded in park naturalists’ reports and the 1986 Park Interpretation Plan.
Amphibians and reptiles

Four amphibian and one reptile species are known to inhabit Mount Robson Provincial Park. The western toad (*Bufo boreas*), northern wood frog (*Rana sylvatica*), and western spotted frog (inhabit the Moose Lake marsh), also found is the long toed salamander (*Ambystoma macrodactylum*). The only reptile found in the Headwaters Forest District is the common garter snake (*Thamnophis sirtalis*), which is more cold-tolerant than most snakes, and can be found in a wide variety of environments (Gregory and Campbell 1999).

Fish

The lakes and streams of Mount Robson Provincial Park are cold and often silty, with low productivity for fish. Some lakes, such as Berg Lake are barren of fish due to the near complete lack of food and extremely cold temperatures. Fishing is permitted in the park, but is rated as poor to fair, with the best success in a few smaller lakes.

Moose Lake has generally low productivity, but some large rainbow trout, bull trout (a provincial species at risk) and kokanee are caught. Use is limited and fishing is not actively promoted. Yellowhead Lake and Lucerne Lake (the same water body connected by a narrows), has a native fish population of rainbow trout and bull trout weighing up to 1.5 lbs. Some lake trout are also caught. Limited stocking and spawning enhancement programs have been carried out.

Witney and Portal Lakes, two small lakes near Yellowhead Pass, have been stocked. They yield 1-1.5 lb rainbow trout with fair fishing success. Local people from the Jasper and the Tete Jaune Cache area use Yellowhead Lake for fishing. Some small alpine lakes in the park have limited sustainability requirements for fish, such as the lake near the headwaters of Dave Henry Creek along the western boundary. Berg and Kinney Lakes are not managed for a fishery due to cold silty waters with low productivity for fish.

According to the Mount Robson Provincial Park website (2001) the Yellowhead and Moose lakes have a variety of fish species, including: Bull trout (*Salvelinus confluentus*), lake trout (*Salvelinus namaycush*), rainbow trout (*Oncorhynchus mykiss*), kokanee (*Oncorhynchus nerka*), and mountain whitefish (*Prosopium williamsoni*).

Streams and rivers in the park are glacial, low in nutrients, and prone to flash floods. Fish are occasionally caught, but success rates are poor. The Fraser River has low productivity in the park, but bull trout and rainbow trout and chinook salmon are present downstream of Moose Lake to Tete Jaune Cache. Rearguard and Overlander Falls restrict fish movement. With the exception of Chinook salmon, Rearguard Falls effectively limits fish migration from the lower Fraser River into Mount Robson Provincial Park. Chinook salmon may be viewed jumping as they attempt to clear Rearguard Falls during spawning runs.
Robson River has few fish, but bull trout are occasionally caught. Moose River, Grant Brook, Ghita Creek, and the Upper Fraser support some bull trout and rainbow trout, and are best caught in the spring.

Ecology

Greater Yellowhead Ecosystem
The Greater Yellowhead Ecosystem\(^5\) includes Jasper National Park, Mount Robson Provincial Park, Foothills Model Forest and eastern areas of the Robson Valley along the Rocky Mountain Trench. Environmental factors affecting many ecological processes in the park reach far beyond protected area boundaries. Ecological factors operating at a global scale and over very long time periods can directly and significantly affect park ecosystems. Long term climatic change or changes in earthquake frequency and intensity are examples of this kind of effect. More localized, but still very far reaching ecological processes affected by factors far outside the park boundaries include effects on migratory birds and anadromous fish.

There are a number of extra-boundary management issues that can be influenced by management activities in the park, and by park neighbours. The most important of these are:

i) the spread of wildfire and insect outbreaks across park boundaries;

ii) management of far-ranging wildlife populations such as caribou and carnivores,

iii) control of the spread of non-native vegetation along park travel corridors.

With respect to wildfire and insects, and as identified in earlier planning documents (Blackwell et al. 1996 and Blackwell 2000), there are three inter-related forest health and ecosystem management issues that need to be addressed by the management plan.

Each of these issues pertains primarily to the main valley and travel corridor that bisects the park:

Seral Stage Distribution
Lower elevation forests of the Sub-Boreal Spruce biogeoclimatic zone within the park are dominated by lodgepole pine that was established by human caused fires during the construction of the railway line through the park in 1913. With the exception of at least two cohorts of veteran Douglas-fir, and more minor components of white spruce associated with wetter sites, the average age of lodgepole pine within these forests is 92 years. A literature review conducted as part of the development of the Ecosystem Management Plan (EMP), identified the absence of old and early seral forest within the SBS portion of the park. The EMP literature review was further supported by work published by Delong and Tanner (1996) that outlines seral targets for the SBS.

\(^{5}\) A term used to describe the joint management of the area that encompasses all of the above mentioned parks for the purpose of grizzly bear monitoring and conservation.
the EMP literature review and work by Delong and Tanner, the seral distribution within
the SBS portion of Mount Robson Provincial Park is lacking both in the distribution of
old and early age class forests. Ecologically, these lower elevation SBS forests are
uniform in age and structure and have been under attack by mountain pine beetle since
1997.

*Mountain Pine Beetle*
There is a significant percentage of forest that is estimated to have high to extreme
susceptibility to mountain pine beetle. The latest forest health surveys show that the
spread of the beetle through the park has reached Jasper National Park. While it is
recognized that the mountain pine beetle infestation within the park cannot be fully
stopped, the Ecosystem Management Group believes the rate of infestation spread to
Jasper National Park can be reduced through management actions. Accordingly, falling
and burning is occurring in the area east of Yellowhead Lake up to the Jasper town site.
Slowing the beetle spread to the east will allow for treatment activities to be undertaken
in Jasper National Park to help reduce the spread of beetles to the forests lying to the east.

*Fire Hazard*
There is a significant percentage of forest that is estimated to have a moderate to high
wildfire hazard. The area of the 1913 fire and a number of other fires that occurred during
or after 1889 (Tande 1979) extend all the way to the town of Jasper and forms a uniform
and contiguous C3 fuel type\(^6\) that is susceptible to catastrophic wildfire. The Syncline
Fire of 2003, located east of the Jasper town site, demonstrated the fire behaviour
potential within this C3 fuel type; where during one burning period the fire growth
exceeded 8,000 ha. Additionally, there were a number of days where fire growth
exceeded 2,000 ha. Through a joint working group of federal and provincial agencies,
B.C. and Alberta have been actively planning wildfire fire management strategies,
including construction of fuel breaks, prescribed burning and community wildfire
protection planning within both jurisdictions.

---

\(^6\) A C3 fuel type is typically characterized by mature stands of lodgepole pine (*Pinus contorta*) having
complete crown closure and dead surface fuels that are spread out along the ground with moss or a compact
organic layer or both. There may also be a conifer understory present (Canadian Forest Service 2006).
Map 6: Mountain Pine Beetle Hazard

Legend:
- Park Boundary
- Creeks
- Lakes

Beetle Hazard:
- Extreme
- High
- Moderate
- Low
Map 7: Fire Hazard Rating

Maps sourced from the Mount Robson Provincial Park Forest Health Strategy
Species at risk
The following Tables (5-8) show species that are at risk for the Headwaters Forest District as identified through the BC Conservation Data Centre (CDC 2006). Red-listed species have been determined to be endangered, threatened, extirpated or at risk of becoming classified as such. Blue-listed species are those that are not considered to be under immediate threat, but are considered to be vulnerable due to characteristics that make them sensitive or susceptible to disturbance.

There are currently no resident red-listed fauna species at Mount Robson Provincial Park (Blood and Anweiler 1990). Not all of the animals and plants listed in the following tables are found in the park, however many of them may be impacted by populations of other species that do exist within the park boundaries. Woodland caribou (northern population) for example, are a blue-listed species in British Columbia and are known to use the park. Therefore, the habitat requirements of woodland caribou are considered to have a higher priority than those for deer, moose and elk.

Table 5. Red-listed Animal Species Found in the Headwaters Forest District

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>English Name</th>
<th>Global Rank</th>
<th>Provincial Rank</th>
<th>COSEWIC BC Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acipenser transmontanus</td>
<td>White Sturgeon (upper Fraser population)</td>
<td>G4T1Q</td>
<td>S1</td>
<td>E (Nov 2003) Red</td>
</tr>
<tr>
<td>Rangifer tarandus</td>
<td>Caribou (southern population)</td>
<td>G5T2Q</td>
<td>S1</td>
<td>T (May 2000) Red</td>
</tr>
</tbody>
</table>

Table 6. Red-listed Plant Species Found in the Headwaters Forest District

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>English Name</th>
<th>Global Rank</th>
<th>Provincial Rank</th>
<th>COSEWIC BC Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azolla mexicana</td>
<td>Mexican mosquito fern</td>
<td>G5</td>
<td>S2</td>
<td>T (May 2000) Red</td>
</tr>
<tr>
<td>Botrychium boreale*</td>
<td>boreal moonwort</td>
<td>GNR</td>
<td>S1</td>
<td>Red</td>
</tr>
<tr>
<td>Botrychium lineare</td>
<td>Linear-leaf moonwort</td>
<td>G1</td>
<td>S1</td>
<td>Red</td>
</tr>
<tr>
<td>Botrychium montanum</td>
<td>mountain moonwort</td>
<td>G3</td>
<td>S1</td>
<td>Red</td>
</tr>
<tr>
<td>Carex comosa</td>
<td>bearded sedge</td>
<td>G5</td>
<td>S2</td>
<td>Red</td>
</tr>
<tr>
<td>Drosera linearis</td>
<td>slender-leaf sundew</td>
<td>G4</td>
<td>S1</td>
<td>Red</td>
</tr>
<tr>
<td>Erigeron trifidus</td>
<td>three-lobed daisy</td>
<td>G2G3Q</td>
<td>S2</td>
<td>Red</td>
</tr>
<tr>
<td>Solidago gigantea ssp. serotina</td>
<td>smooth goldenrod</td>
<td>G5TNR</td>
<td>S1</td>
<td>Red</td>
</tr>
<tr>
<td>Torreyochloa pallida</td>
<td>Fernald's false manna</td>
<td>G5</td>
<td>S1</td>
<td>Red</td>
</tr>
</tbody>
</table>

*Grey highlight = confirmed in Mount Robson Provincial Park (Simonar and Bernier 2000).
Table 7. Blue-listed Animal Species Found in the Headwaters Forest District

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>English Name</th>
<th>Global Rank</th>
<th>Provincial Rank</th>
<th>COSEWIC</th>
<th>BC Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Birds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ardea herodias herodias</td>
<td>Great Blue heron, herodias subspecies</td>
<td>G5T5</td>
<td>S3B,S4N</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Botaurus lentiginosus</td>
<td>American Bittern</td>
<td>G4</td>
<td>S3B</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Grus canadensis</td>
<td>Sandhill Crane</td>
<td>G5</td>
<td>S3S4B</td>
<td>NAR (May 1979)</td>
<td>Blue</td>
</tr>
<tr>
<td>Hirundo rustica</td>
<td>Barn Swallow</td>
<td>G5</td>
<td>S3S4B</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Numenius americanus</td>
<td>Long-billed Curlew</td>
<td>G5</td>
<td>S3B</td>
<td>SC (Nov 2002)</td>
<td>Blue</td>
</tr>
<tr>
<td>Patagioenas fasciata</td>
<td>Band-tailed Pigeon</td>
<td>G4</td>
<td>S3S4B</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td><strong>Mammals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gulo gulo luscus</td>
<td>Wolverine, luscus subspecies</td>
<td>G4T4</td>
<td>S3</td>
<td>SC (May 2003)</td>
<td>Blue</td>
</tr>
<tr>
<td>Martes pennanti</td>
<td>Fisher</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Myotis septentrionalis</td>
<td>Northern Long-eared Myotis</td>
<td>G4</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Ovis canadensis</td>
<td>Bighorn Sheep</td>
<td>G4</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Ursus arctos</td>
<td>Grizzly Bear</td>
<td>G4</td>
<td>S3</td>
<td>SC (May 2002)</td>
<td>Blue</td>
</tr>
<tr>
<td>Rangifer tarandus</td>
<td>Mountain Caribou (northern population)</td>
<td>G5</td>
<td>S3S4</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td><strong>Fish and Insects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oncorhynchus clarkii lewisi</td>
<td>Cutthroat Trout, lewisi subspecies</td>
<td>G4T3</td>
<td>S3</td>
<td>SC (May 2005)</td>
<td>Blue</td>
</tr>
<tr>
<td>Salvelinus confluentus</td>
<td>Bull Trout</td>
<td>G3</td>
<td>S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Somatochlora brevicincta</td>
<td>Quebec Emerald</td>
<td>G3</td>
<td>S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Boloria alberta</td>
<td>Albert's Fritillary</td>
<td>G3</td>
<td>S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Colias meadii</td>
<td>Mead's Sulphur</td>
<td>G4G5</td>
<td>S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Erebia magdalena</td>
<td>Magdalena Alpine</td>
<td>G5</td>
<td>S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Oeneis bore edwardsi</td>
<td>White-veined Arctic, edwardsi subspecies</td>
<td>G5T3</td>
<td>S3</td>
<td></td>
<td>Blue</td>
</tr>
</tbody>
</table>
### Table 8. Blue-listed Plant Species Found in the Headwaters Forest District

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>English Name</th>
<th>Global Rank</th>
<th>Provincial Rank</th>
<th>COSEWIC</th>
<th>BC Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agoseris lackschewitzii</td>
<td>pink agoseris</td>
<td>G4</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Anemone Canadensis*</td>
<td>Canada anemone</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Botrychium crenulatum</td>
<td>dainty moonwort</td>
<td>G3</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Botrychium hesperium</td>
<td>western moonwort</td>
<td>G3G4</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Carex heleonastes</td>
<td>Hudson Bay sedge</td>
<td>G4</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Carex rostrata</td>
<td>swollen beaked sedge</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Carex tonsa var. tonsa</td>
<td>bald sedge</td>
<td>G5T4T5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Draba alpina</td>
<td>alpine draba</td>
<td>G4G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Draba cinerea</td>
<td>gray-leaved draba</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Draba ruaxes</td>
<td>coast mountain draba</td>
<td>G3</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Dryopteris cristata</td>
<td>crested wood fern</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Eleocharis elliptica</td>
<td>elliptic spikerush</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Epilobium ciliatum ssp. watsonii</td>
<td>purple-leaved willowherb</td>
<td>G5T3T5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Epilobium hormemannii ssp. behringianum</td>
<td>Hornemann's willowherb</td>
<td>G5T4</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Epilobium leptocarpum</td>
<td>small-fruited willowherb</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Epilobium oregonense</td>
<td>Oregon willowherb</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Festuca minutiflora</td>
<td>little fescue</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Galium labradoricum</td>
<td>northern bog bedstraw</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Galium tridifum ssp. tridum</td>
<td>small bedstraw</td>
<td>G5T5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Glyceria pulchella</td>
<td>slender mannagrass</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Juncus stygius</td>
<td>bog rush</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Minuartia austromontana</td>
<td>Rocky Mountain sandwort</td>
<td>G4</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Muhlenbergia glomerata</td>
<td>marsh muhly</td>
<td>G5</td>
<td>S3</td>
<td>SC (Apr 2006)</td>
<td>Blue</td>
</tr>
<tr>
<td>Nephroma occultum</td>
<td>Cryptic Paw</td>
<td>G3</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Ophioglossum pusillum</td>
<td>northern adder's-tongue</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Pedicularis parviflora ssp. parviflora</td>
<td>small-flowered lousewort</td>
<td>G4T4</td>
<td>S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Poa abbreviata ssp. pattersonii</td>
<td>abbreviated bluegrass</td>
<td>G5T5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Salix petiolaris</td>
<td>meadow willow</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Senecio plattensis</td>
<td>plains butterweed</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Trichophorum pumilum</td>
<td>dwarf clubrush</td>
<td>G5</td>
<td>S2S3</td>
<td></td>
<td>Blue</td>
</tr>
</tbody>
</table>

*Grey highlight = confirmed in Mount Robson Provincial Park (Simonar and Bernier 2000).
Cultural Values

Archaeology

Archaeological sites in the park show evidence of prehistoric and historic occupation, trade and travel by First Nation peoples. The Rocky Mountains created a natural barrier separating plains people from interior and forest cultures, with the mountain passes serving as natural places for interaction and trade. Historic use from Euro-Canadian exploration, the trapping and trading era, railway construction and settlement have also left sites with potential for archaeological investigation and interpretation.

Yellowhead Pass was used by First Nations after the end of the last glaciation, with evidence of human occupation of Jasper national Park dating back 10,000 years. The ethnographic record shows that the Yellowhead was an important route for moving trade goods across the mountains, from interior and coastal regions to areas east of the Rocky Mountains. Trade items included obsidian, salmon, candle fish, hides and marine shells. Three archaeological sites along the Yellowhead corridor are identified on B.C. Heritage Branch maps. House depressions, cache pits, five cache depressions, and basalt flakes have been found at these sites. An historic village with a prehistoric component has revealed 14 house depressions, and 21 gravesites from 1919.

The railway construction period beginning in 1911 with the completion of the Grand Trunk Pacific Railway through Yellowhead Pass, followed by the CNA Railway in 1913, left numerous archaeological sites associated with railway construction in the park.

History

The history of Mount Robson and the Yellowhead Pass provides a rich dimension to the interpretation of the park. Human use is linked closely with the area’s natural resources from the earliest times to the present. Environmental conditions and difficulties associated with travel in the mountainous terrain, affected people of that time on many levels. In particular, subsistence hunting, seasonal availability of berries and fish, fur trading and the movements of people and goods were impacted. First Nations played a major role in the early exploration and trading in the Yellowhead Pass-Tete Jaune area. They guided and provided game to those who may have otherwise suffered. New ways of appreciating the wilderness for its scenery and recreation changed the way these mountains and valleys are used, but the links with the environment have remained.
This history section is adapted from Taylor (no date), and Wuorinen (1976), as narrated in the Mount Robson Interpretive Plan, 1986. The main historic themes of the park are:

- First Nation’s History
- Fur Trade and Exploration
- The Overlanders
- Cheadle and Milton’s Northwest Passage
- The Railway Survey Era
- Early Climbers, Tourists and Settlements
- The Yellowhead Highway

**First Nations History**

Yuh-hai-has-kun or the Mountain of the Spiral Road (referring to the layered appearance) was the name given Mount Robson by the Texqakallt, the earliest known inhabitants of the upper reaches of the Fraser River. According to early Euro-Canadian travellers, these Shuswap people of the Upper North Thompson Band were nomadic. A seasonal round linked to the availability of food would have determined their location at any given time.

Lodges and fish drying racks were constructed in prime fishing territory at the confluence of the McLennan and Fraser rivers in the vicinity of what is now known as Tete Jaune Cache. At times they constructed bark teepees. As well as salmon from the Fraser, trout were reportedly taken from Yellowhead Lake. They hunted bighorn sheep, mountain goats, moose, marmots, and other small mammals and birds. They also relied on edible plants, especially berries.

As the Shuswap people were extending their hunting territory westwards through the Yellowhead Pass, the Cree, with the advance of the fur trade, were extending east towards the Jasper area. Eventually the two territories overlapped. As a result, both the Shuswap and the Cree languages were spoken by a group of 30-40 families that frequented the area. The French language was introduced around 1817 by J.F. La Rocque, a French Canadian voyageur employed by the Northwest Company. La Roque was heading for New Caledonia's Fort George, accompanied by a group of expert Iroquois canoeemen, greatly valued for their speed of transport across the Canadian wilderness.
In 1865, Milton and Cheadle wrote that:

...when first met by the pioneers of the Hudson's Bay Company, the only clothing used by these people was a small robe of the skin of the mountain marmot. They wandered barefoot amongst sharp rocks, and amidst the snow and bitter cold of the fierce northern winter. When camping for the night they are in the habit of choosing the most open spot, instead of seeking the protection of the woods. In the middle of this they make only a small fire, and lay in the snow, with their feet towards it, like the spokes of a wheel, each individual alone, wrapped in a marmot robe, the wife apart from her husband, the child from its mother. They live, by hunting bighorns, mountain goats, and marmots; and numbers who go out every never return [sic].

Like the chamois hunters of the Alps, some are found dashed to pieces at the foot of almost inaccessible heights to which they follow their game; of others no trace is found. The Shuswaps of Jasper House formerly numbered about 30 families, but are now reduced to as many individuals. Removed by immense distances from all other Indians, they are peaceable and honest, ignorant of wickedness and war. Whether they have any religion or not, we could not ascertain; but they enclose the graves of their dead with scrupulous care, by light palings of wood, cut, with considerable neatness,
with their only tools - a small axe and knife. They possess neither horses nor
dogs, carrying all their property on their backs when moving from place to
place; and when remaining in one spot for any length of time, they erect
rude slants of bark or matting for shelter, for they have neither tents nor
houses. As game decreases the race will, doubtless, gradually die out still
more rapidly, and they are already fast disappearing from this cause, and the
accidents of the chase.

Native people were likely prominent, although not always credited, in the early
exploration and trading around Yellowhead Pass and Tete Jaune Cache. They offered
guiding services and expertise in locating and killing game for those who might otherwise
have struggled.

Fur Trade and Exploration
Competition between the Northwest Company and the Hudson's Bay Company (HBC)
increased as the HBC pushed further into the trading territory previously held by the
Northwest Company. In February of 1819, John Clarke, of the HBC's St. Mary's post on
the Smoky/Peace River confluence, chose Jose Gaubin to lead an expedition with a band
of Iroquois. Their intent was to cross the mountains into New Caledonia to see if the
natives could be induced to trade with the Hudson's Bay Company. In December of
1819, Ignace Giasson began another HBC push up the Smoky River. Colin Robertson,
(after whom Mount Robson is possibly named) of the Hudson's Bay Company's prepared
written instructions specifying that the group be accompanied by the yellow-haired
Iroquois guide: Pierre Hatsination, or Tete Jaune as he came to be called. The group was
to ascend to the Grand Forks of the Smoky River where they were to meet another group
of Iroquois, wait until spring, and then cross Robson Pass to make friends with the
Shuswap Indians of the upper reaches of the Fraser. On June 10, 1820, James McDougal
recorded in the Northwest Company's journal at Fort St. James, that he had heard "a
report of there being at the Forks of Fraser's River one of the H.B.'s clerks and three
men."

Due to the inability of the Northwest Company and the Hudson's Bay Company to
withstand intense competition, they amalgamated under the name of the Hudson's Bay
Company. George Simpson took over from Colin Robertson as man-in-charge of the
area. As Governor of the Northern Department in 1825, Simpson sent James MacMillan,
guided by Tete Jaune, to survey the Yellowhead Pass area. One year later he ordered the
"... requisition of 500 Dressed Moose and Deer Hides be provided and forwarded by the
Saskatchewan District to Tete Jaune Cache on or before the close of September proxo."

Tete Jaune continued trapping and trading in the area, and by 1827 had relocated his
cache from the Grand Fork of the Fraser, to the vicinity of the Shuswap salmon fishing
camp on the Fraser River where Tete Jaune Cache stands today. Sometime in 1828 near
the headwaters of the Smoky River, he, his brother, their wives and children were
murdered by the Beaver Indians as revenge on the Iroquois for their earlier encroachment
into the Beaver's hunting territory. Eventually a pack trail was established through Tete
Jaune's Pass and the leather passed through until 1830 when, due to difficulties with passage through the Pass, Simpson ordered the leather to be transported through the Peace River Country, and the Leather Pass fell into disuse.

The Overlanders
It was not until the early 1860's that the Yellowhead Pass was again used frequently. In the fall of 1861, H.J. Moberly quit his post as HBC factor\(^7\) at Jasper and made his way to Ft. George through the Yellowhead with the aid of a young Iroquois guide. In 1862 a group of 115 men and one woman began to ascend the Yellowhead Pass. They had left Ontario some months earlier, and were heading to the British Columbia Cariboo in search of gold. While in Fort Edmonton they discussed the merits of that pass with a party of miners returning from the Cariboo and decided to travel that route to reach their destination.

They abandoned their carts and struggled onward with pack-oxen and horses and with packs on their backs. After crossing the height of land at the summit of the Yellowhead Pass, the first of the Overlanders camped at Cow Dung or Yellowhead Lake. They continued on and camped at Moose River, Red Pass, and at the original Tete Jaune's cache. At Tete Jaune their trails diverged. Many headed down the Fraser River, and many died en route. Some made their way to the Cariboo gold fields. At about the same time another group of travellers was lured by gold to the Yellowhead.

Cheadle and Milton's Northwest Passage
Dr. Cheadle and Lord Milton began their journey in England, landed in Quebec in July of 1862, and travelled overland eventually ending at Jasper House. Here the group hired an old Iroquois to guide them as far as Tete Jaune Cache.

On Thursday, July 9, 1863, the group crossed the continental divide on the Yellowhead Pass and camped "...for dinner at the head of Buffalo Dung Lake. Our guide told us this lake was a great fishing place for the Shuswaps and frames for drying fish bore out his contention" (Milton and Cheadle 1865).

Cheadle (1865) claimed the road "to be pretty good all the way,"...that is, as far as Buffalo Dung or Yellowhead Lake. From that point on they were met with "...muskeg, water, mire, [and] marsh in the low ground." Before reaching Moose Lake, Milton, Cheadle and O'Byrne all had narrow escapes with severe injury and death. Writing in his diary, Cheadle (1865) claimed that "...everybody was tired and glad to camp, and we had a feast of bread and vegetable soup, this being the hardest day we have had, and during the afternoon the worst road."

On passing by the original Tete Jaune Cache at the Grand Forks of the Fraser the group caught "...a glorious sight, and one which the Shuswaps of the Cache assured us had rarely been seen by human eyes, the summit being generally hidden by clouds... a giant of giants... Robson's Peak" (Milton and Cheadle 1865). The next day the group moved on.

\(^7\) Meaning delegated to a post as a representative of the company.
towards the present Tete Jaune Cache. At Tete Jaune Cache they were able to secure salmon, berries, and pemmican. The old Iroquois guide turned back for Jasper and the remainder of the party followed the river route to Kamloops.

**The Railway Survey Era**
In 1865, Dr. John Rae, sponsored by the Hudson's Bay Company, the Imperial and Canadian Governments, and the Grand Trunk Pacific Railway (GTPR) surveyed Yellowhead pass for a possible railway, wagon road and telegraph line that would connect the new colonies in British Columbia with the rest of Canada. Formal surveys were not conducted until 1871, by Sandford Fleming. Even though the pass was found to be the most acceptable, the Canadian Pacific Railway (CPR) abandoned the route in favour of the more southerly Kicking Horse Pass. The Yellowhead Pass route saw little activity until the turn of the century.

In 1898, James McEvoy, a geologist, traveled through the pass and mentioned Yuh-hai-has-kun, the Shuswap name for Mount Robson. Soon after McEvoy left the area, a small group of miners struck gold at the confluence of Swift Current Creek and the Fraser River. Several small, well provisioned parties began to flock into the area, but, unable to make any profit, they gradually drifted away.

By 1900, the Grand Trunk Pacific, then one of Canada's major railway corporations, began talking about a second trans-continental railway. Not only did the Grand Trunk Pacific Railway begin to show interest, but another railway, the Canadian Northern (CNR), began to send surveyors and pack trains through the Pass. Once again the Yellowhead Pass was showing more promise as a transportation route.

**Early Climbers, Tourists and Settlements**
Along with the surveyors and pack-trains, came men that knew how to handle horses. Many of these, greatly impressed with the beauty of the area, decided to stay and make a living. One of these was John Yates. He "...came into real prominence early in 1907 when he was able to outmaneuver, out-drink and outride his opponents in a contest for the contract to carry the mail to the railroad construction camps between Edmonton and Tete Jaune Cache" (Hart 1979, pg. 87).

In 1906, A.O. Wheeler of the Alpine Club of Canada, with Sir Sandford Fleming as honorary president, decided that the organizations first assault should be on untrodden Mount Robson. It took the climbing expedition 41 days to reach the base of mountain. Their food was almost gone and their horses were sick and lame. Finally, after reaching Emperor Falls, the weather worsened and they decided to retreat. On the way out, plans were made for a repeat attempt in 1908.

John Yates and Adolphus Moberly (one of H.J. Moberly's descendants) guided the 1908 expedition up the Moose River, over Moose Pass onto the headwaters of the Smoky River, and over Robson Pass to the foot of Robson Glacier. Continuous rain and snow excluded the possibility of an attempt on Mount Robson, and, as they waited, their food
supply dwindled. They camped at the base of Mount Robson for three weeks amongst the
wind, rain, sleet, and snow. After a number of assaults, one of which the Reverend
George B. Kinney attempted alone, they decided to retreat from the mountain. Plans were
made to return the following year and again Yates was asked to accompany the
expedition.

In the spring of 1909, Kinney heard rumours of the approach of a group of mountaineers
bound for Mount Robson. Fearing a successful foreign assault, Kinney set out from
Victoria early in hopes of beating them to the summit. During his trek to the mountain,
Kinney met Donald 'Curly' Phillips. Kinney persuaded Phillips, a non-climber, to join in
his endeavours and they began their ascent to Mount Robson.

"No ascent in the history of the Canadian Rockies demanded more sheer guts and
determination in the face of hair-raising brushes with death by avalanche, exposure and
starvation" (Hart 1979, pg. 9). After 2 unsuccessful attempts due to inclement weather
they managed to reach the 10,500 foot level. They hacked a ledge out of the ice and
bivouacked for the night. As they were making their way up the steep slopes a storm
passed over but they continued to climb with ice covering their hands and feet. On the
ridge leading to the summit the wind had heavily corniced the snow, but still they pushed
on through the blinding storm. Late in the afternoon Kinney stood "…on a needle peak
that rose so abruptly that even cornices cannot build very far out on it. Baring my head I
said in the name of Almighty God, by whose strength I have climbed here, I capture this
peak, Mount Robson, for my own country and for the Alpine Club of Canada" (Hart 1979,
pg. 92). In fact, Kinney never made it to the summit, stopping short below an icy and
steep summit. His insistence on claiming the first successful climb resulted in one of
Canada’s most enduring climbing controversies. It was not until Kinney was an old man
that he admitted that perhaps they had been short of the summit on that stormy day in
1909.

‘End-of-steel’ villages were beginning to spring up all along the Grand Trunk Pacific
Railway. Movement into the Yellowhead area was facilitated by the ‘iron horse’ and
more people took advantage of the ease of transportation. Life in the villages was not
always easy. Typhoid raged from camp to camp, taking its toll on human life. Living
conditions were sometimes atrocious, and labour disputes erupted sporadically. A typical
bunkhouse in one of the end-of-steel construction camps was described by Talbot (1912)
as:

...a long low building, covered with black tar paper, it looks dingy enough.
The door when opened lets out an atmosphere reeking with coal oil, bad
tobacco, and wet socks. On the right are two tiers of wooden bunks, each
tier consisting of two bunks side by side. The men are pretty closely packed.
A bench runs along by the bunks, and this, with several boxes and tree
stumps, forms the sitting accommodation. The floor is covered with mud
and slush, brought in by many pairs of boots, with the socks which belong to
them are hung up in various advantageous positions near the central heater
in which a huge wood fire is roaring...
By 1911 work trains were running to Summit City (Mile 0), Lucerne, Moose City and Red Pass (Mile 29). The railway went through in spite of reputed lawlessness at the work camps. In fact, two railways went through: the Grand Trunk Pacific, and shortly thereafter, the Canadian Northern. Lucerne became an important terminal for the Grand Trunk with a depot, a coal ‘tripple’, a marshalling yard for freight cars, two round houses, two stores, a school, a doctor’s office, pool hall, saloons, barbers, bunkhouses, and restaurants.

In 1911, A.O. Wheeler organized a joint Alpine Club of Canada - Smithsonian Institution Expedition into the Robson area. Many prominent scientists and climbers were in the party, among them Conrad Kain. While the expedition was waiting at Berg Lake (for the horses to make the return circuit around Mount Robson, to avoid the steep cliffs in the Valley of a Thousand Falls) Conrad Kain set off alone and succeeded in climbing Mount Whitehorn, the first man known to have done so. Wheeler stalled the group and no attempt was made on Mount Robson, the general feeling being that they wanted to save the second assault for the Alpine Club of Canada's Berg Lake Camp in 1913.

A.O. Wheeler began bargaining with the Grand Trunk Pacific railway and the Government of British Columbia to have a trail constructed up the Grand Fork of the Fraser to Berg Lake. Finally, the B.C. Government agreed to pay the costs of having a trail built and Donald Phillips was awarded the contract.

After finishing the trail, Phillips joined up with the Otto brothers to pack in the equipment for the Alpine Club's Berg Lake Camp. Prior to the camp and at A.O. Wheeler’s insistence, Mount Robson was declared a Provincial Park, and the Deputy Minister of Public Works was at Berg Lake to welcome the Alpine Club to the newly established park. During the Berg Lake Camp the first successful assault on Mount Robson was executed by Conrad Kain. As Kain descended to the camp, Curly Phillips declared that his previously believed "first assault" with George Kinney was not to the very summit of the mountain. In describing the climb Kain later said:

"The view was glorious in all directions. One could compare the sea of glaciers and mountains with a stormy ocean. Mount Robson is about 2,000 feet higher than all the other mountains in the neighbourhood. Indescribably beautiful was the vertical view towards Berg Lake and the camp below. Unfortunately, only fifteen minutes were allowed us on the summit, ten of pure pleasure, and five of teeth chattering. My rope and our damp clothes were frozen as hard as bone. And so we had to think of the long descent. (Foster 1913)

With the ease of railway transportation, many more mountain climbers, tourists and other people seeking recreation and business opportunities ventured into the Mount Robson area. Late in 1915 the need for steel in war-torn France had increased and the Dominion Government ordered that steel from one of the duplicate GTP-CNR tracks through the Yellowhead be sent overseas. Most of the Grand Trunk's tracks were retained while most of the Canadian Northern's were torn up. By December of 1918 the Dominion
Government had amalgamated the Canadian Northern, Grand Trunk Pacific, and other railways to form the Canadian National Railway.

**The Yellowhead Highway**

As soon as the First World War was over, the idea for a Yellowhead Highway came to light. Fred Driscoll, one of the railway surveyors, suggested that the abandoned railway grade would make a fine foundation for a highway. Two groups seeking a medal offered by the Automobile Association of Canada travelled the railway route with a Model ‘T’ Ford and Overland Four. Both automobiles reached Victoria and both groups received medals for their unique expedition. Later this route through the Yellowhead was developed into what became known as the ‘tote road’.

In 1923, a decision was made by the Canadian National Railway to move the terminal from Lucerne, a town of over three hundred people, to Jasper. By 1924, just about everyone had moved to Jasper and the once pleasant town of Lucerne ceased to exist. Red Pass however, became the new divisional point and began to grow.

As the number of visitors into Robson valley increased, more people appreciated the area for recreation. Many of the old outfitters and guides (such as: the Otto Brothers, ‘Curly’ Phillips and Fred Brewster), as well as the newcomers prospered. Then the Great Depression came, which devastated tourism in the area as the flow of tourists slowed to a trickle and almost disappeared altogether.

During the Second World War many Japanese were removed from their residences on the coast and relocated to internment camps, among them were, Lucerne, Rainbow, Red Pass, Albreda, and Tete Jaune Cache. The men upgraded the abandoned railroad grade to a truck road and constructed additional new roads over steep grades. By 1944 the ‘tote road’ was open. In August of 1948 a caravan of cars and trucks passed through the Yellowhead Pass from Edmonton to Kamloops.

After the war, the Trans Mountain Oil Pipeline company looked at the Yellowhead as a possible route for a pipeline from Edmonton to Vancouver. Construction began in 1952. During the construction of the pipeline much of the ‘tote road’ was damaged or completely destroyed.

By 1969, the tote road had been more or less reconstructed and paved. In August of 1970, the Premier of British Columbia, W.A.C. Bennett, officially opened the Yellowhead Inter-provincial Highway. In 1987, B.C. Tel installed a fibre optics line adjacent to the highway.

From 1970 -1989 the number of visitors to Mount Robson Provincial Park increased from 22,246 to 300,000. Most of today’s visitors are touring families and sightseers. Mount Robson also attracts backpackers, mountain climbers and other adventure seekers from all over the world.
Visual and Recreation Values

Features

Mount Robson Provincial Park has many outstanding recreation and interpretation features. Mount Robson and the Ramparts, a chain of peaks straddling the provincial border, are nationally significant. Provincialy noteworthy mountain peaks include Resplendent, Lynx and Whitehorn Mountains. In addition, peaks of regional topographic interest, such as Mount Fitzwilliam, are found here.

Provincially important alpine meadows, such as those in Fraser Pass, Tonquin Pass, Resplendent Valley and Miette Pass, are characterized by extensive alpine and sub-alpine vegetation, and outstanding viewing opportunities.

Lakes, rivers and the many waterfalls in the park add to the diversity of landscape features. Moose Lake and Yellowhead Lake both offer opportunities for boating and angling. Smaller lakes such as Witney and Portal Lake provide an outlet for those seeking quiet walking or fishing in a more intimate setting. Many lakes, such as Berg or Kinney Lake are not used directly for activities, but are scenic features to appreciate for their own sake during hiking or horseback riding trips.

The most important watercourse in the park is the Fraser River, a world renowned salmon river with the added dimension of history and colourful personalities attached to it. Overlander Falls provides a good viewpoint, while the nearby steep walled canyon rapids offer challenging kayaking or rafting for experts. Robson River is another stream of importance; between Berg Lake and Kinney Lake the river passes through the Valley of a Thousand Falls, a provincially significant waterfall landscape.
Mount Robson Recreation & Interpretive Features

**Nationally significant**
- Mount Robson, Berg Lake and associated glaciers
- The Ramparts, for their pinnacled rock formations overlooking Amethyst Lakes
- Arctomys Cave, as the deepest cave in the Rocky Mountains
- Wilderness, including intrinsic, recreational, spiritual and educational values
- Mount Terry Fox as a memorial and viewpoint
- Yellowhead Pass, aboriginal use and history

**Provincially Significant**
- Valley of a Thousand Falls
- Fraser River headwaters
- Wildlife, in particular mountain goat, moose, elk and grizzly bear populations
- Archaeological and historic artifacts of transportation and settlement
- Peaks in or near the Mount Robson Group, including Resplendent Mountain, Mount Kain, Lynx Mountain, Rearguard Mountain, Whitehorn Mountain, and Mount Longstaff for their climbing interest
- Peaks near The Ramparts, such as Turret Mountain, Bennington Peak and Mastodon Peak, for their climbing interest
- Moose Lake marsh, wetland wildlife

**Regionally significant, Rocky Mountains**
- Moose Lake, Yellowhead Lake
- Overlander Falls
- Rearguard Falls (outside park)
- Kettle Ponds

**Locally significant**
- Witney and Portal Lakes for fishing
- Numerous cirque basins and small glaciers
- Wildlife, local populations of furbearers, predators and avifauna

**Wilderness**
Mount Robson Provincial Park, Jasper National Park, Willmore Wilderness Park, Kakwa Wildland Park and Kakwa Provincial Park together protect a significant part of the Rocky Mountain region wilderness. Most of the lands within these protected areas are managed as wilderness, conserving an internationally important wilderness ecosystem and recreation area.

**Visual and scenic**
Superb mountain scenery is one of the most common reasons why people visit the Rocky Mountain parks, and Mount Robson Provincial Park provides dramatic vistas in a variety of settings. The Yellowhead Highway presents outstanding views of the mountain ranges...
which lie north and south of the Fraser River valley. The Mount Robson viewpoint, Mount Fitzwilliam and Yellowhead Mountain pull-outs are favourite viewing sites. Berg Lake and Mount Robson together are the scenic highlights of the park, a classic Rocky Mountain setting equal to the more famous Lake Louise in its appeal.

Backcountry travellers in the park seek out the wilderness setting, seemingly free of human influence. A lack of observable logging impacts, mining or other industrial activities is an important part of the park’s visual attributes.

Biological
The variety of wildlife and plant species found in the park is an important attraction for visitors, providing nature appreciation, viewing, education, photography, and research opportunities.

Activities
Mount Robson Provincial Park includes a large and varied mountain landscape. Diverse recreation opportunities are linked to the mountainous terrain, superb wilderness qualities and wildlife and plant species. Wildlife viewing is an important part of the summer park experience. Mount Robson Provincial Park is best known for Mount Robson and Berg Lake, its highway scenery and backcountry recreation opportunities. The following tables show the range of recreation activities in the park.
### Table 9. Recreation Activities in Mount Robson Provincial Park

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>LOCATION &amp; DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DAY USE</strong></td>
<td></td>
</tr>
<tr>
<td>Short Walks</td>
<td>Overlander Falls - Fraser River – Mount Robson Viewpoint - Labrador Tea Trail - Yellowhead Lake Viewpoint - Portal Lake</td>
</tr>
<tr>
<td>Day Hikes</td>
<td>Overlander Falls to Robson Ranch - Kinney Lake – Mount Fitzwilliam Trail</td>
</tr>
<tr>
<td>Picnicking</td>
<td>Mount Robson Viewpoint; Kinney Lake shelter - Fraser Crossing - Yellowhead Lake - Portal Lake</td>
</tr>
<tr>
<td>Sightseeing/Photography</td>
<td>Along highway corridor</td>
</tr>
<tr>
<td>Wildlife Viewing</td>
<td>Mainly along highway corridor - Moose Lake marsh and on slopes below Emerald Ridge</td>
</tr>
<tr>
<td>Fishing</td>
<td>Poor to fair success at all highway corridor lakes - Sections of main rivers and streams</td>
</tr>
<tr>
<td>Horse Riding</td>
<td>Kinney Lake - Moose River</td>
</tr>
<tr>
<td>Mountain Biking</td>
<td>Kinney Lake</td>
</tr>
<tr>
<td>Heli-hiking/or Heli-viewing</td>
<td>Berg Lake</td>
</tr>
<tr>
<td>Boating</td>
<td>Limited opportunities at Moose and Yellowhead Lakes</td>
</tr>
<tr>
<td>Kayaking, rafting</td>
<td>Some opportunities on Fraser River, offered commercially</td>
</tr>
<tr>
<td>Nature and culture appreciation, photography</td>
<td>Frontcountry - nature observation throughout park - culture in Yellowhead Pass area - photography along highway corridor and main trails</td>
</tr>
<tr>
<td>Ski touring, snowshoeing</td>
<td>Kinney Lake/Berg Lake</td>
</tr>
<tr>
<td><strong>MULTI-DAY</strong></td>
<td></td>
</tr>
<tr>
<td>Hiking/Backpacking</td>
<td>Berg Lake-Mount Fitzwilliam-Moose River (rough route)</td>
</tr>
<tr>
<td>Mountaineering</td>
<td>Mainly in Mount Robson area and the Ramparts</td>
</tr>
<tr>
<td>Horse Riding</td>
<td>Berg Lake Trail (limited to commercial use) - horse use also permitted on Moose River route</td>
</tr>
<tr>
<td>Caving</td>
<td>Arctymos Cave (highly experienced cavers only)</td>
</tr>
<tr>
<td>Ski Mountaineering</td>
<td>Robson Glacier area - Tonquin Pass – Mount Fitzwilliam</td>
</tr>
<tr>
<td><strong>ACCOMMODATION</strong></td>
<td></td>
</tr>
<tr>
<td>Camping</td>
<td>Robson Meadows - Robson River - Lucerne - Group Campground</td>
</tr>
<tr>
<td>Huts</td>
<td>Ralph Forster Hut - hikers in Tonquin Valley use ACC and commercial huts (These are not in Mount Robson Provincial Park) - in turn these clients may hike into Mount Robson Provincial Park</td>
</tr>
<tr>
<td>Private Accommodation</td>
<td>Robson Ranch - Robson Shadows Campground</td>
</tr>
</tbody>
</table>
Map 8: Park Features

*See BC Parks Mount Robson Management Planning website for Park Features Map*
Facilities

**Day use Facilities**
- Main Mount Robson Viewpoint area, including Visitor Centre
- Robson Meadows Amphitheatre
- Overlander Falls day use area and trail
- Heargraves Shelter (Berg Lake Chalet), day use shelter
- Kinney Lake, Whitehorn day use shelters on Berg Lake trail
- Moose Lake boat launch
- Fraser Crossing picnic area and viewpoint
- Yellowhead Lake boat launch and picnic area
- East Portal picnic area and day use trail

**Campgrounds and Accommodation**
A total of 180 vehicle campsites plus the seven campgrounds along the Berg Lake Trail, provide the bulk of the accommodation facilities in the park. Wheel-chair accessible sites are provided in each of the vehicle campgrounds. Several less formal campsites provide opportunities for backcountry travelers, while private facilities such as Robson Ranch and Emperor Ridge campground outside the park provide cabin-style and campground accommodation.

- 7 designated campgrounds along the Berg Lake trail, each with a cluster of tent sites comprising a total of 98 available sites which are as follows:

<table>
<thead>
<tr>
<th>Campground</th>
<th>Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kinney Lake</td>
<td>14</td>
</tr>
<tr>
<td>Whitehorn</td>
<td>22</td>
</tr>
<tr>
<td>Emperor Falls</td>
<td>9</td>
</tr>
<tr>
<td>Marmot</td>
<td>7</td>
</tr>
<tr>
<td>Berg Lake</td>
<td>26</td>
</tr>
<tr>
<td>Rearguard</td>
<td>5</td>
</tr>
<tr>
<td>Robson Pass</td>
<td>15</td>
</tr>
</tbody>
</table>

- Horse corral and camping area in Robson Pass
- Ralph Forster climbing hut on the lowers slopes of Mount Robson (technical climbing access only)
- Robson Meadows Campground - 125 units
- Robson River Campground - 19 units
- Lucerne Campground - 36 units
- Robson Meadows Group Campground
- Ranger cabins at Whitehorn and Berg Lake, not open to the public

**Not located in the park:**
- Mount Robson Motor Village (private) – currently for sale
- Emperor Ridge Campground (private) -37 campsites; currently for sale
- Mount Robson Lodge/Robson Shadows campground (private) -8 units, 45 campsites
Map 9: Park Features (Inset A)

See BC Parks Mount Robson Management Planning website for Park Feature Maps Inset (A)
Map 10: Park Features (Inset B)

See BC Parks Mount Robson Management Planning website for Park Features Map Inset (B)
Roads and Trails
Although the main access to Mount Robson Provincial Park is via Highway #16, several roads extend to the boundary from outside the park. To the north, roads in two valleys permit height-of-land access to Carcajou Pass and the Smoky River Trail in Jasper National Park. From within Jasper National Park there are trails in the Smoky, Miette and Snake Indian Rivers, as well as Meadow and Tonquin Creeks; all of these trails direct horse and hiker traffic into Mount Robson Provincial Park.

Access roads to gravel pits, rights-of-way, and to Lucerne area are gated. A gated service road extends from the Robson River parking lot to Kinney Lake.

Berg Lake Trails
The world-renowned Berg Lake trails are being continuously upgraded through both staff and the Sierra Club of the U.S. volunteer projects. The trails are regularly maintained. Helicopter landings are permitted at Robson Pass on Mondays and Fridays. Hikers who wish to fly in must obtain a permit prior to commencing their hike if they plan to camp. Bicycles are allowed on the trail but only as far as the Kinney Lake campground (7 km).

- Kinney Lake Trail (2.5 hours, return): From the Berg Lake Trail parking lot, the trail winds through old-growth cedar/hemlock forest as it follows the Robson River to Kinney Lake. This gentle 4.5 km (one-way) hike offers dramatic scenery and wildlife viewing opportunities.

- Berg Lake Trail (2 days): This world-renowned trail takes hikers to some of the best scenery in the province. Beyond Kinney Lake, the trail enters the Valley of a Thousand Falls. Fed by the massive Mist, Berg and Robson glaciers, visitors often see huge sections of ice break off or ‘calve’ into the waters of Berg Lake.

- Hargreaves Lake Route (1/2 day): From Marmot campsite near Berg Lake, this route climbs to Hargreaves Lake and Glacier. From the viewpoint, the trail continues and crosses the Toboggan Falls Route on course to the Mumm Basin.

- Toboggan Falls Route (2 hours, return): From the trailhead at the Toboggan Creek Bridge near Berg Lake campground, the trail climbs to Toboggan Falls and the surrounding alpine basin. This route intersects the Hargreaves Lake and Mumm Basin routes.

- Mumm Basin Route (1/2 day): A steep alpine trail leads to views of the alpine lakes, mountains and glaciers. The trail can start or end in Robson Pass or Berg Lake campsites.

- Snowbird Pass Route (1 day): Snowbird Pass is closed May and June because of caribou calving. A challenging route marked by rock cairns, it provides views of the back of Mount Robson. From Berg Lake campsite the trip is 22 km, return.
Moose River Route (7 days): This route is suited to experienced hikers as river crossings and route finding are required. The 105 km route can be accessed via Berg Lake, through Robson Pass onto Adolphus Lake continuing on the Jasper National Park trail system. The route goes over Moose Pass back into Mount Robson Provincial Park and down the Moose River to Hwy. #6 near its confluence with the Fraser River. For day hikers, trips along this trail offer views of Adolphus Lake (7 km return, to Berg Lake) or Coleman Valley (26 km return, to Berg Lake).

Other Backcountry Trails and Routes

Mount Fitzwilliam Trail - The Mount Fitzwilliam trailhead and parking lot are located 54 km east of the Mount Robson Provincial Park Visitor Centre on Highway #16. There is a campsite 7.2 km up the trail along Rockingham Creek. Six tent pads, a pit toilet, and food cache are at this location. At km 13.5 there is a second wilderness campsite with a food cache, open pit toilet and three tent pads. There are a number of excellent day hikes available from this point.

Swift Current Creek - The first 3 km of this trail is partly on old road, then route only, on creek bed gravel flats. It is 8 km to a cabin open for public use, built by former residents of the area.

Day Use Trails

Overlander Falls trail - 500 m from trail beginning to the falls, the trail continues along the Fraser River from the Robson Meadows Campground.

Fraser River Nature Walk between Robson Ranch bridge and Overlander Falls, 2 km.

Yellowhead Mountain Trail - located 52.8 km east of the Mount Robson Provincial Park Visitor Centre, this day use trail gains 800 m in 8.5 km. There are no facilities or campsites on this 3-5 hour return trip.

Portal Lake Trail – 1 km trail.

Lucerne Campground Trail - 1 km self-guiding Labrador Tea Trail with signs.

Viewpoint Trail at the Robson Viewpoint, there are connections to the Overlander Falls trail, 2 km.

Commercial Tenures and Park Use Permits

Mount Robson Provincial Park has a long history of commercial recreation, including horse use, helicopter access/sightseeing, river rafting and guided angling and hiking. The park also has a long history of contributing to the local and regional economies by supporting commercial businesses that provide food and beverage, accommodation and recreation opportunities adjacent to the park. Current services include guided hiking and horse trips, river rafting and helicopter trips. An existing heli-skiing tenure has never been used, but there have been proposals for heli-skiing to the south of Moose Lake and
commercial rafting in areas of the Fraser River. Guide Outfitter and trapping territories encompass the Swift Current addition only (see Map 11).

Table 10: Active Park Use Permits in Mount Robson Provincial Park

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Activity</th>
<th>Permit Number</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG0010092</td>
<td>Angling Guiding</td>
<td>PG9710006</td>
<td>Utility Right-of-Way: pipeline</td>
</tr>
<tr>
<td>PG0110107</td>
<td>Miscellaneous Commercial</td>
<td>PG9710007</td>
<td>Communication Sites</td>
</tr>
<tr>
<td>PG0110120</td>
<td>Transportation (air/land/water)</td>
<td>PG9710008</td>
<td>Monitoring: snow levels</td>
</tr>
<tr>
<td>PG0310174</td>
<td>Communication Sites: radio</td>
<td>PG9710009</td>
<td>Transportation (air/land/water)</td>
</tr>
<tr>
<td>PG0510206</td>
<td>Research</td>
<td>PG9710011</td>
<td>Quarries/Sand and Gravel Pits</td>
</tr>
<tr>
<td>PG0510227</td>
<td>Collections</td>
<td>PG9710012</td>
<td>Access Roads/Trails</td>
</tr>
<tr>
<td>PG0610237</td>
<td>Operations Permits</td>
<td>PG9710013</td>
<td>Helicopter Transportation</td>
</tr>
<tr>
<td>PG0610239</td>
<td>Hiking</td>
<td>PG9710014</td>
<td>Recreational guiding</td>
</tr>
<tr>
<td>PG0610240</td>
<td>Hiking - Berg Trail</td>
<td>PG9710016</td>
<td>Mountain climbing</td>
</tr>
<tr>
<td>PG0610241</td>
<td>Hiking</td>
<td>PG9710020</td>
<td>Utility Right-of-Way</td>
</tr>
<tr>
<td>PG0610242</td>
<td>Structure</td>
<td>PG9710021</td>
<td>Communication Sites: radio</td>
</tr>
<tr>
<td>PG9710002</td>
<td>Culvert and Diversion</td>
<td>PG9710026</td>
<td>Rafting guide</td>
</tr>
<tr>
<td>PG9710003</td>
<td>Powerline</td>
<td>PG9710048</td>
<td>Guiding for rafting/kayaking</td>
</tr>
<tr>
<td>PG9710028</td>
<td>Public Telephone</td>
<td>PG9710046</td>
<td>Guided Mountain Climbing</td>
</tr>
<tr>
<td>PG9710033</td>
<td>Communication Sites</td>
<td>PG9710050</td>
<td>Research Permit</td>
</tr>
</tbody>
</table>

Hazards to Recreational Users
Mount Robson Provincial Park is a mountainous wilderness area with a characteristic range of hazards to recreational users resulting from terrain, weather conditions and wildlife encounters. Potential hazards to recreational users include bear-human conflicts, avalanches, natural dangers in caves, hazards from mountaineering and glacier travel, variable trail and road conditions.

Current Use
Mount Robson Provincial Park has a high profile in the British Columbia park system, yet is not as well known nationally or internationally as its sister national parks, Jasper and Banff. Mount Robson proper is well known globally, in climbing circles. The Yellowhead Highway and the park's proximity to Jasper and Banff national parks nevertheless guarantee an annual draw of several hundred thousand visitors.
The major categories of visitors include Highway #16 through traffic (vacationers en route or people on business), front and backcountry overnight users, day users, and destination travelers, including hikers and other backcountry travelers. A major attraction is Mount Robson proper. Winter users of the park include a limited number of cross-country and alpine backcountry skiers and mountaineers.

Ministry of Transportation figures show that approximately 800,000 vehicles per year travel through the park on the Yellowhead Highway. Up to 300,000 of these vehicles stop in the park, most often at the Mount Robson visitor centre. Campground attendance for Mount Robson Provincial Park in 2005 was 12,500 parties, with day use attracting about 88,000 parties. The Visitor Centre records about 28,000 visitor contacts yearly (many people who stop use the toilets only, or do not seek information).
Map 11: Tenures
Overnight Use: Frontcountry

Family campers, making up the majority of visitors, stop in the park while traveling through the Yellowhead Pass - close to 50% camp in July, 38% in August and about 9% in September. The length of stay pattern has remained approximately the same since 1975: the median stay is 1 night, with the majority staying 1-2 nights, and between 10-20% remaining 3-5 nights. Very few stay more than 5 nights.

A strong majority of 75% or more of the campers at Robson Meadows and Lucerne campgrounds are from BC, Alberta and the rest of Canada. Visitors from the United States account for between 6-9% and campers from overseas account for between 13-16%. The average group size ranges from 2-3, with 20% of campers in groups of 4 people. Tents are used by 35-55% of visitors, with motor homes or travel trailers accounting for more than 45% of mobile accommodation used at the Lucerne campground.

Visitors with schools, churches, tours, and outdoor recreation organizations are called group campers. Group campers comprise a relatively small percentage of overnight use. A group campground and picnic shelter is provided at Robson Meadows Group Campground.
Table 11. Visitor Profiles: 2002 Robson Meadows & 2003 Lucerne Campgrounds*

<table>
<thead>
<tr>
<th>1. Geographic Origin of Visitors</th>
<th>Robson Meadows</th>
<th>Lucerne</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Columbia</td>
<td>36.5 %</td>
<td>27.4 %</td>
</tr>
<tr>
<td>Alberta</td>
<td>35.6 %</td>
<td>41.9 %</td>
</tr>
<tr>
<td>Other Canada</td>
<td>5.8 %</td>
<td>8.1 %</td>
</tr>
<tr>
<td>Washington/Oregon/California</td>
<td>2.9 %</td>
<td>8.0 %</td>
</tr>
<tr>
<td>Other USA</td>
<td>2.9 %</td>
<td>1.5 %</td>
</tr>
<tr>
<td>Abroad</td>
<td>16.3 %</td>
<td>12.9 %</td>
</tr>
</tbody>
</table>

| 2. Repeat Visitors:             |                 |         |
| Yes                              | 45.7 %          | 33.3 %  |
| No                               | 52.4 %          | 66.7 %  |
| Not Sure                         | 1.9 %           | 00.0 %  |

| 3. Makeup of Party:             |                 |         |
| With Children                   | 34.0 %          | 41.9 %  |
| With No Children                | 66.0 %          | 58.1 %  |

| 4. Average Party Size (Median): | 2.00            | 3.00    |
| 1 One                           | 4.14 %          | 1.61 %  |
| 2 Two                           | 53.85 %         | 45.16 % |
| 3 Three                         | 11.83 %         | 22.58 % |
| 4 Four                          | 21.30 %         | 24.19 % |
| 5 Five                          | 5.92 %          | 4.84 %  |
| 6 Six                           | 1.18 %          | 1.61 %  |
| 7 Seven                         | 1.18 %          | 00.0 %  |
| 8 - 11                          | 0.00 %          | 00.0 %  |

| 5. Length of Stay (Median Nights): | 1.00            | 1.00    |
| 1 - 2 nights                     | 76.9%           | 87.1%   |
| 3 - 5 nights                     | 20.1%           | 9.7%    |
| 6 - 7 nights                     | 1.2%            | 3.2%    |
| 8 - 12 nights                    | 1.8%            | 0%      |
| 13 - 16 nights                   | 0.0%            | 0%      |
| Over 16 nights                   | 0.0%            | 0%      |

| 6. Campers using Tents Only      | 29.2 %          | 30.6 %  |

| 7. Type of Camping Equipment Used: |                 |         |
| Tent                             | 35.2 %          | 43.5 %  |
| Tent Trailer                    | 22.9 %          | 4.8 %   |
| Truck Camper                     | 9.5 %           | 3.2 %   |
| Van                              | 16.2 %          | 12.9 %  |
| Travel Trailer/5th Wheel         | 9.5 %           | 22.6 %  |
| Motor Home                       | 11.4 %          | 24.2 %  |
| Other                            | 4.8 %           | 3.2 %   |

* Data Source: BC Parks
Figure 1. Lucerne campground use from 1998 to 2005

Figure 2. Robson Meadows Campground use from 1998 to 2005
Use of campgrounds in Mount Robson Provincial Park generally declined from 1998, with lowest use in 2002, likely due to the decline in international travel after the global political events of September 11, 2001. Use has increased again since the 2002 decrease.

Use of Lucerne campground declined from a peak of more than 3,000 parties annually in 1998 to less than 2,000 in 2002. Use increased modestly through 2005 to more than 2,000 camping parties. Use of Mount Robson Meadows Campground followed a similar pattern. The Robson River campground use has remained relatively more stable, with a dip in use in 2002.

**Overnight and Day Use: Backcountry**

**Berg Lake Trail**
The Berg Lake area is recognized by visitors as a special place within Mount Robson Provincial Park where they can experience the natural heritage values and cultural traditions of Mount Robson. The visitor to this area will view and experience the most singularly spectacular peak contained in any park in Canada, from two different sides in a natural setting that is managed to maintain the integrity of its ecological processes.

Backcountry use in Mount Robson Provincial Park is concentrated in the Berg Lake area. Berg Lake is used from May through October, with July and August the peak months. This popular hiking, horseback riding (commercial use only) and mountain biking trail...
Mount Robson Provincial Park, Including Mount Terry Fox & Rearguard Falls Provincial Parks: DRAFT Background Report 2006

(lower trail only) is one of the premier routes of the Rocky Mountain parks. Prior to the 1992 Park Master Plan, about 11,400 visitors per year traveled to Berg Lake, with 250 climbing parties, 80 riding parties and 60 parties on extended trips.

From 1987 to 1991 visitation increased from 2146 to 3663 parties, a 59% increase in five years. Concerns about crowding and environmental degradation were raised as issues in the Master Plan. In 1993, user nights, rather than parties, were used to record visitation. Since then, the use has seen a gradual increase from 12,858 in 1993 to 13,660 in 1998. This stabilization in use can in part be attributed to a quota system for overnight use which was initiated in 1997. The use for 1999 dropped to 11,762 which can mainly be attributed to poor weather.

Since 1998, the number of camping parties at Berg Lake per year has averaged about 4,000, while day visits have ranged from 11-15,000 parties annually, with recent peak use in 2000. During the 1998 season 43,193 day users hiked part of the Berg Lake Trail and 45,843 users were recorded in 1999. Over-all use has ranged between 14-16,000 parties per year. There is no camping data for 2004 & 2005, so overall use during those years is not available. Many people reaching Berg Lake will take day trips to the Robson Glacier-Snowbird Pass area, and the Hargreaves-Toboggan Falls-Mumm Peak area.

Concern about preserving the environmental and social integrity of the Berg Lake area in light of increasing use resulted in several studies being conducted on the trail during the past 20 years. In response to the recommendations in the 1992 Mount Robson Master Plan, the Berg Lake Corridor Plan was completed. The plan includes management strategies for assessing carrying capacity, means of controlling numbers, specific trail and facility planning and development; day hiking opportunities from Berg Lake, horse use on the trail, a reservation system for the Robson Pass horse camp, and firewood use (Ross 2000).

Today the Berg Lake trail has a quota system in place with reservations accepted by phone. Presently, 98 tent pads are found along the Berg Lake Trail. An established overnight capacity has been determined based on the number of developed tent pads. Through the establishment of a maximum capacity, the intent is to ensure that visitors continue to enjoy their backcountry experience in an “uncrowded setting”. The 98 site quota and reservation system were initiated in 1997. 25% of the backcountry campsites are available through reservation; the remaining 75% are available on a first come-first serve basis.

There are few facilities along the trail. All campsites have food caches, pit toilets, washbasins and grey-water pits. There are no showers, no flush toilets and no fires allowed. Camp stoves are mandatory for cooking. For overnight trips, dogs are not permitted on the trail. Dogs are permitted on the trail for day hikes only, but must be on a leash. There is no charge to day hike on the trail but there is a trail fee charged for those choosing to camp overnight.
Figure 4. Berg Lake backcountry use from 1998 to 2005

Figure 5. Mount Robson Provincial Park backcountry use from 1998 to 2003
Horseback use on the Berg Lake trail, limited to commercial operators, has declined. Horseback rider/hiker/mountain biker conflicts and safety issues, environmental impacts, and user expectations are a management concern on the Berg Lake-Kinney Lake trail.

Winter use levels on the Berg Lake trail are not known, but some adventurous parties ski up to the chalet each year. The trail to Kinney Lake is popular with local skiers who take advantage of the warming shelters located at both the trailhead and the lake. The “near-wilderness” atmosphere, associated with Kinney Lake, make it a very attractive destination. Avalanche slopes are a winter safety hazard on the Berg and Kinney Lakes trails.

Back-country group campers may be people organized by local guides and special interest groups (Alpine Club of Canada, schools, outdoor recreation groups, etc.). School groups hold the greatest number of group camps in a normal year, with horse-back riders organized by local guides comprising a smaller percentage. School groups use the park mainly in June, during the school year. Party size ranges from 10-15 people. In the backcountry, groups are accommodated at Kinney Lake, Whitehorn, and Robson Pass.

**Other Backcountry Trails**

Use of the Moose River trail is limited to those seeking a week or more of hiking or riding in a wilderness with no facilities. These routes may be used to connect to Jasper National Park, for example to Smokey River or Amethyst Lakes. In 1989, a total of 223 parties, or about 500-600 people registered for backcountry use outside of the Berg Lake area. Backcountry travel started in June and extended to October. During the peak season of June-August there were approximately 100-150 people at any given time in the Mount Robson Provincial Park backcountry, outside of the Berg Lake area. About 450 people per year used these trails as shorter day use trips.

Backcountry use outside of the Berg Lake area appears to have declined in recent years, with less than 300 parties in 2002. Visitor use statistics show a steep decline after 1998 to a low in 2000, followed by a modest increase to current levels.

**Day-Use**

Since the 1990’s trail improvements, day use of the Berg Lake area has become possible and this is reflected in the higher number of day users today. It is feasible for fit individuals with light day packs to hike to the Berg Lake vicinity and back in 9-10 hours, and using a bike/hike combination, in 7-8 hours. Most people with overnight packs take 7-9 hours for the trip in. Backcountry day travel has also been promoted with the use of helicopters to drop off passengers in the Berg Lake area. These visitors then hike out in 4-7 hours.

Day users include those passing through the park by train, Highway #16 through-traffic, or vacationers en route elsewhere. Local people from Jasper, Valemount, McBride and the local area also use the park on a day use basis. Day users engage in sightseeing,
picnicking, fishing, hiking, mountain biking, nature observation, interpretation activities, birding or photography.

In the late 1980’s, the main Mount Robson viewpoint had about 300,000 visitor days per year, with Rearguard Falls (outside the park) receiving 12,000-15,000 parties (about 30,000 people). Visits to the Mount Robson viewpoint appear to have declined since 2000, dipping to around 100,000 visitors in 2005. Visits to Rearguard Falls remain at approximately 30,000 visitors annually. The East Portal recorded about 30,000 visitors in 2005.

Travellers on Via passenger trains have minimum first-hand experience with Mount Robson Provincial Park and its facilities, yet they do garner an appreciation of the scenic beauty of the park and surroundings.

Sightseers are usually family groups on holidays. These visitors consist of picnickers, photographers, hikers, fishermen and others who spend some time in the park to appreciate its natural, historical and recreational values. Most sightseers visit the viewpoint at the Information Centre (operated in conjunction with B.C. Tourism) and utilize park facilities (picnic tables, water, toilets, and nearby services). Indeed, the largest number of viewpoint users are people in private vehicles. Also included in this group are people who visit the park via numerous organized bus tours.

Anglers are also day-users. They travel through the park in one day, but may spend considerable time hiking and fishing. Day-use areas such as Yellowhead Lake, Moose Lake, or Portal Lake may be starting points for their pursuits. Local people frequently fish in the park, particularly before or after peak tourist season.

Day hikers and mountain bikers use the park’s shorter routes such as the Kinney Lake trail, Overlander Falls or the Robson Viewpoint loop trail. These users may be passing through the park in one day or may have camped in the park to engage in day activities before or after their overnight stay.

Heli-sightseers and heli-hikers are day users who fly from either Valemount or Robson Ranch up the Valley of a Thousand Falls to Berg Lake. Some stop at Berg Lake and hike down the valley. Short trips are arranged from Valemount, with some departures from Robson Ranch. Heli-hiking landings are permitted only on Mondays and Fridays during the peak season.
Figure 6. Day use by Visitor parties to Mount Robson Viewpoint between 1989 and 2004

Figure 7. Day use by Visitor parties to Rearguard Falls between 1989 and 2005
Facilities in Rearguard Falls and Mount Terry Fox Provincial Park

- Mount Terry Fox day use trail from Hwy. #5, trail route from Hwy. #16 has been investigated, river crossing and terrain difficulties
- Rearguard Falls trail, interpretive signs

Facilities Outside Mount Robson Provincial Park

- Lost Lake Trail, on Hwy. #16 east of Tete Jaune Cache
- Holmes River road extending close to park boundary
- Ptarmigan Creek logging road, proposed to extend near park boundary

Services, Campgrounds and Accommodation

- Mount Robson Motor Village, gas, food, souvenirs
- 95 private campsites at Robson Shadows, Emperor Ridge and Robson Ranch campgrounds
- Motels in Tete Jaune Cache, Valemount, Jasper
- Backcountry hut at headwaters of Dave Henry Creek
- Hut on Swift Creek
- Cabin on Swift Current Creek (status and location unknown)

Viewpoints and Day Use Areas

- Rearguard Falls day use area
- Mount Terry Fox Viewpoint and Picnic Area on Hwy. #16
- Mount Terry Fox Viewpoint and Picnic Area on Hwy. #5

Inholdings

Mount Robson Provincial Park has been an important transportation corridor for over a hundred years, resulting in many varying land rights and uses throughout. Early attention to tourism and the recreation features of the park resulted in private lots and rights of way.

No mineral claims are located in the park. There are no trapping or guide-outfitting territories except in the Swift Current addition and in Terry Fox Provincial Park. Water rights are held by CN Railway, Kinder Morgan Canada, Thomas Carr and the Ministry of Environment.

Eight parcels of land are held in fee simple ownership by Kinder Morgan Canada and C.N. Railway. Fifteen separate rights-of-way agreements are in place for C.N. Railway, Kinder Morgan, B.C. Hydro, Telus and the Ministry of Transportation. All rights-of-way are in the highway corridor.
References Cited


Ministry of Environment and Parks. Park Data Handbooks.


Ministry of Lands, Parks and Housing. 1974b. Mount Robson Provincial Park - Flora and Fauna Reports.


Vold, C. Habitat Assessment Report Mount Robson Provincial Park. Ministry of Lands, Parks and Housing, Parks and Outdoor Recreation Division, Prince George, B.C.


