

Mount Robson Park Management Plan

Part of the Canadian Rocky Mountain Parks World Heritage Site



United Nations Educational, Scientific and Cultural Organization

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Canadian Rocky Mountain Parks World Heritage Site since 1984

Parcs des montagnes Rocheuses canadiennes Site du patrimoine mondial depuis 1984





This management plan replaces the 1992 Mount Robson Provincial Park Master Plan and the 2005 Mount Robson Provincial Park (Swift Creek Addition) Purpose Statement and Zoning Plan. Mount Robson Park Management Plan

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Executive Summary

Mount Robson Park is one of British Columbia's oldest and best known provincial parks. In recognition of its natural heritage and its outstanding value to humanity through its contribution to the protection of the largely undisturbed wilderness of the Rocky Mountains, it is part of the Canadian Rocky Mountain Parks World Heritage Site. Although there is a major transportation corridor running through the middle of the park, the park contributes significantly to the protection of representative examples of British Columbia's diverse ecosystems.

Mount Robson Park protects a variety of landscape features and offers diverse recreation opportunities. It serves an important tourism role for travellers on the Yellowhead Highway, and is a destination mountain wilderness park for visitors and regional residents. It conserves special features such as the headwaters of the Fraser River, the highest peak in the Canadian Rockies (Mount Robson), the deepest cave in North America north of Mexico (Arctomys Cave) and the Yellowhead Pass National Historic Site.

Recognizing that environmental, social and economic considerations need to be considered in the park's management, an ecosystem-based management approach will be used in Mount Robson Park. The development of the management plan occurred over a three-year period between 2006 and 2009 and incorporates a set of performance measures to guide BC Parks in the implementation of the management plan.

A key initiative proposed in Mount Robson Park is to develop a cultural interpretation program with supporting infrastructure to be operated by the Simpcw First Nation. This facility will provide socio-economic benefits to the Simpcw First Nation while providing a high quality cultural experience for park visitors.

This management plan updates the 1992 Mount Robson Provincial Park Master Plan. The management direction provided in this management plan will assist park managers to conserve the values in Mount Robson Park for people to enjoy today and into the future.

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1 Introduction

1.1 Management Plan Purpose

This management plan defines the role of Mount Robson Park in the British Columbia protected areas system and establishes objectives and strategies to guide management and development.

This management plan replaces the 1992 Mount Robson Provincial Park Master Plan and draws from various documents and reports including the Mount Robson Park background reports (1991 and 2006), the Mount Robson Ecosystem Based Management Plan (1996, updated 2001), and the Forest Health Strategy for Mount Robson Park (updated 2005).

1.2 Management Planning Process

The management planning process occurred between the summer of 2006 and the summer of 2009. The background report was drafted in November 2006 and formed the information resource base for the production of the management plan. A series of consultation sessions with park use permit holders, individuals and organizations that expressed an interest in the management planning process occurred in the summer and fall of 2006. Public open houses were conducted in February 2007 and the draft management plan was posted on the BC Parks website for review and comment in Spring 2007 and Fall 2008. First Nations consultation occurred throughout the management planning process and the Simpcw First Nation contributed to the content.

1.3 Background Summary

Mount Robson Park was established in 1913 to protect the mountains in the vicinity of Mount Robson for public enjoyment. It was the second provincial park established in the province. In 2000, 5,956 hectares were added to the park in the Swift Current Creek area expanding the size of the park to more than 224,000 hectares.

The park lies in the central Rocky Mountains on the Alberta-British Columbia border, next to Jasper National Park, 300 kilometres east of Prince George and 450 kilometres west of Edmonton (see Figure 1). The Yellowhead Pass, located on the east side of the park, provides a key trans-provincial transportation corridor that bisects the park. This route connects Kamloops, Prince George and Mount Robson in British Columbia with the Rocky Mountain national parks and Edmonton in Alberta. Although remote areas of the park can also be accessed via the backcountry of Jasper National Park at a number of passes along the Alberta-British Columbia border, the Yellowhead Highway (Highway #16) provides the

primary means of access to the park. The transportation corridor also contains a railway right-of-way, a fibre optics line, and a buried pipeline.

Mount Robson Park and other contiguous parks in Alberta and British Columbia encompass a large natural area that protects an almost complete cross section of the Rocky Mountains. Together with Mount Assiniboine and Hamber provincial parks and Jasper, Banff, Yoho and Kootenay national parks, Mount Robson Park encompasses internationally significant wilderness and wildlife habitat designated as a World Heritage Site by the United Nations Environmental, Scientific and Cultural Organization (UNESCO).

First Nations traditional use within the park is well documented and a number of known archaeological sites associated with traditional activities are dispersed throughout the park. First Nations regard the park as a sacred and spiritual location, placing major emphasis on sustaining the important cultural aspects of the area for future generations of their people.

1.4 Relationship to Other Planning Processes

1.4.1 Robson Valley Land and Resource Management Plan

The 1999 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. Developed through a local planning process and in consultation with various sectors, the plan 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 LRMP divides the plan area into 23 resource management zones (RMZs), four of which border on Mount Robson Park. The specific management plan. The Robson Valley LRMP approved the addition of the Swift Current Creek headwaters area to the park, and directed that established hunting and guide outfitting activities in that area should be allowed to continue.

1.4.2 Jasper National Park

The continental divide forms the boundary between Mount Robson Park and Jasper National Park. The management of Mount Robson Park is affected by conservation and recreation factors in Jasper National Park such as ecosystem health, migrating wildlife, forest health, and the proximity of destination recreation features. 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 Park, are among the most heavily used areas in Jasper National Park backcountry. Robson Pass, north of Berg Lake, is also a destination for Jasper National Park users.



Figure 1: Regional Context Map

The management plan for Jasper National Park places 97% of its land area 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 the park's ecosystems and call for few rudimentary services and facilities. In much of Zone II, visitors have the opportunity to experience remoteness and solitude. Motorized access is not permitted.

The critical valley bottom in the national park where high ecological, wildlife and recreation values intersect with the transportation corridor and other human developments is identified by Parks Canada as the Montane Ecoregion. This area covers about seven per cent of Jasper National Park and extends to the eastern gate of Mount Robson Park. This is not a formal management zone but is shown to draw attention to the limited amount of montane land that remains undeveloped. Parks Canada will continue to emphasize the importance of maintaining the integrity and critical ecological role of the Montane Ecoregion. Actions will include research, restoration, management of human use, and public education. Priority areas for grizzly bear management in Jasper National Park extend to the boundary of Mount Robson Park, generally south of the Highway #16 corridor.

1.4.3 UNESCO Canadian Rocky Mountain Parks World Heritage Site

Under an international treaty, the United Nations Educational, Scientific and Cultural Organization (UNESCO) promotes the identification, protection and preservation of cultural and natural heritage around the world considered to be of outstanding value to humanity. Since 1990, Mount Robson Park has been a component of the UNESCO Canadian Rocky Mountain Parks World Heritage Site, a status that both distinguishes the park and sets a high expectation for its conservation and general management as part of a global trust. Among other activities, UNESCO encourages participants in the World Heritage Sites program to establish management plans and set up reporting systems on the state of conservation of their World Heritage Sites. It also supports public awareness-building activities for World Heritage Site conservation, and encourages participation of the local population in the preservation of their cultural and natural heritage.

1.5 Relationship with First Nations

The provincial government and First Nations governments in British Columbia are working together to develop a new relationship founded on respect, recognition and reconciliation of Aboriginal rights. The traditional territories of the Simpcw First Nation (a division of the Shuswap Nation Tribal Council), the Lheidli T'enneh Nation and the Red Bluff Indian Band are within the Robson Valley area (see Figure 2). As such, this management plan recognizes the importance of the natural and cultural heritage values within Mount Robson Park to these First Nations. Ongoing collaboration will occur with respect to the management of the park's natural and cultural heritage and recreational features through First Nation

involvement in annual management planning and project specific management and planning. This may in time be formalized in an agreement.

1.6 Relationship with Local Governments and Communities

The communities in the Robson Valley and Mount Robson Park have a reciprocal relationship in that the communities provide important services to visitors and park management; and the park attracts tourists to the region contributing to the tourism economy. It is important for park staff to build cooperative relationships with the communities of Valemount, Tete Juane, McBride and Jasper.

2 Park Attributes

2.1 Provincial and Regional Context

Mount Robson Park fulfills important conservation, recreation and cultural roles in the provincial protected areas system. Along with Mount Assiniboine and Hamber provincial parks and Jasper, Banff, Yoho and Kootenay national parks, it is part of the Canadian Rocky Mountain Parks UNESCO World Heritage Site. Adjoining the World Heritage Site are Alberta's Willmore Wilderness Park, Peter Lougheed Provincial Park, and Kakwa Wildland Park, as well as Kakwa, Mount Terry Fox, Height of the Rockies and Elk Lakes provincial parks in British Columbia. Together, these units comprise one of the largest contiguous mountain park complexes in the world. Other large protected areas in relatively close proximity to Mount Robson Park include Bowron Lake, Cariboo Mountains and Wells Gray provincial parks to the west. All of these areas protect regional biodiversity and ecological representation, provide varied mountain recreational opportunities and preserve cultural heritage features of national, provincial and regional importance.

Mount Robson Park, along with Jasper National Park and Willmore Wilderness Park in Alberta, form the protected core of a Yellowhead ecosystem that straddles the continental divide and covers an area of 68,000 km². 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 along the North Saskatchewan River west of Rocky Mountain House, Alberta. 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.

Located on the Alberta border and bisected by the major Yellowhead Pass national railway, highway and utilities corridor, Mount Robson Park is the only large provincial park situated at an important gateway to British Columbia. With the highest peak in the Canadian Rockies as a major attraction, travellers can be dramatically introduced, not only to this large "flagship" wilderness provincial park, but also to the values of the broader protected area system and to the tourism opportunities of the province as a whole.

The park is subject to high through-traffic volumes along the Yellowhead Highway #16, but it is distant from larger population centres. The communities of Valemount and McBride to the west and Jasper to the east are relatively close. Alberta's capital, Edmonton (715,000 population) is about 400 km east. Prince George, with a population of 72,500, lies approximately 280 km west of the Mount Robson Park, while Kamloops (85,000 population) is 325 km to the south.

2.2 Roles of Mount Robson Park

2.2.1 Conservation Role

The primary conservation role of Mount Robson Park is to provide significant representation of the Northern Park Ranges Ecosection¹ and key biogeoclimatic sub-zone variants² (see Appendix A) within the internationally significant Canadian Rocky Mountain Parks World Heritage Site. The park protects 32% of the Northern Park Ranges Ecosection. The park also



protects 96% of the mm2 sub-zone variant of Englemann Spruce-Subalpine Fir biogeoclimatic zone, and 100% of the dh2 sub-zone variant of the Sub-boreal Spruce biogeoclimatic zone in British Columbia. In addition, the recent Swift Current Creek addition increased representation of the mm1 sub-zone variant of the Englemann Spruce-Subalpine biogeoclimatic zone, a variant with only 2.97% protected in the provincial protected areas system.

Mount Robson Park protects a diversity of wildlife and habitat for wide-ranging species at risk, such as bighorn sheep and grizzly bears, as well as other species, including mountain goat, woodland caribou, wolf, and wolverine. Lower elevations, including those within the Swift Current addition, provide important winter range for ungulates (moose, deer, and elk). The park is also a component of one of the largest contiguous mountain park complexes in the world.

Special natural features of provincial and national significance found within Mount Robson Park include:

- Mount Robson, the highest peak in the Canadian Rockies (3,954 metres) and an internationally recognized symbol of the Canadian Rockies;
- Arctomys Cave, currently the deepest known cave in North America north of Mexico (526 metres);
- the headwaters of one of the world's great rivers and most important sockeye salmon rivers in North America, the Fraser;

¹ The Ecoregion Classification System of British Columbia delineates ecosystems based on climatic and physiographic variation. There are 10 ecoprovinces, 43 ecoregions and 116 ecosections in the province.

² Biogeoclimatic (BGC) units represent classes of ecosystems under the same regional climate. There is a hierarchy of units with the biogeoclimatic subzone being the basic unit. The 76 subzones are grouped into 14 zones and divided into variants and phases, based on similarities and differences in regional climate.

- the western side of the Yellowhead Pass, at 1,131 metres, the lowest crossing of the Continental Divide in the Canadian Rockies south of 54 degrees latitude; and,
- some of the oldest whitebark pines in Canada (800 years), in the Giekie Creek area of the park, near Bennington Glacier (Luckman and Colenutt, 1988).

2.2.2 Tourism and Outdoor Recreation Role

Mount Robson Park plays a unique tourism and outdoor recreation role as the only large wilderness park in the provincial protected areas system that serves as a gateway to British Columbia on a high-volume, national transportation corridor. The corridor affects the

wilderness qualities in the park; however, it provides easily accessible opportunities for use and appreciation for park visitors. Mount Robson Park's gateway location, accessibility, history and outstanding natural and cultural heritage features combine to make the park a "flagship" of the provincial protected areas system. It is a key location for promoting appreciation of the conservation values protected and the recreation and tourism



opportunities provided by the park itself and by the entire provincial protected areas system. As an attractive initial stop for westbound traffic entering British Columbia, it is also a prime site for distributing general travel information about the province and encouraging people to increase their stay in the Robson Valley area. The Mount Robson Park Visitor Centre plays a crucial part in supporting the park to achieve its tourism and outdoor recreation role.

As part of the larger destination area including Banff and Jasper national parks, the park accommodates a wide range of both local and tourist use, including day stops and family holidays, horse or helicopter-supported backcountry camping, extended backpacking and advanced mountaineering. Specific opportunities for outdoor recreational use and appreciation include day and overnight hiking, fishing, rafting, boating, nature and cultural heritage appreciation, viewing from vehicles and trains, horseback riding, mountain biking, camping, mountaineering, cross-country skiing and ski touring.

2.2.3 Cultural Heritage Role

Mount Robson Park plays a nationally and provincially significant cultural heritage role in protecting and interpreting elements of three major themes:

 <u>First Nations' use</u>: The park retains a strong cultural and traditional significance to First Nations. The use of the area between Tete Jaune and Jasper house by the Simpcw First Nation is well documented in the written record. The written record for the Fort George Carrier (Lheidli T'enneh) suggests their hunting grounds extend as far east as the Rockies.

- 2. The <u>Yellowhead Pass as a nationally significant transportation corridor</u>: The pass has played a major role as a travel route through the Rocky Mountains for First Nations, fur traders, explorers, early tourists, railways and the Yellowhead Highway. The park protects a number of relics of many of these activities.
- 3. <u>Mount Robson's history as a focal point for early mountain recreation</u>: Attempts to climb the highest peak in the Canadian Rockies added momentum to the establishment of mountain parks and contribute a colourful dimension to the history of Mount Robson Park.

Although some site-specific information is provided for cultural heritage themes through the Yellowhead corridor, the Mount Robson Park Visitor Centre at Robson River is the focal point in the park for interpreting these themes, as well as for presenting other park and tourism information.

Economic Opportunities

Operators presently provide services within the park for activities including angling, hiking, horse riding, mountaineering and helicopter transportation. Operators adjacent to the park also provide camping, fuel and grocery services for park users. The frontcountry campground and day use services are provided by a park facility operator under permit. As discussed in the Guided Recreation section of this management plan (see section 3.6.11), additional opportunities to provide services to park visitors may be identified within and outside the park.





Figure 2: First Nations Consultative Areas Map

2.3 Management Issues

The following table outlines key management issues that are addressed in this management plan.

Theme	Issue
Natural Values Management	 Understanding the potential impacts of climate change on park ecosystems and determining what, if anything, should be done to minimize the impacts on less resilient species. Protecting species at risk. Implementing and adapting the forest health strategy to reflect changes in the ecosystem and values at risk. Reducing wildlife mortality in the transportation corridor. Minimizing the distribution of non-native and invasive species.
Recreation Values Management	 Maintaining a high quality and safe backcountry experience on the Berg Lake trail and providing opportunities to enjoy wilderness experiences on the Mount Fitzwilliam Trail and the Moose River Route. Optimizing recreation opportunities while mitigating potential impacts from possible fixed roof accommodation in the Berg Lake corridor. Ensuring public and guided recreation is compatible with park natural value objectives and impacts reduced. Reducing impacts of recreation use on natural values.
Cultural Heritage Values Management	 Protecting known and potential archaeological and cultural heritage sites. Respecting First Nations' aboriginal rights and special relationship to the area, while providing opportunities for public enjoyment of the natural features.
Land Use and Interests Management	 Implementing an ecosystem-based management approach and integrating with other agencies. Mitigating the impacts from the Kinder Morgan pipeline expansion.
Public Safety	• Reducing the wildfire hazard to park facilities and nearby communities (30% of the park is rated moderate to high wildfire hazard).

3 Management Direction

The purpose of this section is to set out the management objectives for the natural, cultural and recreation values in Mount Robson Park. Each of the objectives is accompanied by one or more strategies that will contribute toward achieving that objective. Management objectives and strategies are intended to contribute towards achieving the vision for the park.

3.1 Vision Statement

As a flagship park in British Columbia's protected areas system, Mount Robson Park symbolizes the best the province offers in internationally significant features and ecosystem protection, heritage appreciation and scenic outdoor recreation. As a component of the Canadian Rocky Mountain Parks World Heritage Site, the management of Mount Robson Park will use an ecosystem-based management approach with an emphasis on landscape connectivity, which includes a greater understanding of First Nations' interests, and interagency cooperation.

Collectively, all British Columbians and park users appreciate, respect and protect the park's natural and cultural values as a trust to be enjoyed, and as a legacy to be passed on to future generations.

3.2 Ecosystem-Based Management

Ecosystem-based management is a holistic approach to managing natural values that integrates ecological, social and economic considerations into management decisions. There are many definitions of ecosystem-based management; however, there is a common understanding that a landscape level approach³ is used to sustain ecosystem processes while incorporating the best existing ecological knowledge with human considerations (e.g., social and economic considerations such as protecting facilities and adjacent commercial forests from wildfire). Ecosystem-based management in Mount Robson Park will be based on the following set of principles:

- Ecological function is maintained and conserved within a dynamic and changing environment.
- Ecological boundaries are considered when making management decisions.

³ A landscape level approach is one that considers ecological processes at the landscape scale such as evolution, the movement of organisms, and ecosystem development.

- Ecological, social, economic, and traditional knowledge considerations are integrated recognizing that humans are part of the ecosystem.
- Inter-agency cooperation is essential given that ecosystems extend beyond jurisdictional boundaries.
- The practice of adaptive management is emphasized.

The Robson Valley Land and Resource Management Plan emphasizes the importance of an ecosystem-based management approach to land and resource planning. Park managers regularly discuss land management initiatives in the Yellowhead ecosystem with a number of individuals and organizations. In order to manage the values in the park with an emphasis on a greater ecosystem-based management approach, staff must continue to work closely with adjacent land managers.

Much has been learned since the development of the ecosystem management plan in 1996 (updated in 2001). This management plan incorporates a set of key performance indicators based on an ecosystem-based management approach as a tool to implement and evaluate key management objectives and strategies in an adaptive management process.

The following sections will clarify how the conservation of biodiversity and climate change considerations fit within the ecosystem-based management approach.

3.2.1 Conservation of Biodiversity

British Columbia is the most biologically diverse province or territory in Canada. The conservation of this rich biodiversity means that ecosystem, species, and genetic diversity and the processes that shape them are maintained over the long term. The province is managing biodiversity conservation at the landscape scale by protecting large, connected areas of the land base distributed across the province and managed with consideration of adjacent values. At the species and communities level, British Columbia uses various decision support tools maintaining its rich biodiversity.

A number of plant and wildlife species and ecological communities at risk are found within Mount Robson Park and will be highlighted in the Aquatic and Terrestrial Ecosystem sections of the management plan. It is important to use the appropriate tools to inform managers and practitioners of the most appropriate management actions for these species and ecological communities.

3.2.2 Climate Change

Global climate change will continue to alter regional weather patterns, hydrology and vegetation, with resulting effects on British Columbia's biodiversity and on human activity. The best chance for the future of biodiversity in this era of rapid climate change is to allow the greatest freedom for organisms to move, evolve and reassemble. Given the uncertainties inherent in climate change predictions and the response of biodiversity to the changes combined with serious biodiversity knowledge gaps, a landscape connectivity

approach is required. British Columbia has protected more than 14% of the land base, with more than half of the protected land in very large, connected protected complexes. Mount Robson Park is part of one of the largest protected complexes in British Columbia, stretching across the BC-Alberta border and running down the spine of the Rocky Mountains from Kakwa Park in the north to Height of the Rockies Park in the south. At the species and

community level, the highest priority species and ecosystems likely to be sensitive to a changing climate will be monitored. Regular updates on distributions and trends of species and ecological communities will allow us to respond rapidly with appropriate conservation measures. At the protected area level, ongoing monitoring of key environmental elements and the rate at which they are changing can help managers identify and assess management options to maximize adaptation opportunities and minimize negative climate change impacts on the parks.

Particular priorities within Mount Robson Park's ecosystem-based management approach include: identifying species and ecosystems management priorities and conservation actions; cooperative management initiatives with surrounding land management agencies (e.g., Parks Canada,



relevant British Columbia government agencies, and the Regional District of Fraser-Fort George); and biological inventories and long-term monitoring that track the effects of human activity and climate change. Without this information, park managers will be unaware of such effects and may well forgo options to avoid irreversible impacts such as the loss of species.

Management Objectives	Management Strategies
Manage values in the park based on a broader ecosystem-based	 Continue to implement the inventory, monitoring and research actions in the Ecosystem Management Plan (2001).
management approach.	 Manage to maintain ecological and evolutionary processes such as natural disturbance regimes, fluvial processes, nutrient cycles, and biotic interactions including predation.
	 Maintain close liaison with Parks Canada, provincial land and resource management agencies and private groups to conserve spatial connectivity and biodiversity values in the Yellowhead Ecosystem.

Management Objectives	Management Strategies
	 Provide sustainable recreational, tourism and natural resource uses of the park within the framework of ecosystem management practices. Integrate traditional knowledge assessment into project proposals wherever feasible. Encourage governments at First Nations, federal, provincial, and local levels to use an ecosystem-based management approach. Use appropriate tools to identify priority conservation actions for all known species and ecological communities at risk. For species at risk listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) found within the park, work with other agencies in the development and implementation of recovery strategies. Ensure that any management of plant and animal species at risk present.
Gain a better understanding of the effect of climate change on ecosystems.	 Identify potential vegetative changes caused by climate change using appropriate tools. Collaborate with other agencies to supplement understanding of climate change effects in the park. Identify species sensitive to the potential negative effects of climate change and identify options for managing those effects. Continue monitoring glacial recession of the Mt. Robson glacier.

3.3 Aquatic Ecosystems

3.3.1 Water

Mount Robson Park protects the headwaters of the Fraser River. The Robson and Moose rivers, flowing north to south, are both Fraser River tributaries found within Mount Robson Park. The protection of these rivers and other high quality water resources is an important component of the conservation and recreation role of the park.

The annual May or June spring flood which accompanies the alpine/subalpine snowmelt is the major hydrological event in the park. Climate change factors such as glacial recession, mountain pine beetle, and altered temperature, rainfall and snowfall patterns may affect water quantity and quality throughout the park. There is an opportunity to use Mount Robson Park as a research laboratory to better understand the impacts of climate change on water resources.

Permits for water licences are held by CN Rail and Kinder Morgan Canada. Water is also extracted from the Fraser River to provide for park visitor services. As such, the quantity and quality of water is important for social, economic and ecological purposes.

Management Objectives	Management Strategies
Protect and maintain the quantity and quality of water resources in the park.	 Ensure that recreational activities and supporting facilities do not compromise water quality. Develop contingency plans with the Provincial Emergency Program (PEP), CN Rail, Kinder Morgan Canada and the relevant provincial government agencies to address accidental spills along the travel corridor.
Gain a better understanding of the impacts of climate change on water resources.	 Encourage monitoring activities associated with assessing changing hydrological conditions due to climate change. Encourage academic institutions and other interested parties to study the long-term effects climate change may have on water resources in the park and the subsequent effect these changing conditions may have on ecosystems.

3.3.2 Wetlands

Wetlands are important habitat for a variety of species especially waterfowl, migratory birds and fish. As nature's filters, wetlands hold water during periods of high water and release water during drier spells. The Moose Marsh is the most significant wetland complex within the park; however, other small pockets of wetlands are found along the Fraser River and in side drainages.



Baseline documentation of all the wetlands in the travel corridor occurred in 2004 and 2005 by Terasen Pipelines Inc. (now Kinder Morgan Canada) in connection with the TMX Anchor Loop Project (see section 3.10). This study classified all wetlands in the travel corridor, provided habitat and ecological function information, and concluded that transportation infrastructure had altered natural hydrologic function of affected

wetlands. Kinder Morgan Canada's post-wetland monitoring program will document the effect of pipeline construction, restoration and operation on three elements of wetland function: hydrologic regime, water quality and habitat.

Management Objectives	Management Strategies
Protect the Moose Marsh and other wetland areas as important wildlife habitat.	 Work with Kinder Morgan Canada during the post- construction wetland monitoring program to ensure wetland function is maintained. Monitor the impacts of the changed hydrologic regime in the travel corridor on wetlands. Implement best management practices in the transportation corridor to minimize impacts on this unique aquatic ecosystem.

3.3.3 Fish

The lakes and streams within Mount Robson Park support a number of fish species including rainbow trout, lake trout, bull trout, burbot, lake chub, mountain whitefish, northern pikeminnow, sculpins, suckers, and chinook salmon. Moose and Yellowhead lakes and a number of smaller lakes, creeks and streams have native fish populations, while Witney and Portal lakes are regularly stocked with rainbow trout. A few chinook salmon manage to pass Rearguard Falls, located 10 km east of the park; however, Overlander Falls in the park is the final impassable barrier for salmon travelling up the Fraser River.

Bull trout are a blue-listed species at risk located in the park south of Moose Lake in the Fraser River. They are not immediately threatened or endangered, but are considered to be a species of special concern. The genetic structure of bull trout populations suggests that many populations have a history of isolation and limited genetic diversity (McPhail and Baxter, 1996; cited in Cannings and Ptolemy, 1998⁴). Lack of diversity leaves populations less resilient to changes in their environment, especially rapid change. As a result, bull trout are particularly sensitive to human activities and natural events that lead to changes in temperature, substrate composition, and habitat complexity (Rieman and McIntyre, 1993; cited in Cannings and Ptolemy, 1998⁵).

During baseline environmental studies for the TMX Anchor Loop pipeline, an unauthorized introduction of non-native brook trout was discovered in a tributary of Yellowhead Lake. The potential spread of this non-native species poses a significant threat to the bull trout and is also considered a threat to other native species in the system. Provincial government staff are working to



⁴ Cannings, S.G., and J. Ptolemy. (1998). *Rare Freshwater Fish of British Columbia*. BC Ministry of Environment, Lands and Parks, Victoria, BC.

⁵ Ibid.

determine the scope of the introduction and to remove brook trout from the area. The continued monitoring and mitigation of non-native species impact on native species in Mount Robson Park is essential.

Management Objectives	Management Strategies
Maintain viable native fish populations in the park while enhancing fish stocks in Portal and Witney lakes.	 Conduct fish and fish habitat inventories (with emphasis on species at risk and non-native species). Reduce or eliminate the distribution of non-native fish species. Increase public awareness on the hazards of introducing non-native fish stocks to natural ecosystems. Evaluate and consider future replacement of all stream crossing structures that are barriers to fish passage. Limit stocking to Portal and Witney lakes with rainbow trout and investigate opportunities for natural stock enhancement in Moose and Yellowhead lakes. Monitor and assess the success of management activities through creel surveys.

3.4 Terrestrial Ecosystems

3.4.1 Geology

About 200 million years ago, tectonic plate movement lifted the ocean bed to form mountains. These mountains were later shaped into their present form as the Canadian Rockies by glacial activity in the ice ages. Many fossils from the Precambrian period can be found within the strata of these mountains. Within the park, shelly fossils (*Namacalathus*)



and *Cloudina*) of the first hard-bodied life have been discovered near Mount Salient in the Late Proterozoic carbonate Byng Formation. Other fossils from the same period, bacterially-formed stromatolites and soft-bodied animals termed Charniodiscus also occur in the park.

The park also includes a number of other geological features which merit protection and public appreciation. These include Mount Robson as the highest peak in the Canadian Rockies, the Valley of a Thousand Falls, and Arctomys Cave. Arctomys Cave was discovered in 1912 and is the deepest Arctomys limestone solution cave in North America north of Mexico. The cave extends 536 metres and contains a long series of steeply inclined tunnels and chambers, some with intricate calcite formations.

Management Objectives	Management Strategies
Study, interpret and protect the special geological features in the	• Encourage research on the geological features of the park. Key features include: caves, landslides, rock glaciers and fossils.
park.	 Manage recreational activities and development to have minimal impacts on geological or palaeontological features, such as fossils, caves and other potentially sensitive elements.

3.4.2 Vegetation

Vegetative communities are the basis for wildlife habitats and contribute to the visual and recreational attractions of the park. Mount Robson Park contains four of the province's fourteen biogeoclimatic zones and encompasses some special vegetation features, such as the oldest known whitebark pine in Canada. Natural disturbance processes, such as fire, disease and insect outbreaks, are fundamental in maintaining the complex forest ecosystem; however, management is required to safeguard important recreation values, facilities and commercial forest interests on adjacent lands.

As defined within the Mount Robson Ecosystem Management Plan, there are four different ecosystem management zones within the park. The ecosystem management plan outlines

objectives and actions for each zone pertaining to biodiversity conservation, fire, forest health, and wildlife. Many of the objectives and actions pertain to conducting inventory, monitoring, and research work in the park and are still relevant. Other objectives and actions pertain to the use of prescribed fire and selective tree removal to deal with forest health and fire risk issues. These objectives and actions have been updated in the Forest Health Strategy for Mount Robson Park (updated 2005).



The Forest Health Strategy was developed by a working group consisting of representatives from B.C. Government, Parks Canada, Alberta Ministry of Sustainable Resource Development and Natural Resources Canada. The management objectives in the strategy include:

- Reduce mountain pine beetle infestations within the park and mitigate its spread to Jasper and Alberta;
- Reduce wildfire threats to park visitors and facilities and adjacent communities; and,
- Maintain biological processes within the park.

Several proposed projects in the Forest Health Strategy have been completed. These include the Moose Lake burn, the Lucerne selective tree removal project, the Swift Current Creek and Yellowhead West firebreaks, and annual fall and burn treatments. There are several proposed burns that have not been completed. Based on the success of the above projects, which have reduced the wildfire threat and brought the seral stage distribution across the landscape close to biodiversity target ranges⁶, the proposed burns have been postponed and need to be re-evaluated in 10 to 15 years. The working group, however, should evaluate the overall strategy on a regular basis.

Haller's apple moss is a provincially red-listed species (endangered or threatened species) and is listed as threatened under the Federal *Species at Risk Act*. There is one known site in Mount Robson Park where Haller's apple moss occurs and two sites adjacent to the park (one on private land and one in Jasper National Park). The site within Mount Robson Park is known as the Fitzwilliam Spur. A recovery team has been formed, comprising members from Parks Canada, the British Columbia Government, and the University of Alberta. BC Parks will work with the recovery team to help protect this species.

At least eight provincially blue-listed (species of special concern) vascular plant species occur within the park: Anemone canadensis, Botrychium boreale, Draba cinerea, Epilobium ciliatum ssp. watsonii, Epilobium hornemannii ssp. behringianum, Erigeron lanatus, Erigeron trifidus, and Salix petiolaris. Of these, B. boreale and S. petiolaris are found within all four ecosystem management zones. Management strategies employed should evaluate and integrate the specific ecosystem requirements of these species at risk.

A number of non-native plant species threaten the natural distribution of native plant species. The travel corridor is the main conduit for non-native species to spread into the park; however, one must also account for changes in the distribution of non-native plants as a result of climate change. An integrated agency approach is required to reduce the impact non-native plant species have on native plant species and to develop a strategy for dealing with the changing vegetation structure due to climate change.

Management Objectives	Management Strategies
Maintain the long-term natural diversity of native plant species.	 Ensure the known population abundance of the Haller's apple moss is maintained through threat mitigation and monitoring actions consistent with the recovery strategy. Continue with the inventory, monitoring and research actions identified in the Ecosystem Management Plan. Give priority to plant species and communities at risk.

⁶ As outlined in, Beaudry, L., & Thornton, D. (2007). Moose Lake Prescribed Fire Analysis for Burn Induced Vegetation Changes. P. Beaudry and Associates Ltd for British Columbia Ministry of Environment.

3.4.3 Wildlife

Mount Robson Park is home to a large variety of wildlife species including ungulates, large carnivores, small mammals, raptors, waterfowl, songbirds, and a host of invertebrate species. Large carnivores such as wolf, black and grizzly bears are present within the park. Ungulate species present include moose, mountain goat, Rocky Mountain elk, woodland caribou northern ecotype, mule deer and white-tailed deer. As part of a larger protected

area complex, it is essential that the movement of wide-ranging species is maintained to promote genetic diversity and the long-term viability of populations.

Significant wildlife management issues in the park include: wildlife mortality along the travel corridor, allowing for the movement of wide ranging species across jurisdictional boundaries, preventing human/wildlife conflicts, and protecting wildlife species at risk such as woodland caribou and grizzly bear. Also of importance is gaining a better understanding of harlequin duck habitat use on the Fraser River, and of mountain goat population and habitat use.

It is important to note that an annual "bird blitz" has occurred in Mount Robson Park since 1982. This has become a popular event and provides long-term trend data on the diversity of bird species in the park. Approximately 170 different bird species have been recorded.

Management Objectives	Management Strategies
Maintain and protect	Continue to implement the wildlife management actions
the natural diversity of	and wildlife inventory, monitoring and research actions
wildlife species and	in the 1996 Ecosystem Management Plan. Give special
populations.	attention to caribou, grizzly bear, harlequin duck and
	mountain goat.
	Continue to implement recommendations from the bear
	hazard assessment report and follow the BC Parks'
	Bear/Human Conflict Prevention Plan to reduce conflicts
	between bears and park visitors.
	Work with Jasper National Park and other agencies to
	protect migration corridors for wide ranging species such
	as caribou and grizzly bear.
	Continue to monitor and evaluate ungulate mortality
	along Highway #16 and the railway and assess ungulate
	migration routes. Work with the relevant provincial
	government agency and CN Rail to reduce ungulate
	mortality.
	Regulate domestic animals where necessary to protect
	park wildlife values (e.g., exclude dogs from overnight
	use of the Berg Lake corridor; and exclude domestic pack
	animal use other than horses to avoid possible
	transmission of disease to park wildlife).
	 Continue to support the annual Bird Blitz and make the
	data accessible to the public and institutions for
	-
	monitoring and assessing trends.

3.4.4 Visual Landscape Features

The scenery in and around Mount Robson Park is fundamental to the visitor's experience. It is a particularly strong component along the transportation corridor and through the Berg Lake Trail corridor. Superb mountain scenery is one of the most common reasons why people visit the Rocky Mountain parks, and Mount Robson 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 pullouts 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. Management in the Berg Lake Trail Corridor and the transportation corridor must ensure that the naturalness of the visual features is maintained.

Management Objectives	Management Strategies
Retain views in and out of park so that the visual qualities and wilderness atmosphere of the park are protected.	 Provide input into plans by other resource agencies and industry for activities outside but visible from the park in order to protect the visual values of the park from impacts of adjacent uses. Work with other agencies including Parks Canada, the relevant provincial government agencies, the Regional District of Fraser Fort George, CN Rail, Telus, BC Hydro and Kinder Morgan Canada to minimize visual and environmental impacts of activities such as logging, gravel pits, development of private land, particularly where scenic values are considered important.

3.5 Cultural Heritage Values

Mount Robson Park has three primary cultural heritage themes:

- First Nations use and traditional significance;
- The Yellowhead Pass as a nationally significant transportation corridor; and,
- Mount Robson's history as a focal point for early mountain recreation.

3.5.1 First Nations

Archaeological evidence and ethnographic record show that the Yellowhead Pass was an important route for moving trade goods across the mountains, from interior and coastal regions to areas east of the Rocky Mountains as well as a place for food, social and ceremonial harvesting by First Nations. The seasonal round of First Nations was linked to the availability of food and would have determined their location at any given time. House depressions, cache pits and depressions, and basalt flakes have been found along the Yellowhead Pass and Tete Jaune Cache corridor.

A Brief History of the Tqeqeltk-mec (now Simpcw) People

The Tqeqeltk-mec people once lived in the Tete Jaune to Jasper House area. They were referred to as the Upper North Thompson Band in written record. After many of the Tqeqeltk-mec people died of small pox in the late 1800s, the remaining families moved to the Chua Chua Reserve near Barriere, B.C. and amalgamated with the North Thompson Band now the Simpcw First Nation. The Simpcw First Nation, especially the direct descendents of the Tqueqeltk-mec people, still have a deep connection to the land in and around Mount Robson Provincial Park. This connection is well captured by Simpcw Elder Ida

Matthew's opening remarks at a Kinder Morgan Canada pipeline meeting in 2005:

"... our ancestors have lived in the Tete Jaune and Jasper areas for thousands of years. The remains of ancient houses are still found on the Fraser River Bank. The bones of our forefathers are buried there. The spirits of those people still live there. Our people lived in that area because the land was plentiful. The river gives us clean water to drink and salmon every year. The mountains provide deer and elk and small game. Our people understood the gift that the land has given us. The creator gave us this land to share and enjoy forever, not to destroy. We in turn, were given the responsibility to look after the land, forever. We are its caretakers, its stewards..."

(Information compiled by Harry Jules, 2009)

First Nations 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 perished. Today, the natural values in the park remain an integral part of the food, social and ceremonial harvesting and cultural activities of First Nations.

3.5.2 Yellowhead Pass

The Yellowhead Pass National Historic Site was designated by the Historic Sites and Monuments Board of Canada in 1971. This commemorative designation formally recognizes the historic (First Nation and post-contact) significance of this major transportation corridor. The site contains numerous archaeological and historical sites. The boundary follows the existing Highway #16 and Canadian National Railway routes through Jasper National Park, over the Alberta-British Columbia border into Mount Robson Park and terminates at the Fraser River crossing, immediately west of Yellowhead Lake.

First Nations have used the travel corridor for centuries and after 1825, it became a key trans-mountain transportation route to the fur trade country of the upper Fraser River and New Caledonia. In 1872, the Yellowhead Pass was selected as the route for the new transcontinental railway but it was abandoned in 1881 in favour of the more southerly

Kicking Horse Pass route. Two new transcontinental railway companies, the Grand Trunk Pacific and the Canadian Northern Railway, built lines through Yellowhead Pass between 1906 and 1915. These companies merged in 1917 under the pressures of low revenues and high construction costs and by 1919, the federal government had absorbed their assets into the Canadian National Railway. The first automobiles passed through the Yellowhead Pass in the early 1920's; however, it was not until the late 1960s that motorists were able to drive all the way from Jasper to Vancouver on paved roads.

Cultural sites found within the Mount Robson Park portion of Yellowhead Pass National Historic Site include archaeological sites, traces of the fur trade, abandoned sections of the two early railroads, early railway bridge crossing abutments, ice storage sheds, an old bridge, railway station locations, roundhouse foundations, construction camp ruins, graveyard, Summit City ruins, and remnants of the Japanese-Canadian internment road camp.

3.5.3 Early Mountain Recreation

The person for whom Mount Robson was named is not officially recorded. Whatever the source of its name, the "Monarch of the Canadian Rockies" has been a magnet for skilled mountaineers since it was first observed by Europeans.

Several attempts to climb Mount Robson were made between 1906 and 1909 but were thwarted by weather and logistics. In 1911, as railway construction crossed the Yellowhead Pass, A.O. Wheeler of the Alpine Club organized a major summer expedition to the Berg Lake area which resulted in the ascent of Whitehorn Mountain by Conrad Kain and the discovery of Arctomys cave by Reverend G.R.B. Kinney. As a result of this exploratory

expedition, the influential Wheeler initiated a campaign to have the area designated a provincial park and to have a trail constructed from the railway to Berg Lake. The trail was duly completed by Donald Phillips, and the park was dedicated in time for the Alpine Club's Berg Lake camp in the summer of 1913. It was during this summer that W.W. Foster, A.H. McCarthy, and Conrad Kain became the first to successfully climb Mount Robson.



As with other early British Columbia mountain parks, Mount Robson Park owes its establishment to the influence and enthusiasm of well-connected recreational mountaineers. The history of their activities underscores the high recreational appeal of the province's great natural area parks from their inception, as well as the constantly changing context of human activity on the land that has ultimately made such areas accessible to broad public enjoyment and appreciation.

Management Objectives	Management Strategies
Work closely with First Nations in managing and protecting the natural and cultural heritage values within the park.	 Continue to engage in collaborative management discussions with First Nations. Promote research with First Nations to increase the knowledge and understanding of pre-contact history of the area. Work with First Nations to identify previously unknown First Nations traditional use sites. Such sites will not be identified on any public park literature without the consent of First Nations, develop educational and information material on the park's pre-contact cultural heritage values, focusing on themes of traditional areas, use of resources and trade with other First Nations. Recommend that First Nations are represented on the Minister's committee to determine the best use of the Mount Robson Park World Heritage Endowment Fund revenue (see section 3.7).
Ensure First Nations have the ability to share their culture with park visitors and use this opportunity as an economic opportunity.	 Continue to work with First Nations to develop cultural heritage interpretation material. Jointly seek funding opportunities to construct a pit house and outdoor cultural interpretation area close to the Visitor Centre. Partner with the Simpcw First Nation to deliver cultural heritage interpretation programs. Consider partnering with Tourism BC and the park facility operator to promote cultural heritage programming.
Protect and where appropriate interpret the historical features of the Yellowhead Pass National Historic Site.	 Encourage historical research within the park and investigation of any additional historical remains discovered. Conduct archaeological impact assessments and apply management measures (i.e., buffering, avoidance, access controls, signs, mitigation, restoration, etc.) where appropriate. Where cultural heritage values are deemed to be of provincial or national significance, higher levels of protection and intervention may be required.
Management Objectives	Management Strategies
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	• Ensure any works or activities related to cultural heritage features abide by the <i>Heritage Conservation Act</i> .
Recognize and interpret the role early mountain recreation had on the establishment of the park.	 Encourage historical research on early mountain recreation in the park. Partner with the Alpine Club of Canada to interpret early mountain recreation in the park.

3.6 Tourism and Recreation Management

3.6.1 Access

The primary access to Mount Robson Park is Highway #16, which bisects the park from east to west, running through the Yellowhead Pass and along the Fraser River. Along this travel corridor are a number of viewpoints, interpretive stops, picnic sites, campgrounds and boat launches. Numerous trails and routes leave the travel corridor, providing the main access to Mount Robson and to the backcountry interior of the park.

Logging roads in adjacent valleys, cross boundary trails and aircraft access to designated sites provide secondary access to the park. Access from logging roads and cross boundary trails requires monitoring to assess use levels and impacts to park management objectives. Aircraft access management and potential stewardship initiatives to control sightseeing over flights are discussed below.

All terrain vehicle and snowmobile uses are not permitted in the park.

Aircraft Access

Aircraft arrival or departure in Mount Robson Park, with the exception of floatplane access to Moose Lake for arrival and departure, is prohibited except as authorized by a valid park use permit (Schedule A of the *Park, Conservancy and Recreation Area Regulation*). BC Parks will monitor the floatplane use of Moose Lake and work with the B.C. Floatplane Association to ensure ecological and recreation values are protected.

In the Berg Lake corridor, public landings are restricted to the Robson Pass and flight paths, time and days of flights are prescribed in park use permits (Monday and Fridays between 8 a.m. and 5 p.m. from the May long weekend to September 20). General sightseeing flights are not within park manager's jurisdiction. Park managers work closely with local helicopter companies to establish stewardship guidelines that are linked to park use permits. Heli-skiing is addressed in section 3.6.10.

Management Objectives	Management Strategies
Provide high quality recreation opportunities along the travel corridor.	 Work with the relevant provincial government agency to ensure management of the highway right of way is conducted in a manner consistent with a park setting. Maintain high quality facilities along the transportation corridor.
Minimize the impact helicopters have on desired backcountry experiences and wildlife.	 Continue to authorize air access by helicopter, via designated routes to designated landing sites by park use permits. Continue to work with companies who fly over the park to control noise and disruption to wildlife and park users through the development of stewardship guidelines. Consider formalizing aviation stewardship guidelines through the development of an aviation management plan. Continue to monitor helicopter schedules, routes and altitudes to ensure that visual and sound impacts on wildlife and recreational quality are within acceptable limits, and revise as necessary. Continue to use air access for management and emergency operations in a way that will minimize impacts on wildlife and backcountry recreationists.
Encourage compatible management of the roads and trails providing access to Mount Robson Park.	 Coordinate with Jasper National Park with respect to the management of access via the Smoky River, Calumet River, and Tonquin Valley routes into the park. In particular, ensure close communication regarding public safety closures for bears or other reasons. Coordinate with the British Columbia Forests, and Recreation Sites and Trails agencies on the management of roads, trails, and trailheads on Crown lands that provide access to the park, particularly in the upper reaches of Ptarmigan Creek.

3.6.2 Front Country Camping

Providing a high quality and diverse frontcountry camping experience is essential for attracting visitors to Mount Robson Park. Currently, the park has three campgrounds with a total of 180 vehicle accessible campsites and one group campsite. The campgrounds are: Robson Meadows and Robson Rivers both located in the core visitor services area; and Lucerne located near Yellowhead Lake. All campsites exceed, or are close to capacity, on weekends and holidays throughout the summer months.

Lucerne is the first campground encountered by travelers entering British Columbia on Highway #16. The location of Lucerne campground serves visitors to Mount Robson Park as well as some visitors to Jasper National Park. The high occupancy at Lucerne provides an opportunity to show visitors the range of activities that exist within Mount Robson Park and the Robson Valley.

Management Objectives	Management Strategies
Provide high quality and diverse frontcountry camping experience that keeps with the park's natural setting.	 Monitor campground use through satisfaction surveys, comments and user trends to determine future frontcountry camping needs. Based on survey results and trends, assess ways to diversify the frontcountry camping opportunities by offering new services and, in some cases, separating service types. Conduct a cost benefit analysis and impact assessment for developing more sites in Lucerne campground to increase camping opportunities. Develop and inform campers of day-use activities and visitor services available inside the park and in nearby communities with the intent of increasing visitor length of stay.

3.6.3 Backcountry Recreation and Accommodation

Backcountry Recreation

Mount Robson Park contains three main areas providing backcountry recreation opportunities. These areas incorporate the Berg Lake Trail, Mount Fitzwilliam Trail, and the Moose River Route. Each area offers a different type of wilderness experience. The Berg Lake Trail is a world-class backcountry experience in a scenic Rocky Mountain setting with a



high level of management activity. The Mount Fitzwilliam Trail provides a more remote wilderness experience with a moderate level of management activity. The Moose River Route provides a solitary wilderness experience with a low level of management activity.

The Berg Lake Trail is a relatively accessible backcountry experience and is a good introduction to backcountry camping and hiking. Currently, there is a

cap of 75 campsites that can be used at any one time. This is to maintain a desired backcountry experience and minimize impacts to the environment. There are a large

number of facilities on the trail designed to accommodate a moderate level of use in an environmentally sensitive manner. Food lockers and poles, tent pads and picnic shelters are provided. Management actions are high and will focus on education, bear-human conflict prevention, providing and maintaining recreational services, ensuring public safety and monitoring and mitigating impacts to the environment.

The Mount Fitzwilliam Trail and associated campsites at Rockingham Creek and Fitzwilliam Creek receive a moderate to low level of use; however, a growing footprint has been observed at the Fitzwilliam Creek site. This is partly due to the lack of tent pads and support facilities. Management actions will focus on monitoring the impacts and providing primitive support facilities to minimize the impact to the environment.

The Moose Valley Route and associated camping areas receive a low level of use. There are also high wildlife values associated with the valley. Management actions will be minimal and will concentrate on monitoring recreational impacts on the environment.

Fixed Roof Accommodation

In the fall of 2006, Robson Pass was identified by the Province as a potential site for a backcountry accommodation facility as part of the Province's fixed roof accommodation policy.⁷ This area was chosen as it is a previously impacted site and is beyond the main backcountry camping destination at Berg Lake. Other potential fixed roof accommodation locations along the Berg Lake Trail are deemed inappropriate.

During the consultation period of this management plan, there were concerns over the potential impacts a fixed roof accommodation facility at Robson Pass may have on park values. Specific concerns included: potential increase in helicopter use for maintenance purposes and user access; increased use on the Berg Lake Trail impacting the wilderness experience; and the potential negative ecological footprint of the hut itself. In order to address these specific concerns, proposals at Robson Pass will also be required to meet the following criteria:⁸

- Visitors to, and maintenance of, the facility will be subject to the existing helicopter restrictions for the park (see section 3.6.1);
- The proponent will work with the Province to assess ways to minimize the impacts to visitor experience on the Berg Lake trail.; and,
- The proponent will work with the Province to assess ways to minimize or reduce the overall footprint at Robson Pass.

⁷ For more information on the Fixed Roof Accommodation Policy visit the BC Parks website.

⁸ These criteria are in addition to the rigorous criteria contained in the fixed roof accommodation policy.

Management Objectives	Management Strategies
Provide a diversity of	Incorporate the specific Robson Pass fixed roof
facilities that support a	accommodation criteria into the review of any fixed roof
range of backcountry	accommodation proposals at Robson Pass.
recreation experiences	If a fixed roof accommodation is approved, monitor the
while conserving the	use of the facility and the impact on visitor experience
parks natural and	and re-evaluate the Berg Lake Corridor quota after three
cultural heritage values.	years. A working group with representatives from BC
	Parks, academia, professional biologist, commercial
	recreation and public interest will conduct the re-
	evaluation. This group will use the concept of limits of
	acceptable change to identify appropriate natural and
	social conditions and how a specific quota will assist in attaining those conditions.
	 If a fixed roof accommodation is approved at Robson Pass and/or the Berg Lake Corridor quota changes,
	update the Berg Lake Corridor Management Plan to
	reflect those changes.
	 Continue to monitor the camping impacts to the
	environment on all three backcountry corridors through
	the use of the BC Parks' Backcountry Recreation Impact
	Monitoring process.
	Continue to educate visitors about minimum impact
	camping, hazard awareness, public safety and how to
	minimize bear-human conflicts.
	Continue to restrict dogs from overnight excursions on
	the Berg Lake trail.
	Continue to restrict campfires in the backcountry; except
	within a firepit provided by BC Parks.
	Monitor use levels on Mount Fitzwilliam and Moose
	Valley corridors and, if necessary, implement quota
	systems to maintain the desired wilderness experience
	and environmental conditions.
	Formalize wilderness campsites at Mount Fitzwilliam to
	manage impacts.

3.6.4 Day Hiking

Mount Robson Park offers a variety of hiking opportunities. Apart from travellers who enjoy the park scenery while passing through the Yellowhead corridor by train or along Highway #16, day users include vacationers en route elsewhere who may stop briefly or campers engaging in day activities and people from local communities of Jasper, Valemount, and McBride. Most trail use in the park occurs along the highway corridor and is associated with

other activities such as sightseeing, picnicking, fishing, hiking, biking, nature observation, interpretation activities, birding or photography.

A number of day hiking opportunities provide readily accessible facility-oriented activities along the transportation corridor. Three other trails (the Yellowhead Lake Viewpoint, the Lower Mount Fitzwilliam Trail, and the Berg Lake Trail to Kinney Lake) provide visitors with a semi-remote wilderness experience.

Management Objectives	Management Strategies
Provide a range of day hiking opportunities	Continue to ensure that adequate direction signs and information appropriate to the anticipated wars are
accessible from the	information appropriate to the anticipated users are provided on all trails and routes.
transportation corridor.	Work with adjacent land management agencies to
	ensure cross-boundary trailhead information is
	consistent with the BC Parks management direction.

3.6.5 Angling

Recreational angling in Mount Robson Park and the Valemount area is limited due to the low productivity of the cold and silty lakes and streams (see section 3.3.3). To provide more opportunities, Portal and Witney lakes have been enhanced through stocking.

Management Objectives	Management Strategies
Provide angling opportunities for park visitors without detriment to native fish populations.	 Direct angling to Portal and Witney lakes through information and better access. Encourage angling guide permit holders to emphasize a catch and release fishery. Encourage angling guide companies to provincial government agencies in inventory and elimination of nonnative fish stocks (i.e., eastern brook trout).

3.6.6 Boating

Boating opportunities within Mount Robson Park include motorboating, rafting, sailboating, kayaking and canoeing. Limited motorboating takes place on Moose Lake and on the east section of Yellowhead Lake. Both of these locations have boat launches and limited day use facilities. Rafting and kayaking occur on the Fraser River below Moose Lake and commercial rafting takes place below Hargreaves Road. Canoeing is a suitable activity in the protected waters of Yellowhead Lake and Moose Marsh and on the Upper Fraser from Yellowhead to Moose Lake. Care must be taken to ensure that the wildlife, particularly nesting waterfowl, using Moose Marsh are not disturbed.

Management Objectives	Management Strategies
Provide boating activities consistent with the natural setting of the park.	 Encourage canoeing and kayaking on Moose and Yellowhead lakes. Permit motor boating on Moose Lake and the east section of Yellowhead Lake. Consider restrictions on the type of motor and horsepower limits to protect wildlife and for public safety. Encourage boating opportunities in the park by enhancing the facilities and services at Moose and Yellowhead lakes. Investigate the appropriateness of rustic backcountry style campsites along the south shore of Moose Lake. Open the west end of Yellowhead Lake to boating pursuant to the installation of a new bridge. Ensure access to Yellowhead Lake adjacent to the Lucerne Campground is restricted to boat access via shallow water approach north of the campground. Assess opportunities for floating, kayaking and canoeing upstream from Moose Marsh. Work with federal agencies to restrict use of the Fraser River and Moose Marsh to non-motorized watercraft (e.g., rafts, canoes and kayaks). Continue to permit commercial rafting use on the Fraser River below Hargreaves Road. Monitor non-commercial rafting use on the Fraser River inside the park and regulate access if necessary. Work with federal agencies to prohibit the use of personal watercraft (e.g., jet skis) and jet boats within the entire park.
Minimize boat traffic disturbance on wetland inhabitants, especially during periods when birds are courting, nesting, and feeding fledglings.	 Provide educational information regarding the importance of the Moose Marsh wetlands to prevent harassment of wildlife. Monitor boat use and behaviour of boaters in Moose Marsh wetlands, and assess impacts on nesting and migrating birds. If the monitoring of use indicates potential negative effects on birds, undertake actions to mitigate these effects including seasonal closures, and develop a performance indicator to increase the importance of the issue.

3.6.7 Horse Use

Historically, horses have been an important means of travel through Mount Robson Park. However, conflicts with other users have occurred in the past, despite segregation of hiking and horse travel in key locations along the Berg Lake trail. Horse use is only allowed in appropriate locations to avoid overuse or damage. Currently, only one park use permit for guided horse use is permitted on the Berg Lake trail. All other horse use is directed to the Moose River Route. No horse use is permitted in the Upper Resplendent Creek.

Management Objectives	Management Strategies
Provide horse use opportunities that have minimal impact on the environment or conflict with other users.	 In cooperation with horse users, develop primitive facilities that are consistent with the management objectives and strategies in this management plan as necessary to protect the environment. Monitor horse use and routing management direction and regulations to ensure consistency with adjoining jurisdictions. Continue the closure on non-guided horse use in the Robson River drainage (Berg Lake corridor). Continue to provide a corral at Robson Pass for horses accessing the area from Jasper National Park and the Moose River Route. Limit horse use on the Berg Lake trail to a single park use permit. Set the number of horse days and trail rest days to allow for both pedestrian and horse traffic and to protect the trail. Continue to upgrade and separate trails as necessary to limit impact. Direct all other horse use to the Moose River route noting the management intent in this area is to provide a solitary wilderness experience with a low level of management activity and use.

3.6.8 Mountain Biking

Mountain bikes are permitted on two trails within the park: the Berg Lake Trail to Kinney Lake and the Mount Fitzwilliam Trail to Rockingham Creek Campsite. These trails are wide enough to accommodate multi-use. Management actions will focus on monitoring impacts and highlighting trail etiquette.

Management Objectives	Management Strategies
Provide opportunities	Continue to allow mountain biking on the Mount
for mountain biking that	Fitzwilliam Trail to Rockingham Creek Campsite and the
have minimal impact on	Berg lake Trail to Kinney Lake (the exact location is
the environment or	determined in the Berg Lake Corridor Management Plan).
conflict with other users.	Close all other trails to mountain biking.

Management Objectives	Management Strategies
	 Examine feasibility of developing mountain bike routes using existing roads and rights of ways such as the Kinder Morgan Pipeline right of way, historic roads and abandoned railway rights of way in areas that do not provide high quality wildlife habitat. Increase cycling education in conjunction with Cycling BC and local groups through signs and provide information at the Visitor Centre to highlight trail etiquette. Monitor environmental and social impacts and adjust use if necessary (e.g., trail improvements or further restrictions on bike use).

3.6.9 Mountaineering and Caving

Mount Robson, the dramatic "Monarch of the Canadian Rockies," has attracted mountaineers for many decades. A successful climb of Mount Robson is recognized as a respectable North American mountaineering achievement, and this prominence provides substantial promotion of mountaineering as a recreation activity in the park. In addition to Mount Robson, the Ramparts offer spectacular climbing opportunities.

Mount Robson Park also houses the deepest cave presently known to exist in Canada and the United States. Arctomys Cave holds some attraction to both domestic and international cavers, but it receives only very light use, largely owing to its remote location. Caving is not promoted in the park; however, it is recognized as an appropriate activity.

Management Objectives	Management Strategies
Continue to provide opportunities for challenging mountaineering.	• Ensure emergency response pre-plans for the safety of mountaineers in the park are prepared and updated annually, consistent with the mutual aid search and rescue agreement between Jasper National Park and BC Parks.
Continue to recognize opportunities for recreational and exploratory caving.	 Encourage cavers to communicate with park managers about any caving activity, and add to knowledge of the park's cave resources by sharing any cave surveys, inventory and exploration information relevant to the park. Monitor caving use and the associated impact in Arctomys Cave. If impacts increase, implement restrictions and/or best practices to protect this cave. Work with British Columbia Cave Rescue (Provincial Emergency Program) and Jasper National Park to ensure that emergency response pre-plans for the safety of cavers in the park are prepared and updated annually.

3.6.10 Winter Recreation

Winter activities represent a small segment of recreational use in Mount Robson Park. With the rugged terrain and the corresponding susceptibility of avalanches, opportunities are limited to cross-country skiing, backcountry skiing, and snowshoeing in relatively few suitable areas. Private cabins outside the west boundary of the park serve as the bases for most of the backcountry skiers.

Management Strategies
 Enforce the prohibition on the public use of snowmobiles in the park. Closely monitor impacts of winter helicopter use at Berg Lake on wildlife and visitor experiences. If necessary, extend current restrictions on flight paths, timing and landing sites to cover winter helicopter use (see section 3.6.1). Close the park to any new heli-skiing activities and evaluate the viability of the existing heli-ski tenure over Mount Longstaff when the tenure expires in 2012. Continue liaison with the Canadian Avalanche Association and Parks Canada with respect to providing up-to-date avalanche bulletins and education. Support backcountry ski-touring in the park by providing pre-trip and on-site information about general conditions and suitable routes. Assess supply and demand for cross-country ski trails
 Assess supply and demand for cross-country ski trails and supporting facilities in the overall Jasper to Tete Jaune area, and consider developing new opportunities in suitable areas accessible from the highway corridor.

3.6.11 Guided Recreation

Guided recreation is an important component of the province's tourism industry and is a major contributor to the British Columbia tourism economy. Guided recreation activities considered appropriate in Mount Robson Park include hiking, camping, canoeing, kayaking, angling, interpretive services, horse trips, and river rafting, as well as helicopter access services, the existing heli-ski tenure, guide outfitting in the Swift Current Creek addition and the provision of certain types of fixed roof accommodation. To ensure the integrity of the park and the quality of recreational experiences for both guided clients and the public, the level of guided services in the park will depend upon the type of activity, the duration, timing, size of group and the area in which this activity occurs. Management must assess whether the guided activity is appropriate in the specific management zone, and whether the desired experience in the specific management zone will be compromised.

Management Objectives	Management Strategies
Allow existing and new	 Consider management zone and desired experience
guided recreation services	when assessing new and/or changes to existing guided
in the park where	recreation permits. Establish a monitoring program of recreation use
compatible with the	impacts using limits of acceptable change or similar
ecological, cultural	processes. Work with operators to collect data, and develop
heritage and recreational	stewardship programs and a 'Code of Conduct' for their
objectives.	businesses while operating within the park.

3.7 Management Services

The management of Mount Robson Park is carried out in accordance with the *Park Act*, the *Park, Conservancy and Recreation Area Regulation* and the established policies and procedures of the Ministry of Environment. BC Parks is responsible for managing the park. Staff are based out of the Visitor Centre at Mount Robson Park and in Prince George. Delivery of frontcountry operations and maintenance is provided by park facility operators under a park use permit. Volunteers also play an important role in the delivery of park services, and in conducting monitoring and research activities.

Kinder Morgan Canada, in connection with the pipeline expansion (see section 3.10), has established a park benefit program consisting of:

- A donation of \$350,000 to support initiatives identified by BC Parks for Mount Robson Park; and
- A donation of \$2.2 million for ecological improvement projects in Mount Robson and Jasper National parks.

The province has invested the \$350,000 in a Mount Robson Park World Heritage Endowment Fund and Kinder Morgan Canada is leading a process to provide recommendations on the best use of the \$2.2 million for ecological improvement projects. The endowment fund is locked for 10 years at which time the Minister responsible for the *Park Act* may appoint a committee to determine the best use of the endowment revenue. These programs present an opportunity to leave a legacy of ecological improvement and park stewardship in Mount Robson Park.

Management Objectives	Management Strategies
Continually improve	Work with the park facility operator to identify
visitor service delivery.	opportunities to enhance high quality recreation
	opportunities and to establish cost neutral operations.
	Continue to provide important visitor information at all
	access and departure locations and points of interest.

Management Objectives	Management Strategies
	 Work with local communities and Jasper National Park staff to identify visitor opportunities adjacent to the park. Use the Mount Robson Park World Heritage Endowment Fund as leverage to attract more donors. Continue to encourage the use of volunteers and academic research to supplement management activities and services.
Maintain a park office in the Visitor Centre and provide logistically suitable backcountry accommodations for field staff.	 Continue to provide field staff accommodations on the Berg Lake Trail to provide high quality services. Continue to have on site management presence to improve visitor information services and linkages to local communities.

3.8 Visitor Information

Mount Robson Park represents an exceptional opportunity to educate and inform the visitors to British Columbia and the people of British Columbia. It is a World Heritage Site located on a trans-provincial highway that offers an awe-inspiring view of the highest peak in the Canadian Rocky Mountains. The park can play a key role in welcoming visitors to British Columbia, providing tourism information, and informing visitors about the significance of British Columbia's protected areas system.

In the Mount Robson Park Visitor Centre, the park has a building specifically intended to deliver visitor information on Mount Robson Park, the BC Parks' system and British Columbia. There is a Memorandum of Understanding in place between Tourism British Columbia and BC Parks regarding operation of the visitor centre to ensure a coordinated approach to the delivery of visitor services. The visitor centre is in an ideal location at the park's western entrance, plainly visible from Highway #16, immediately adjacent to the Mount Robson Viewpoint and within walking distance of campgrounds, restaurant and store. Open to the public from approximately May to October, the visitor centre houses a booking office for accommodations throughout the province, the registration centre for the Berg Lake trail, human and natural history displays and staff offices. Although some more site-specific material is presented at other stopping points along the transportation corridor, the visitor centre is the focal point for communication of Mount Robson Park's flagship role and provincial gateway function.

Management Objectives	Management Strategies
Provide accurate, comprehensive information to visitors in order to: heighten public awareness regarding Mount Robson Park and its role in the conservation of special natural and cultural features; inform about visitor opportunities and facilities; and assure	 Collaborate with adjacent jurisdictions and operators in the park to develop a communications and marketing plan for joint delivery that will heighten public awareness of Mount Robson Park and its role as a World Heritage Site. Continue to provide interpretive programming in the park for visitors. Provide contemporary, accurate information relative to park opportunities, services, trails and facilities for display on websites and through key outlets as identified in the management plan. Increase the profile of Mount Robson Park as a World
visitor safety.	 Heritage Site through regional and provincial initiatives. Provide important visitor information at all access and departure locations and points of interest.
Improve the effectiveness of the park Visitor Centre for delivering information on Mount Robson Park, the BC protected areas system, and tourism in British Columbia.	 Ensure the Memorandum of Understanding between Tourism BC and BC Parks is continued and supported. Maximize the use of display material in the visitor centre to promote and attract visitors to the park and the province.

3.9 Land Uses and Interests Management

3.9.1 Adjacent Land Use

Most of the park boundary follows natural features; however, a small portion of the western boundary consists of straight lines established in 1913. This fragments the protection of the natural values from an ecosystem based management point of view. BC Parks will proactively encourage the interagency cooperation to address potential impacts from industrial and commercial activities (such as logging and commercial recreation) adjacent to Mount Robson Park. Best management practices for activities adjacent to parks and protected areas have been developed by the Ministry of Environment for activities adjacent to practices is important to reduce and mitigate the impact from activities adjacent to the park.

Private in-holdings are located within the core area of the park around the Visitor Centre. BC Parks will assess the feasibility of acquiring these in-holdings for the inclusion to the park on a willing seller basis.

Management Objectives	Management Strategies
Minimize impacts to park values from adjacent land uses.	 Continue to monitor adjacent land uses for impacts to park values. Promote and implement the Best Management Practices for Activities Adjacent to Parks and Protected Areas⁹. Investigate opportunities to add land to the park to define the boundary by geographic features and ecosystem limits.
Acquire private land in the core area of the park as opportunities arise.	 Ensure private land in the core area of park is identified as a regional acquisition priority in the Ministry of Environment's Land Acquisition Program. Acquire private land in the core area of the park, subject to the availability of funding.

3.10 Existing Alienations and Encumbrances

Mount Robson Park has been an important transportation corridor since the 1800s, resulting in varying land rights throughout the park. Eight parcels of land are owned by Kinder Morgan Canada and CN Rail. Fifteen separate right of way agreements are in place for Highway #16, CN Rail, Kinder Morgan Canada, Telus and BC Hydro. CN Rail, Kinder Morgan Canada and BC Parks each hold water rights. Several non-conforming activities, such as highway gravel extraction, communication sites and cabin occupancy, are

authorized under park use permits. Many of these tenures predate the 1973 park expansion and were validated under section 30 of the *Park Act*. Also of note are the trapline and guide outfitter permits and the heliskiing licence in the Swift Current Creek addition. The Robson Valley Land and Resource Management Plan (LRMP) identified that the existing licences and permits will be honoured.



Kinder Morgan Canada Pipeline

In 2008, Kinder Morgan Canada twinned approximately 158 km of the existing pipeline through the Yellowhead corridor in order to expand the transportation capacity of the system. The original pipeline was authorized under a 1952 Order in Council that allowed construction and operation of one or more pipelines. Approximately 60 km of the new

⁹ Contact the Ministry of Environment – Prince George Office for more information.

pipeline falls within Mount Robson Park. The new pipeline will deviate from parts of the existing pipeline right of way to reduce the number of Fraser River crossings and to use existing linear disturbances such as Highway #16 and abandoned rail grades.

The land required for the new pipeline construction was removed from Mount Robson Park and re-established as Mount Robson Protected Area under the *Environment and Land Use Act*. Upon completion of the pipeline construction and restoration, it is recommended that the land removed from the park be added back to Mount Robson Park and the pipeline would be authorized under a park use permit. Also, in compensation for the temporary removal of park land from Class A park status, an addition to Mount Robson was identified and added to the park in 2010 (see Figure 3).

Management Objectives	Management Strategies
Manage inholdings and tenures to meet the conservation and recreation roles of the park.	 Continue to authorize the trapline within the Swift Current Creek addition (respecting the direction as set out in the Robson Valley LRMP). Maintain pipeline, BC Hydro and Telus rights-of- way as parkland for protecting natural features and recreation opportunities.
Reduce, where possible, the number of non-conforming uses.	 Ensure that historical significant structures (e.g., houses at Lucerne) that are privately owned are under park use permit. Investigate opportunities to consolidate non-conforming facilities, present and future, such as repeater stations and access roads.
Minimize environmental and visual impacts associated with the transportation corridor tenures	• Continue to require permit holders to remove non- natural objects, such as buildings, and to rehabilitate sites to a natural state when the permit has been terminated or cancelled.



Figure 3: Boundary Extension

3.11 Fraser Headwaters Designated Wildland Area

The Fraser River was designated as a heritage river in 1998, as part of Canadian Heritage Rivers System (CHRS), Canada's national river conservation program, with national and provincial significance. In recognition of the unique and special values associated with the Fraser River, the pristine nature of the headwaters, and the presence of caribou habitat used by the Tonquin herd, BC Parks will propose that the headwaters of the Fraser River be established as a designated wildland area under the *Park Act*. This is a separate designation within a park established by an Order in Council. Designated wildland areas are maintained as roadless areas and are retained in a natural condition for the conservation of its ecological environment and scenic values. The designation will further emphasize the importance of managing this area of the park to ensure natural processes continue to evolve with minimal human intervention. Use of the area will be limited to those activities which do not impact the natural environment and are compatible with the wilderness experience sought by visitors to the area. All forms of commercial activity and motorized use for recreation will be prohibited. Figure 4 provides a map of the proposed designated wildland area.

3.12 Zoning

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

At one end of the spectrum, the Intensive Recreation Zone indicates a portion of a park that is appropriate for high levels of recreation use and facility development. At the opposite end, the Wilderness Conservation Zone indicates an area of a park that receives the highest level of resource protection and evidence of human use is generally low. In addition, there are three additional zones providing a range of conservation and recreation priorities – Nature Recreation Zone, Special Feature Zone and Wilderness Recreation Zone.

Zoning within Mount Robson Park was applied based on a landscape level approach as much as possible; however, the presence of a major transportation corridor running through the middle of the park hindered the establishment of strictly landscape level management units. Wilderness zones are applied in the backcountry areas of the park and the Intensive Recreation zones are kept to site specific locations. Nature Recreation zones provide a buffer between intensive recreation and human use and wilderness areas. Each management unit has been given a unique name. Although zones are very similar (i.e., two Nature Recreation zones), the unique name and management unit differentiates zone location and management direction where necessary. The objective for each zone and a discussion on the size, zone boundary and management intent is described below. Zoning maps are provided in Figures 5, 6, 7 and 8. The BC Parks Zoning Framework is in Appendix B. The appropriate uses table is in Appendix C.

3.12.1 Transportation Corridor Intensive Recreation Zones (IR)

Zone Objective: To provide a variety of readily accessible, facility-oriented outdoor recreation opportunities along Highway #16.

These zones combined are 213 hectares in size and make up 0.1% of the park. There are eight zones along the transportation corridor:

- 1. Robson River;
- 2. Robson Meadows;
- 3. Core Visitor/Berg Lake Trailhead;
- 4. Overlander Falls;
- 5. Moose Lake Boat Launch;
- 6. Lucerne Campground;
- 7. Yellowhead Lake Boat Launch; and,
- 8. Portal Lake.

These areas are defined by the footprint of existing recreation infrastructure and surrounding area. Infrastructure will be designed to blend with the natural features. Means of access is by all-weather public roads. Management actions will be geared toward ensuring public safety, maintaining natural values, and delivering high quality recreation services.

3.12.2 Transportation Corridor Nature Recreation Zone (NR1)

Zone Objective: To provide scenic values and nature recreation opportunities in a largely undisturbed natural environment and to provide a buffer between the intensive human use areas in the transportation corridor and the wilderness areas of the park.

This zone is 13,170 hectares in size and makes up 5.8% of the park. It is defined by a 1 kilometre buffer on either side of Highway #16 or the railway in the frontcountry of the park. The major railway lines through the park were also used in defining frontcountry in this situation. This zone recognizes the impacts associated with the major transportation routes and provides a buffer between intensive recreation and human use and wilderness zones. Management actions will be geared toward protecting infrastructure and dealing with public safety, forest health and wildlife management issues.



Figure 4: Proposed Fraser River Headwaters Designated Wildland Area

3.12.3 Yellowhead Pass Special Feature Zone (SF)

Zone Objective: To protect the special cultural features associated with the Yellowhead Pass National Historic Site.

This zone is 480 hectares in size and makes up 0.2% of the park. It is established to raise the awareness and protection of the National Historic Site. Sightseeing and the interpretation of historic features are appropriate uses within the zone. Management actions will be geared toward ensuring the historic features are maintained.

3.12.4 Berg Lake Nature Recreation Zone (NR2)

Zone Objective: To provide a safe world-class backcountry experience in a scenic Rocky Mountain setting.

This zone is 19,103 hectares in size and makes up 8.4% of the park. The boundary is defined by the Robson River/Berg Lake watershed beyond the transportation corridor. Use levels are high and management actions will be geared toward maintaining a safe and high quality wilderness experience, protecting facilities from wildfire, and ensuring the natural features are maintained. Also, see section 3.6.3 for direction toward fixed roof accommodation in this zone.

3.12.5 Swift Current/Upper Holmes Wilderness Recreation Zone (WR1)

Zone Objective: To protect a remote, undisturbed natural landscape while providing primitive backcountry recreation opportunities (hiking and hunting).

This zone is 18,573 hectares in size and makes up 8.2% of the park. The boundary is defined by the Swift Current Creek drainage beyond the transportation corridor and the Holmes River drainage. No facility development is planned for this zone. Management actions will be geared toward conducting wildlife and vegetation inventories as resources permit and monitoring hunting and guide outfitting use in the Swift Current Creek addition. The heli-ski tenure is located in this zone. A Wilderness Recreation Zone is designated over the tenured area as it receives little to no use.

3.12.6 Moose River Wilderness Recreation Zone (WR2)

Zone Objective: To protect a remote, undisturbed natural landscape while providing solitary recreation experiences in a primitive backcountry setting (hiking and horse use).

This zone is 45,692 hectares in size and makes up 20% of the park. The boundary is defined by the Moose River drainage beyond the transportation corridor and the small drainages north of the transportation corridor and between the Berg Lake drainage and the Moose River drainage. Management actions will be geared toward maintaining a safe backcountry route for hiking and horse use and allowing naturally occurring processes to prevail.¹⁰ Air

¹⁰ Except for management actions related to the recovery of a species or communities at risk or public safety.

access will be limited to when required for management services. Horse use is not permitted in the upper Resplendent Creek area west of the designated Moose River route.

3.12.7 North Fraser Wilderness Recreation Zone (WR3)

Zone Objective: To protect a remote, undisturbed natural landscape where unassisted backcountry opportunities exist (hiking).

This zone is 5,553 hectares in size and makes up 2.4% of the park. The boundary is defined by all drainages into the Fraser River or Moose Lake between the Moose River drainage and the Berg Lake drainage north of the transportation corridor buffer. No recreation development is planned for this zone. A Wilderness Recreation Zone is designated to recognize the higher level of forest health management activity.

3.12.8 Yellowhead Mountain Wilderness Recreation Zone (WR4)

Zone Objective: To protect a remote, undisturbed natural landscape while providing primitive backcountry recreation opportunities (hiking).

This zone is 3,143 hectares in size and makes up 1.4% of the park. The boundary is defined by all drainages into Yellowhead Lake and Fraser River between the transportation corridor and Yellowhead Mountain and between Grant Brook drainage and Jasper National Park. Management actions will be geared toward maintaining the Yellowhead Mountain Trail as a primitive backcountry trail, minimizing the impact backcountry recreation has on the environment, and implementing the forest health strategy objectives.

3.12.9 South Fraser Wilderness Recreation Zone (WR5)

Zone Objective: To protect a remote, undisturbed natural landscape while providing primitive backcountry recreation opportunities (hiking and backcountry skiing).

This zone is 23,938 hectares in size and makes up 10.5% of the park. The boundary is defined by all drainages south of the transportation corridor and west of the Fraser River Headwaters Wilderness Conservation Zone. Helicopter access will be permitted to the Mount Terry Fox Monument. The majority of use in this zone is from non-mechanized winter commercial recreation originating outside the park. Management actions will be minimal and will focus on minimizing the impact of backcountry recreation on the environment.

3.12.10 Mount Fitzwilliam Wilderness Recreation Zone (WR6)

Zone Objective: To protect a remote, undisturbed natural landscape while providing backcountry recreation opportunities dependent on a pristine environment (backcountry hiking and mountain biking to the Replacement Creek campsite).

This zone is 8,072 hectares in size and makes up 3.6% of the park. The boundary is defined by the Fitzwilliam Creek watershed to the Transportation Corridor Nature Recreation Zone

buffer. Management actions will be minimal and will focus on minimizing the impact of backcountry recreation on the environment.

3.12.11 Fraser River Headwaters Wilderness Conservation Zone (WC1)

Zone Objective: To protect a remote, undisturbed natural landscape where no facilities will be developed and naturally occurring processes will prevail.

The zone is 76,417 hectares in size and makes up 33.6% of the park. The boundary is defined by the Fraser River drainage beyond the transportation corridor and the Ghita Creek and Sleeper Creek drainages east of Moose Lake. Incorporated within this zone is the proposed designated wildland area. Management actions will be minimal and not evident and naturally occurring processes will prevail.¹¹

3.12.12 Grant Brook Wilderness Conservation Zone (WC2)

Zone Objective: To protect a remote, undisturbed natural landscape where no facilities will be developed and naturally occurring process will prevail.

This zone is 13,312 hectares in size and makes up 6.8% of the park. The boundary is defined by the Grant Brook drainage beyond the transportation corridor. Management actions will be minimal and non evident and naturally occurring processes will prevail.¹²

¹¹ Except for management actions related to the recovery of a species or communities at risk and public safety. ¹² Except for management actions related to the recovery of a species or communities at risk, public safety or implementing fall and burn activities associated with the forest health strategy adjacent to the Yellowhead Wilderness Recreation Zone.



Figure 5: Zoning Plan



Figure 6: Core Visitor Area Zoning Plan



Figure 7: Yellowhead Pass West Zoning Plan



Figure 8: Yellowhead Pass National Historic Site East Zoning Plan

4 Performance Measures

The practical use of the term sustainability means that ecological, social, and economic factors are taken into consideration when making management decisions. This management plan identifies key performance indicators based on the concept of sustainability and adaptive management and will guide BC Parks in the implementation of this management plan. Ecological, social and economic indicators connected to key management objectives will be monitored and evaluated in an adaptive management process (Figure 9). The use of these indicators also provides a mechanism to report out on performance. As a living document, managers may decide to improve upon the targets or add indicators as more baseline information becomes available and provincial priorities change. The indicators are provided in Appendix D.



Figure 9: Adaptive Management Process

Appendix A: Biogeoclimatic Zone Representation for Mount Robson Park

BGC Zone	Total BGC Zone area within the province (ha)	Total province- wide protected area in this BGC Zone (ha)	% of the total BGC Zone area within the province that is protected	% of province- wide protected area in this BGC Zone	Number of protected areas in this BGC Zone	Area of this BGC Zone in this Provincial PA (ha)	% of this BGC Zone in this Provincial PA	% of the province- wide protected area in this BGC Zone that is in this Provincial PA
ESSF	16,961,492	2,724,806	16.0	22.9	161	131,519	0.8	4.8
ICH	5,179,131	483,235	9.3	4.1	138	5,815	0.1	1.2
IMA	1,606,371	507,960	31.6	4.3	59	66,692	4.1	13.1
SBS	9,603,583	578,011	6.0	4.9	110	18,744	0.2	3.2
ESSFmm 1	296,348	41,253	13.9	0.3	11	36,522	12.3	88.5
ESSFmm 2	21,582	21,582	100.0	0.2	1	21,582	100	100
ESSFmmp	344,815	79,603	23.1	0.7	11	73,415	21.3	92.2
ICH mm	144,170	7,981	5.5	0.1	6	5,815	4.0	72.9
IMA un	1,160,441	345,631	29.8	2.9	51	66,696	5.7	19.3
SBS dh 1	65,151	1,644	2.5	0.0	5	752	1.1	45.7
SBS dh 2	18,609	17,992	96.7	0.1	1	17,992	96.7	100

Appendix B: BC Parks Zoning Framework

	Protected Areas Mana	agement Planning Zone Des	criptions
	Intensive Recreation	Nature Recreation	Special Feature
Objective	To provide for a variety of readily- accessible, facility-oriented outdoor recreation opportunities.	To protect scenic values and to provide for backcountry recreation opportunities in a largely undisturbed natural environment.	To protect and present significant natural or cultural resources, features or processes because of their special character, fragility and heritage values.
Use Level	Relatively high density and long duration types of use.	Relatively low use but higher levels associated with nodes of activity or access.	Generally low.
Means of Access	All-weather public roads or other types of access where use levels are high (see "Impacts" below).	Motorized (powerboats, snowmobiles, all- terrain vehicles) and non-motorized (foot, horse, canoe, bicycles). Aircraft and motorboat access to drop-off and pick-up points will be permitted.	Various; may require special access permit.
Location	Contiguous with all-weather roads and covering immediate areas, modified landscapes or other high-use areas.	Removed from all-weather roads but easily accessible on a day-use basis. Accessible by mechanized means such as boat or plane.	Determined by location of special resources; may be surrounded by or next to any of the other zones.
Size of Zone	Small, usually less than 2,000 hectares.	Can range from small to large.	Small, usually less than 2000 hectares.
Boundary Definition	Includes areas of high facility development in concentrated areas.	Boundaries should consider limits of activity and facility areas relative to ecosystem characteristics and features.	Area defined by biophysical characteristics or the nature and extent of cultural resources (adequate to afford protection).
Recreation Opportunities	Vehicle camping, picnicking, beach activities, power-boating, canoeing, kayaking, strolling, bicycling, historic and nature appreciation, fishing, snow play, downhill and cross-country skiing, snowshoeing, specialized activities.	Walk-in or boat-in camping, power-boating, hunting, canoeing, kayaking, backpacking, bicycling, historic and nature appreciation, fishing, cross-country skiing, snowmobiling, river rafting, horseback riding, heliskiing, helihiking and specialized activities.	Sightseeing, historic and nature appreciation. May be subject to temporary closures or permanently restricted access.
Facilities	May be intensely developed for user convenience. Campgrounds, landscaped picnic or play areas, trail accommodation or interpretative buildings, boat launches, administrative buildings, service compounds, gravel pits, disposal sites, woodlots; parking lots, etc.	Moderately developed for user convenience. Permitted: trails, walk-in or boat-in campsites, shelters, accommodation buildings, facilities for motorized access (docks, landing strips, fuel storage, etc.)	Interpretative facilities only; resources are to be protected.
Impacts on Natural Environment	Includes natural resource features and phenomena in a primarily natural state, but where human presence may be readily visible as both recreation facilities and people using the zone. Includes areas of high facility development with significant impact on concentrated areas.	Area where human presence on the land is not normally visible. Facility development limited to relatively small areas. Facilities are visually compatible with natural setting.	None: resources to be maintained unimpaired.
Management Guidelines	Oriented to maintaining a high-quality recreation experience. Intensive management of resource and control of visitor activities. Operational facilities designed for efficient operation while unobtrusive to park visitors.	Oriented to maintaining a natural environment and high-quality recreation experience. Visitor access may be restricted to preserve the recreation experience or to limit impacts. Separation of less compatible recreational activities and transportation modes. Designation of transportation may be necessary to avoid potential conflicts (e.g., horse trails, cycle paths, hiking trails).	High level of management protection with ongoing monitoring. Oriented to maintaining resources and, where appropriate, a high-quality recreational and interpretative experience. Active or passive management, depending on size, location and nature of the resource. Visitor access may be restricted to preserve the recreation experience and to limit impacts.

Examples of Zoning	Campground in Rathtrevor Beach Park; Gibson Pass ski area in E.C. Manning Park.	Core area in Cathedral Park; Naikoon Park.	; North beach in	Botanical Beach tidepools in Juan de Fuca Park; Sunshine Meadows in Mt. Assiniboine Park.	
	Protected Areas Management Planning Zone Descriptions				
	Wilderness Recr	eation	Wild	derness Conservation	
Objective	To protect a remote, undisturbed natural landscape and to provide backcountry recreation opportunities, depending on a pristine environment where air access may be permitted to designated sites.		provide unassiste	ote, undisturbed natural landscape and to ed backcountry recreation opportunities, pristine environment where no motorized allowed.	
Use Level	Very low use to provide solitary experiences atmosphere. Use may be controlled to prote			provide solitary experiences and a sphere. Use may be controlled to protect	
Means of Access	Non-mechanized & non-motorized. May per to designated sites; foot, canoe and horse a		Non-mechanized access may be p	& non-motorized; foot, canoe and horse ermitted.	
Location	Remote, not easily visited on a day-use bas	is.	Remote, not easily visited on a day-use basis.		
Size of Zone	Large, greater than 5,000 hectares.		Large, greater than 5,000 hectares.		
Boundary Definition	Defined by ecosystem limits and geographic features. Boundaries will encompass areas of visitor interest for specific activities supported by air access.		Defined by ecosy	stem limits and geographic features.	
Recreation Opportunities	Backpacking, canoeing, kayaking, river rafting, nature and historic appreciation, hunting, fishing, cross-country skiing, snowshoeing, horseback riding, specialized activities (e.g., caving, climbing).		historic appreciat	noeing, kayaking, river rafting, nature and ion, fishing, cross-country skiing, rseback riding, specialized activities (e.g.,	
Facilities	Minimal facility development for user conver protection of the environment e.g., trails, pri basic facilities at access points, e.g., dock, p	mitive campsites. Some	None.		
Impacts on Natural Environment	Natural area generally free of evidence of hi human presence is confined to specific facil visually compatible with natural setting.		Natural area gen	erally free of evidence of human beings.	
Management Guidelines	Oriented to protecting a pristine environment. Management actions are minimal and not evident. Managed to ensure low visitor use levels. Visitor access may be restricted to protect the natural environment and visitor experience.		actions are minin low visitor use level	cting a pristine environment. Management nal and not evident. Managed to ensure vels. Visitor access may be restricted to al environment and visitor experience.	
Examples of Zoning	Quanchus Mountains Wilderness in Tweeds in Spatsizi Park.	smuir Park; Wilderness Zone		ver watershed within Monkman Park; ature Conservancy Area.	

Appendix C: Appropriate Uses Table

Activity/Facility	Appropriate in Intensive Recreation Zone	Appropriate in Nature Recreation Zone	Appropriate in Special Feature Zone	Appropriate in Wilderness Recreation Zone	Appropriate in Wilderness Conservation Zone
Activity					
Aircraft Access	М	М	N	М	N ¹
Angling Guiding	Y	Y	N/A	Y	Y
Beach Activities (e.g.,					
swimming)	Y	Y	N/A	N/A	N/A
Boating (power)	Y	Y	N/A	N	N
Boating (non-power)	Y	Y	N/A	Y	Y
Camping – backcountry	N/A	Y	N/A	Y	Y
Camping – auto or boat accessible	Y	Y	Ν	Ν	Ν
Commercial Recreation (facility-based)	Y	Y	N	Ν	Ν
Commercial Recreation (no facilities)	Y	Y	М	Y	М
Exotic Pack Animal Use	N	N	N	N	N
Filming (commercial)	Μ	М	М	М	М
Fire Management (prescribed fire management)	Y	М	N	М	Μ
Fire Management (prevention)	Y	Y	М	М	М
Fire Management (suppression)	Y	Y	Y	М	N ¹
Fishing	Y	Y	N/A	Y	Y
Fish Stocking and Enhancement	N^1	N ¹	Ν	Ν	Ν
Forest Insect/Disease Control	М	М	М	N ¹	N ¹
Grazing (domestic livestock)	Ν	N	N	N	N
Guide Outfitting	N	N	N	N ²	N
Heli-hiking	N/A	N ¹	N	N ¹	N
Horse/Non-Exotic Pack Animal Use	Y	Y	Ν	Y	Ν
Hunting	N	N	N	N ¹	N
Mountain biking	Y	Y	М	N ¹	N
Motorized Off-road Access (not snowmobiles – i.e., 4x4, motorcycles)	Ν	N	N	Ν	Ν
Off-road Access (non- mechanical – dog sleds, horse sleds)	М	М	N	Ν	Ν
Rockclimbing	Y	Y	Y	Y	Y
Scientific Research (manipulative activities)	М	М	N	М	Ν
Scientific Research (specimen collection)	М	М	М	М	М
Skiing (downhill & cross- country – groomed runs or trails)	Y	N	N	N	Ν
Skiing (helicopter or cat- assisted).	Ν	N	N	N ¹	Ν
Skiing (self propelled, not groomed)	Y	Y	Y	Y	Y
Snowmobiling	Ν	Ν	Ν	N	Ν
Trapping	Ν	N	Ν	N ²	Ν

Facility					
Administrative Buildings and Compounds	Y	Y	N	N	N
Backcountry Huts and Shelters	N/A	Y	N/A	Y	Ν
Boat Launches	Y	М	N	N	N
Campgrounds and Picnic Areas (vehicle access and serviced)	Υ	Ν	Ν	Ν	Ν
Camp sites (other)	N/A	Y	N	М	Ν
Communication Sites	N ¹	М	N	N ¹	Ν
Fixed Roof Accommodation	Y	Y	N	N	Ν
Interpretation and Information Buildings	Y	Y	М	Ν	Ν
Roads and Parking Lots	Y	N	N	Ν	Ν
Ski Hills and Snowplay Areas	Ν	N	N	Ν	Ν
Trails (hiking, cross-country skiing, mountain biking, horse)	Y	Y	М	Y	Ν
Utility Corridors (power/transmission lines and other rights-of-way)	N ¹	N ¹	N	N^1	Ν
Water Control Structures	Y	N ¹	N	N ¹	Ν

Legend for the Matrix of Appropriate Activities and Facilities

Y	Appropriate
Ν	Not appropriate
N ¹	Not appropriate except for expressed management purposes as identified in the Management Plan
N ²	Not appropriate, but if the specific activity or facility existed at the time of establishment of the protected area, it is normally appropriate for it to continue
М	May be appropriate if the way in which the activity is undertaken is compatible with Management Plan objectives and an impact assessment has been conducted.
N/A	Not applicable

Appendix D: Performance Measures

Ecological Indicators

Objective	Indicator	Target	Status as of November 2010
Aquatic Ecosystems			
Protect the Moose Marsh and other wetland areas as important wildlife habitat (s. 3.3.2)	Condition of wetlands	Maintain or increase ecological function of wetlands	Baseline evaluation of hydrologic regime, water quality, and habitat completed by Kinder Morgan. Ongoing monitoring occurring.
Maintain viable native fish populations while enhancing fish stocks in	Fish passage barriers	Reduction in human created fish passage barriers	Baseline evaluation required. Identified as priority for Legacy fund project.
Portal and Witney Lakes (s. 3.3.3)	Distribution of non- native fish species	Reduction in the distribution of non-native fish species	Brook trout in Yellowhead Lake tributary. Ongoing management occurring.
Terrestrial Ecosystems			
Continue to implement, evaluate and adjust the Forest Health Strategy for Mount Robson Park (s. 3.4.2)	Distribution of forest seral stages.	Maintain seral stage target ranges ¹³ for specific biogeoclimatic zones through natural processes as much as possible.	Seral stage distribution close to biodiversity targets. Continual monitoring and assessment required.
Maintain the long-term natural diversity of native plant species (s. 3.4.2)	Haller's Apple Moss population distribution and abundance.	Maintain or increase known population distribution and abundance.	Fitzwilliam Spur site = ~ 5 plants
	Distribution of non- native plant species.	Reduction in the distribution of non-native plant species.	Baseline inventory required.
Maintain and protect the natural diversity of wildlife species and	Supply of winter habitat for caribou.	Maintain supply of winter habitat for caribou	Winter habitat identified in 1998. Ongoing monitoring required.
populations (s. 3.4.3)	Ungulate mortality due to road or rail collisions. Diversity of bird species	Reduction in ungulate mortality Maintain species abundance	Study completed in 1995. Re- assessment required. Analysis of Bird Blitz data required.

¹³ As outlined in, Beaudry, L., & Thornton, D. (2007). Moose Lake Prescribed Fire Analysis for Burn Induced Vegetation Changes. P. Beaudry and Associates Ltd for British Columbia Ministry of Environment.

Social Indicators

Objective	Indicator	Target	Status as of November 2010			
Recreation	Recreation					
Provide a diversity of facilities that support a range of backcountry experiences while conserving the park's natural and cultural heritage resources (section 3.6.3)	Berg Lake Trail User Satisfaction	Maintain or increase satisfaction results	2006 satisfaction results – 71% completely satisfied and 28% mostly satisfied.			
Public Safety	Public Safety					
Continue to implement, evaluate and adjust the Forest Health Strategy for Mount Robson Park (section 3.4.2)	Forest Fire hazard.	Reduction in wildfire threat to park visitors and facilities	Swiftcurrent and Yellowhead west firebreaks established. Site specific fall and burn and Lucerne selective tree removal projects complete.			
Cultural Integrity						
Work closely with First Nations in managing and protecting the natural and cultural heritage resources (s. 3.5)	Condition of cultural heritage sites	Maintain or improve conditions	Yellowhead National Historic Site evaluation complete. Inventory of other sites and ongoing monitoring required.			
Ensure First Nations have the ability to share their culture with park visitors and use this activity as an economic opportunity (s. 3.5)	Cultural interpretation programming	First Nations delivering cultural interpretation programs	Preliminary discussions with Simpcw First Nation occurred.			

Economic Indicators

Objective	Indicator	Target	Status as of November 2010			
Tourism Economy						
Allow existing and new guided recreation services in the park where compatible with ecological, cultural heritage and recreational objectives (s. 3.6.11)	guided Recreation	Maintain or increase guided recreation opportunities	8 active guided recreation permits.			
Management Services						
Continually improve visitor service delivery (s. 3.7)	Park Facility Operator Visitor Service Delivery	Cost-neutral operation by 2013	Deficiency payment 2009.			