



# Hamber Park Management Plan

Part of the Canadian Rocky Mountain Parks World Heritage Site

October 2015



United Nations  
Educational, Scientific and  
Cultural Organization

Organisation  
des Nations Unies  
pour l'éducation,  
la science et la culture



Canadian Rocky  
Mountain Parks  
World Heritage Site  
since 1984

Parcs des montagnes  
Rocheuses canadiennes  
Site du patrimoine mondial  
depuis 1984



BC Parks

Cover Page Photo Credit: Greg Chin (BC Parks)

All photos contained within this management plan are credited to BC Parks (unless otherwise stated).

*This document replaces the 1986 Hamber Provincial Park Master Plan.*

Hamber Park  
Management Plan

**Approved by:**



October 7<sup>th</sup>, 2015

---

John Trehwitt  
Regional Director  
Kootenay Okanagan Region  
BC Parks

---

Date



October 7<sup>th</sup>, 2015

---

Brian Bawtinheimer  
Executive Director  
Conservation, Planning and Aboriginal Relations Branch  
BC Parks

---

Date

# Table of Contents

<b>1.0</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Management Plan Purpose.....	1
1.2	Planning Area .....	1
1.3	Legislative Framework .....	4
1.4	UNESCO Designation.....	5
1.5	Management Planning Process .....	6
1.6	Encumbrances and Permits .....	6
1.7	Relationship with First Nations.....	7
<b>2.0</b>	<b>Values and Roles of the Protected Area.....</b>	<b>8</b>
2.1	Significance in the Protected Areas System .....	8
2.2	Biodiversity and Natural Heritage Values .....	9
2.3	Recreation Values.....	12
2.4	Climate Change.....	14
<b>3.0</b>	<b>Management Direction .....</b>	<b>15</b>
3.1	Management Vision .....	15
3.2	Management Objectives and Strategies.....	15
3.3	Zoning Plan.....	23
<b>4.0</b>	<b>Plan Implementation .....</b>	<b>25</b>
4.1	Implementation Plan .....	25
4.2	High Priority Strategies .....	25
4.3	Plan Assessment .....	25
	<b>Appendix 1: Appropriate Use Table .....</b>	<b>27</b>

## Table of Figures

Figure 1: Regional Context Map for Hamber Park.....	2
Figure 2: Hamber Park Boundary Map .....	3
Figure 3: Recreation Facilities in Hamber Park.....	13
Figure 4: Zoning Map for Hamber Park .....	24

# 1.0 Introduction

This management plan replaces the 1986 Hamber Provincial Park Master Plan. Since the 1986 management plan, the park has become internationally recognized as a special place by being included in a World Heritage Site, and the conservation status of many species has changed while our understanding of conservation and management has grown. The expected increases in public use via air access and backpacking outlined in the 1986 management plan did not occur. This new management plan updates the management direction for Hamber Park considering current information and future trends.

## 1.1 Management Plan Purpose

The purpose of this management plan is to guide the management of Hamber Park. This management plan:

- articulates the key features and values of Hamber Park;
- identifies appropriate types and levels of management activities;
- determines appropriate levels of use and development;
- establishes a long-term vision and management objectives for the park; and
- responds to current and predicted threats and opportunities by defining a set of management strategies to achieve the management vision and objectives.

## 1.2 Planning Area

Hamber Park is located at the continental divide adjacent to Jasper National Park, about 130 kilometres northwest of the community of Golden. It is part of the Canadian Rocky Mountain Parks World Heritage Site (Figure 1) which includes two other provincial parks (Mount Robson and Mount Assiniboine) and four national parks (Jasper, Banff, Kootenay and Yoho).

Hamber Park is a wilderness area that protects a landscape and natural features of provincial, national and international significance. Owing to the ruggedness, the park (Figure 2) is isolated and difficult to access, with air access by floatplane being the main way of getting to the park. Access by foot is possible by a 24-kilometre trail through Jasper National Park; however, this route requires crossing the Athabasca and Chaba rivers which can be challenging. The closest highway is Highway #93 in Alberta and the closest other provincial park is Cummins Lakes Park, about 15 kilometres to the south.



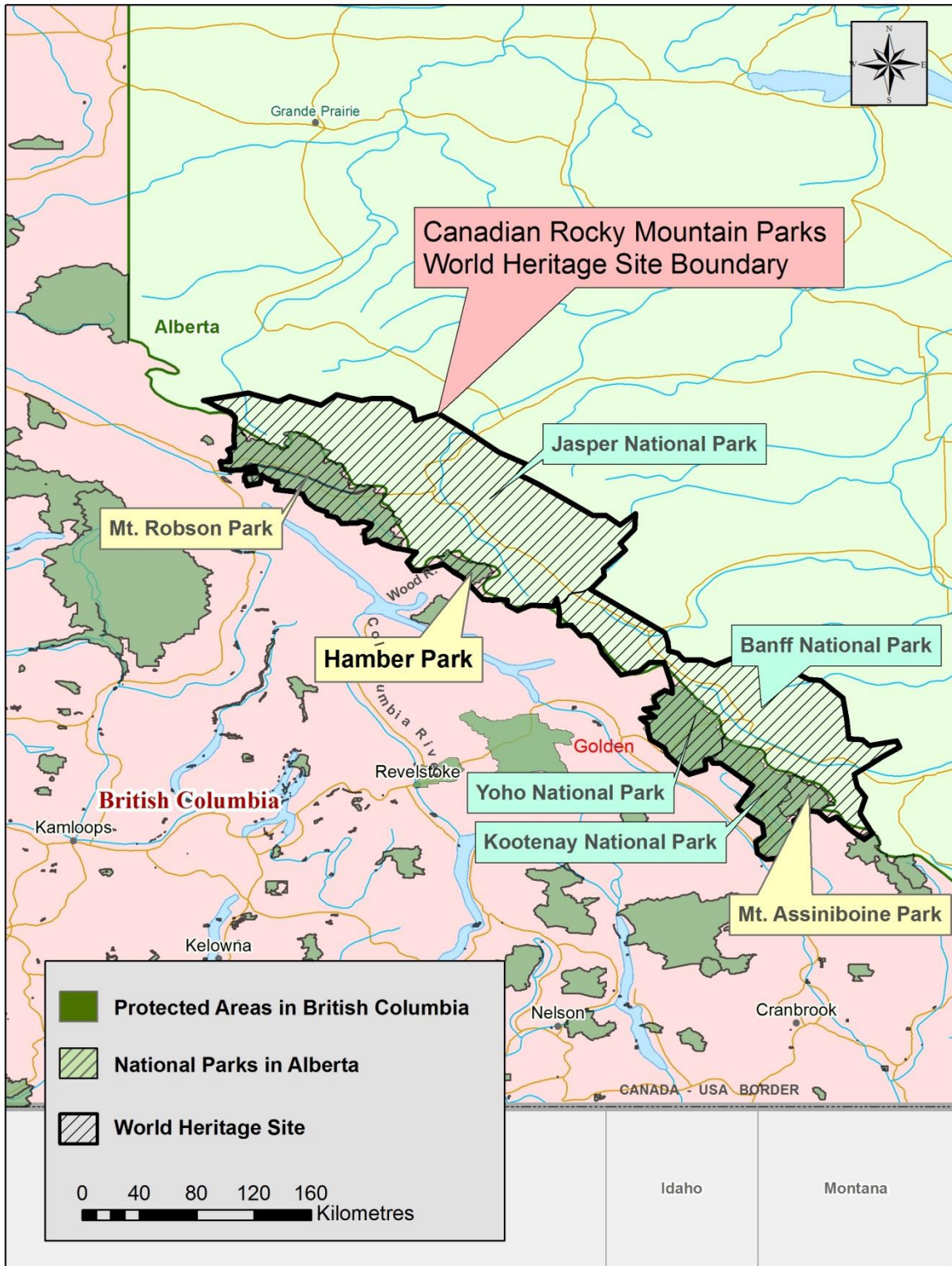
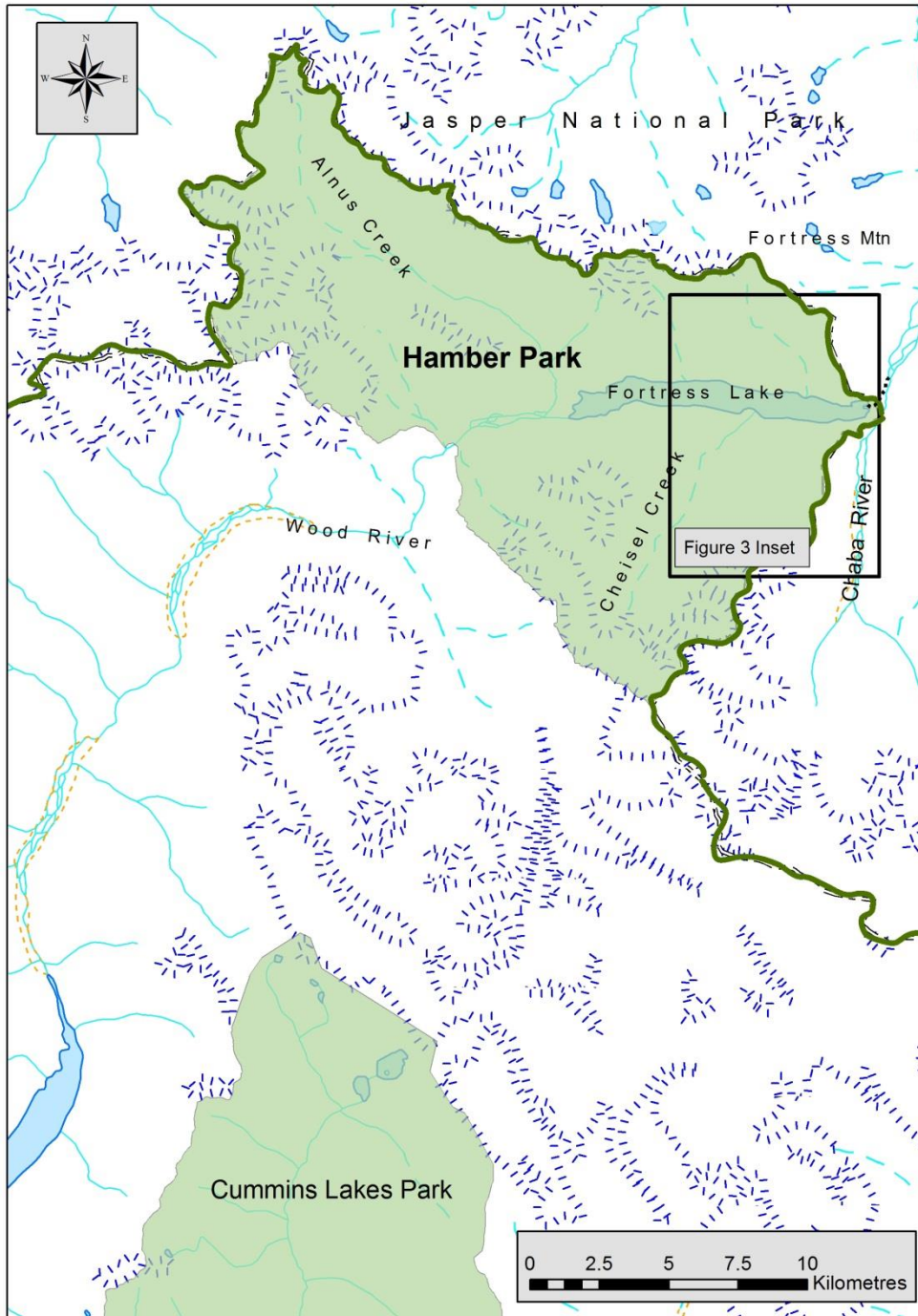


Figure 1: Regional Context Map for Hamber Park



**Figure 2: Hamber Park Boundary Map**

Hamber Park is a heavily glaciated mountain landscape with alpine meadows and subalpine forests of old-growth spruce. Wildlife species in the park are typical for the Rocky Mountains such as Moose, Grizzly Bear and Mountain Goat. The main attraction of the park is Fortress Lake. Lying at the 1,300 metre elevation, the scenic 11-kilometre long lake is a popular destination for world class Eastern Brook Trout trophy fishing. The lake is framed by majestic mountains reaching over 3,000 metres, such as Chisel Peak and Fortress Mountain.



**Photo: Fortress Lake and Chisel Peak looking west**

### **1.3 Legislative Framework**

Hamber Park was once the largest provincial park in British Columbia at over one million hectares in size. Originally established in 1941, it was intended to complement and provide continuity to the vast land tract of preserved wilderness extending and straddling both sides of the continental divide from Mount Robson Park to Yoho and Glacier national parks.

The boundaries of Hamber Park have undergone significant changes throughout its history. In 1961, the area of the park was reduced to 22,500 hectares and the



classification changed from a Class A park to a Class B<sup>1</sup> park in recognition of the importance of the timber values to the British Columbia economy. A further change in the boundaries of the park in 1962 increased the area of the park to its present size (25,137 hectares) and changed the park from Class B back to Class A. Class A parks are Crown lands dedicated to the preservation of their natural environments for the inspiration, use and enjoyment of the public. Development in Class A parks is limited to that which is necessary to maintain the park's recreational values.

Hamber Park is presently named and described in Schedule C of the *Protected Areas of British Columbia Act*. Its management and development are directed by the *Park Act*.

## 1.4 UNESCO Designation

Originally comprised of the four contiguous national parks, the Canadian Rocky Mountain Parks World Heritage Site was established in 1984 for its outstanding scenic splendour. Under an international convention, 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 universal value to humanity. The addition of Hamber Park to the Canadian Rocky Mountain Parks World Heritage Site occurred in 1990 along with Mount Robson<sup>2</sup> and Mount Assiniboine provincial parks.

The UNESCO designation is 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.

The Canadian Rocky Mountain Parks World Heritage Site park managers cooperate with the adjacent British Columbia and Alberta government agencies to ensure that biodiversity is maintained in the Central Rockies ecosystem and that the area is managed sustainably in a regional landscape context.

<sup>1</sup> A Class B park is Crown land established under the *Park Act* whose management and development is constrained by the Act. They differ from Class A parks only with respect to the "test" that must be met in order to issue a park use permit. Sections 8 and 9 of the *Park Act* are the most pertinent in this regard, and direct that a park use permit must not be issued respecting an interest in land or natural resources "unless, in the opinion of the minister, to do so is not detrimental to the recreational values of the park concerned." Accordingly, Class B parks may permit a broader range of activities and uses than a Class A park provided that such uses are not detrimental to the recreational values of the park.

<sup>2</sup> The additions to Mount Robson Provincial Park since 1990 are not included in the Canadian Rocky Mountain Parks World Heritage Site.

## 1.5 Management Planning Process

The management planning process for Hamber Park began in June 2013 with the approval of a project plan. The initial planning phase involved gathering and reviewing previous background information and beginning to make contact with stakeholders and First Nations to raise awareness of the project initiation. The 1986 management plan was used for background and context. This information was supplemented with more current information gathered from databases, websites, reports and those knowledgeable about the park values and issues.

The second phase of the planning process was dedicated to developing a draft management plan based on the information gathered in Phase 1. When the draft management plan was complete, it was made available to the public on the BC Parks website for review. Stakeholders, potential interest holders and various First Nations were notified of the availability of the draft management plan for review and comment through email notification. Some First Nations with prior government-to-government engagement agreements were consulted in accordance to the process of those agreements.

The last phase of the planning process focused on revising the draft management plan in response to comments received, completing consultation and internal reviews and acquiring the necessary approvals.

## 1.6 Encumbrances and Permits

Originally issued in 1985, a park use permit (PUP 102926) authorizes the operation of a commercial recreation fishing camp which includes overnight accommodation, guiding (angling/recreational), commercial floatplane access and motorized boat use on Fortress Lake. There is an additional permit (PUP 102055) for commercial aircraft access to the park by helicopter but this is rarely used.

Commercial recreation park use permits (102176 and 106721) issued in 2005 and 2013 respectively provide guided climbing, backcountry recreation and mountaineering opportunities.

## 1.7 Relationship with First Nations

Hamber Park lies in the asserted traditional territories of the Ktunaxa Nation, the Okanagan Nation and the Secwépemc Nation. Ongoing collaboration will occur with respect to the management of the park's natural, cultural and recreational values through First Nation involvement where applicable in annual planning for the park and project specific planning. This will ensure that the management of the park considers their traditional uses and values. The management plan will not limit subsequent treaty negotiations.

The traditional territory of the Ktunaxa Nation covers the Kootenay region and extends into the United States. In British Columbia, the Ktunaxa Nation Council includes four Indian bands: -aqam (St Mary's Band), -akink'umasnuqi? it (Tobacco Plains Band), akisq'nuk (Columbia Lake Band) and Yaqan nu? kiy (Lower Kootenay Band). The Ktunaxa Kinbasket Treaty Council is currently negotiating a treaty with the Government of Canada and the Province of British Columbia and signed a government-to-government memorandum of understanding with the Province in 2005 for the management of provincial parks in their asserted traditional territory. The memorandum of understanding makes provisions for the parties to cooperate in a variety of park management activities including planning, boundary reviews, economic development and capacity building.

The traditional territory of the Okanagan Nation extends from the Okanagan Valley into the West Kootenays and as far north as the Wood River in the Rocky Mountains. The Okanagan Nation Alliance is composed of seven Indian Bands and the Colville Confederated Tribes in the United States. Three member bands (Okanagan, Penticton, and Lower Similkameen) have asserted traditional territories that encompass Hamber Park.

The Secwépemc Nation traditional territory extends from the Fraser River to the Rocky Mountains and from the upper Fraser River in the north to the Canada-US border in the south. There are two tribal councils and 17 bands that compose the Secwépemc Nation with five bands (Simpco, Shuswap, Splots'in, Neskonlith and Adams Lake) having asserted traditional territories that encompass Hamber Park. A Reconciliation Framework Agreement with five Secwépemc Nation member bands (i.e., Tk'emlups, Skeetchestn, Adams Lake Indian Band, Splots'in, and Shuswap Indian Band) was signed with the Province in 2013 to establish an effective government-to-government working relationship for shared decision making. The Reconciliation Framework Agreement identifies many broad areas of engagement and has specific direction for consultation on park management.

## 2.0 Values and Roles of the Protected Area

### 2.1 Significance in the Protected Areas System

The primary role of Hamber Park is to contribute to the protection of the Central Park Ranges Ecosection, Fortress Lake and the natural scenic values of the Canadian Rocky Mountains.

Hamber Park lies within a large ecosystem unit called the Central Park Ranges Ecosection. The Central Park Ranges Ecosection is represented in the protected areas system by four protected areas (Yoho National Park and Hamber, Cummins Lakes and Cummins River provincial parks), with Hamber Park being the second largest after Yoho National Park. About 8.9% of the Central Park Ranges Ecosection is protected with Hamber contributing 4.3%.

While Hamber Park contributes similar ecological and physical characteristics as the other protected areas, it distinguishes itself with the protection of Fortress Lake, a major aquatic component. Fortress Lake is considered a rare lake ecosystem as its large size (830 hectares) is uncommon in mountainous environments. Most high elevation lakes in the Rockies are too small to develop self-sustaining ecosystems; however, Fortress is large enough that complete ecosystems have developed within and surrounding the lake. As part of the Canadian Rocky Mountain Parks World Heritage Site, Hamber Park plays an important role by contributing an outstanding glaciated mountain and lake environment along the western slopes of the Canadian Rocky Mountains.

While most of the eastern slopes of the continental divide are represented in the Canadian Rocky Mountain Parks World Heritage Site (through Banff and Jasper national parks), the western slopes are only partially represented (through Yoho and Kootenay national parks as well as Mount Robson and Hamber provincial parks) with a significant gap as shown in Figure 1. However, Hamber Park plays a role in helping reduce the gap between Mount Robson Park and Yoho National Park. Hamber Park, along with a portion of Yoho National Park, also enables representation of the Columbia River (the fourth largest watershed in North America) to be included in the Canadian Rocky Mountain Parks World Heritage Site.

Hamber Park is well placed to contribute to the UNESCO value of representing outstanding universal scenic value of the Canadian Rocky Mountain Parks World Heritage Site. The isolated park has a high degree of natural beauty with little evidence of unnatural disturbance even from viewpoints at high elevations. Forestry activity in the area is equally constrained by the isolation and difficult terrain with the closest logging roads over 15 kilometres from the park boundary.

The secondary role of the park is to maintain wilderness recreation opportunities for enjoyment of the scenic mountain and lake landscape. With the exception of low frequency floatplane access, the isolation and difficult access conditions limit visitation to low levels of use that support a largely wilderness recreation experience.

## 2.2 Biodiversity and Natural Heritage Values

### Terrestrial Ecosystem

The terrain is characterized by large, glacier formed U-shaped valleys, and high ice-capped mountain peaks with some peaks being sharply pointed. These sharply pointed peaks were higher and not subject to the scouring effects of glaciers. Chisel Peak is an example of a pointed peak and is the tallest point in the park at 3,049 metres. This is followed by Fortress Mountain at 3,020 metres. These two peaks are significantly lower in comparison to the highest mountain in the Canadian Rockies, Mount Robson at 3,954 metres.

Six of the ten different terrestrial biogeoclimatic<sup>3</sup> (BEC) subzones that are found in the Central Park Ranges Ecosystem, as shown in Table 2, are represented in Hamber Park indicating that ecosystem diversity is moderately high. Three biogeoclimatic subzones are greater than 3,000 hectares (the guideline set by BC Parks for representation) in the park.

**Table 2: Ecosystem Representation Table**

Biogeoclimatic (BEC) Zone	BEC subzone (BECS)	Area of BECS in the park (hectares)	Total area of BECS protected in B.C. (hectares)	% Total BECS protected in B.C. contributed by the park	Total % BECS protected in B.C.
Engelmann Spruce-Subalpine Fir	ESSFdk2	6,742	48,113	14	14
	ESSFdkp	3,297	17,925	18	20
	ESSFwc2	1,385	94,908	1	6
	ESSFwcp	1,211	80,268	2	7
	ESSFwcw	651	55,469	1	7
Interior Mountain-heather Alpine	IMA un	10,922	149,283	7	10.9

The amounts of ESSFdk2 (Spillimacheen Dry Cool) and ESSFdkp (Dry Cool Parkland) BEC subzones contributed by Hamber Park (shown above in Table 2) account for nearly the entire amount of these two BEC subzones that is protected in British Columbia. These two Engelmann Spruce-Subalpine Fir BEC subzones each represent unique dry cool

<sup>3</sup> A Biogeoclimatic zone is a geographic area in British Columbia classified as having similar patterns of energy flow, vegetation and soils as a result of a broadly homogenous macroclimate.



climates and are characterized by abundant Grouseberry and sparse herb cover in the undergrowth.<sup>4</sup>

### **Aquatic Ecosystems**

Freshwater ecosystems in Hamber Park include lake ecosystems like Fortress Lake and various small alpine lakes, four fast moving major creeks (Alnus Creek is the largest) and small areas of wetland (east and west ends of Fortress Lake and fronting the alluvial fan at Chisel Creek).

The most significant aquatic ecosystem values are associated with Fortress Lake. The lake is about 11 kilometres long and averages 800 metres in width. It has a mean depth of 26 metres with the deepest point being 67 metres. Fed by a number of glaciers, the lake is very cold and turbid with an August surface temperature as low as 15 degrees Celsius. Fortress Lake also creates a uniquely low difference in elevation between the two sides of the continental divide. At the eastern end of the lake during times of high water, Fortress Lake can spill over and drain eastwardly into the Chaba River on the eastern side of the continental divide.

Other than the wetlands, the littoral zone of Fortress Lake (the zone where aquatic plants are found) is non-existent given that most of the shoreline is steeply sloping into deeper water. The wetlands are swamp areas with trees and shrubs in standing water, however, there are some aquatic plants, including sedges and horsetails. The lake/wetland ecosystem is used by some waterfowl species in very small numbers including Common Goldeneye, Harlequin Duck, Common Merganser and loon.

### **Ecological Integrity**

Ecological integrity occurs when:

- an area or network of areas supports natural ecosystem composition, structure and function, and has a capacity for self-renewal;
- large areas are allowed to function with little to no intervention; and
- natural disturbances, species movements, predator-prey systems and other large processes can play out and evolve without interference.

All of the larger wilderness parks in the Central Park Ranges Ecosession are of sufficient size to contain and sustain many of the ecological components of the ecosession (such as the forests and glaciers) but they lack the size and are not strategically positioned to individually support some of the species components such as Grizzly Bears. However, as these wilderness parks are part of a contiguous protected area complex (Canadian Rocky Mountain Parks World Heritage Site), major ecosystem components for keystone species such as Grizzly Bears are being supported collectively. The overall ecological

<sup>4</sup> D.V. Meidinger and J. Pojar, *Ecosystems of British Columbia* (Victoria: BC Ministry of Forests, Special Report Series, 1991)

integrity of Hamber Park is enhanced by its close proximity to Jasper National Park which links Hamber Park to the ecosystem of the entire protected area complex.

### **Wildlife**

Hamber Park contains several large mammal species including Grizzly Bear, Black Bear, Grey Wolf, Moose, Mountain Goat and Wolverine.

Grizzly Bears and Black Bears are the more commonly observed wildlife in the park. Black Bears are often seen along Fortress Lake where there is an abundance of berries and other plant food sources while Grizzly Bears are commonly found at higher elevations and at times in the adjacent Chaba River corridor (Jasper National Park). The east end of Fortress Lake intersects with the Chaba River and serves as a travel route for Grizzly Bears crossing the continental divide. In terms of population that use the park, no inventories have been completed, but up to ten Grizzly Bears were reportedly observed at one time in the park in the mid-1980s. Some of the Grizzly Bears that use Jasper National Park also use Hamber Park as part of their large home range which is estimated to be at least seven times the size of Hamber Park.

Mountain Caribou that predominantly range in the southern part of Jasper National Park have been known to use a small portion of the Upper Alnus Creek drainage in Hamber Park. This Mountain Caribou herd population is in decline. The last known report of Mountain Caribou in Hamber Park was in 1985 when Grizzly Bear researchers noted Mountain Caribou tracks in the pass at Washout Creek.

### **Fish**

Fortress Lake is believed to have not contained fish prior to the 1920s when the lake was first stocked with non-native Eastern Brook Trout (from Pennsylvania) by Jasper National Park wardens. Fish surveys of the lake (last one done in 1989) have not found any species other than Eastern Brook Trout. A restocking of the lake occurred in the 1960s with stock from New Brunswick that was in the Jasper National Park fish hatchery at the time. Fishing for the Eastern Brook Trout of Fortress Lake has become a much sought after fly fishing experience. The lake is considered by some fishing magazines, fishing television programs and fishing equipment suppliers to be one of the world's best Eastern Brook Trout trophy fishing destinations. The most common size caught is reported to be 900 grams but the record for the lake is 5.3 kilograms. In comparison, the world record weight for Eastern Brook Trout is 6.57 kilograms (caught in Ontario in 1915).

Although Eastern Brook Trout were introduced in specific areas like Fortress Lake to support sport fishing in British Columbia, it is an exotic species that today is a conservation concern. Eastern Brook Trout have expanded from their original locations and are now widely distributed across southern British Columbia including the Kootenay and Columbia rivers. Eastern Brook Trout have been identified as a threat to native species such as the blue-listed Bull Trout. Competition for habitat and food as well as hybridization of Bull Trout are the main concerns.

## 2.3 Recreation Values

The early recreational use of the park was supported by a few old log cabins, primitive campsites and fishing camps along the shoreline of Fortress Lake. Today, the park has two rustic camping sites at the east end of Fortress Lake accessible by trail and water and a third campsite location farther down the lake that is only water accessible and usually accessed by floatplane. The two campsites at the east end of the lake each have fire rings, a food cache and a pit toilet (Figure 3). A 2.1-kilometre trail along the north shore of the lake connects the two campsite locations.

The most popular activity in Hamber Park continues to be fly fishing. Visitors are enticed by the potential opportunity to catch a trophy size Eastern Brook Trout. A commercial recreation fishing camp established on the Chisel Creek fan in 1987 continues to provide guided and unguided fishing opportunities as well as opportunities to explore Fortress Lake by motorboat or kayak. There is also a hiking route to the alpine that originates from behind the commercial recreation fishing camp.

The park also has two small caves in the upper Alnus Creek drainage that were discovered in 1985. Ranging in depth from 15 metres to 87 metres and in length from 100 metres to 272 metres, these modest caves, while not likely a reason to visit the park, do provide some recreational diversity for the alpine enthusiast.



**Photo: Commercial fishing camp yurt with Chisel Peak in the background**



**Figure 3: Recreation Facilities in Hamber Park**

While there was hunting and a commercial guide outfitter operating in the park many decades ago, there is little present indication of interest in hunting in this area. The challenging access has been identified as a key limiting factor for hunting.

The challenging access to the park is also considered a limiting factor for hiking. The trail along the north shore of Fortress Lake has been used so little that it has become overgrown through most of its length. Although there is tremendous potential for hiking in the alpine areas of Hamber Park, there are much more easily accessible opportunities in the adjacent Jasper National Park.

There is little reliable information on how much visitation there is in the park. There are some records for use at the fishing camp over the last 25 years; however, they are incomplete and inconsistent. The recent records have generally been more consistent and since 2010, fishing camp records indicate an average of 400 client days per year while estimating an additional average of 200 visitor days per year for those using the three campsites on the lake.

## 2.4 Climate Change

Large-scale changes in climate can impact wildlife, vegetation distributions, freshwater flows and natural disturbance processes in the park. This can result in changes to existing biodiversity and human activities. While there is no specific data for Hamber Park, climatic changes that could be expected over the next seven or eight decades may include:

- warmer winters, higher precipitation and general warming trends;
- increased frequency and/or severity of natural processes such as wildfires, forest pest infestations and droughts;
- changes in hydrology (e.g., reduction of glaciers and snowfields around which could affect timing of peak flows and low-water events for Fortress Lake);
- forest encroachment on alpine meadows in the upper Alnus, Washout and Fortress creeks as ecological zones shift higher up the mountain slopes; and
- extirpation of some plant and animal species (e.g., cold-adapted conifers) including those in ecological pockets such as microclimates, or at the limits of their range.

While climate change and its effects are uncertain, the current approach to addressing the future biodiversity impacts is to implement management strategies that support organisms to move, evolve and reassemble under the changing climatic conditions. The various protected area agencies managing the large Rocky Mountain protected area network are, for the most part, taking this approach with collaboration and coordination across jurisdictions.



## 3.0 Management Direction

### 3.1 Management Vision

Hamber Park is an integral component of the Canadian Rocky Mountain Parks World Heritage Site protected area complex that preserves terrestrial and aquatic ecosystem elements, habitats and un-impeded access for the migration of wide-ranging species. An ecosystem based management approach is being applied and coordinated with adjacent jurisdictions to ensure ecological sustainability. The park is renowned for providing exceptional wilderness recreational opportunities which attract a broad spectrum of international and domestic visitors. Fortress Lake continues to be the main focus for recreation and appreciation of the scenic mountain landscape.

### 3.2 Management Objectives and Strategies

#### 3.2.1 Ecosystem Based Management

Ecosystem management ensures management direction is considered across the full extent of the ecological landscape that the park is influenced by. Given the multi-jurisdictional nature of land management in the Canadian Rocky Mountain Parks World Heritage Site and the Central Park Ranges Ecoregion, managing impacts to broad ecosystem components needs a coordinated approach to be effective. Some management elements, such as maintaining wildlife connectivity and gathering and sharing ecosystem information, are key aspects to a coordinated approach requiring specific management direction.

Although Hamber Park is a relatively small part of the larger protected areas network and unlikely a major factor in determining network-wide approaches, it does share management challenges associated with vulnerable biodiversity values. The management of these values may benefit from research, monitoring and information from other jurisdictions. Monitoring of key environmental elements and the rate at which they are changing can help identify and assess management options for similar components in Hamber Park to maximize adaptation opportunities and minimize negative climate change impacts on park values and human use.

Management Objectives	Management Strategies
To conserve representative ecosystems, ecological values and natural ecological processes within the park.	<ul style="list-style-type: none"><li>• Manage the park within a larger ecosystem management approach that includes the major ecosystem components of vegetation, fish and wildlife and natural processes such as fire, insects, diseases, pollination and evolution</li><li>• Exchange inventory and research information on</li></ul>

Management Objectives	Management Strategies
	ecosystem values and processes with other agencies and jurisdictions.
To support wildlife connectivity within and outside the park.	<ul style="list-style-type: none"> <li>• Ensure habitat for bears, Mountain Goat, Mountain Caribou, and Moose in the park is managed to support connectivity over the landscape and work cooperatively with other government agencies and land managers to support connectivity outside the park.</li> <li>• Provide input through provincial review processes for proposed major developments outside the park that may impact the park’s ecosystem values.</li> <li>• Provide input into forest development and mineral exploration projects, and commercial recreation proposals near the park.</li> </ul>

### 3.2.2 Vegetation

Vegetation health is directly affected by environmental disturbances like wind, fire, insects and disease that naturally occur as well as climate change. The area around Fortress Lake is the most dynamic in terms of natural disturbances to vegetation.

In 1960 a major wildfire occurred on the northeast side of Fortress Lake affecting an area of about 325 hectares. While a significant amount of forest was affected it did increase the bear habitat (especially for berries) and the Moose habitat. There are also several other areas along the lake where natural disturbances from avalanches and rockslides have removed large areas of forests and replaced it with alder and willow shrubs. In comparison, wind, insect, and diseases do not appear to have affected vegetation in the park to any significant degree.

No inventory or assessment has been done for plant species in the park other than incidental records usually related to other natural values. The lack of information on plant species in the park, including species at risk, is a significant gap in the understanding of this ecosystem component. In the absence of local data on climate change, projected changes for the region are managed as “risks” rather than “certainties”. Some elements, such as future temperature, the direction of movement of the treeline and snowline, are more certain than others; it may be possible to begin managing some of these risks by filling the species information gaps.

Management Objective	Management Strategies
To improve knowledge of the vegetation communities in the park, with emphasis on species at risk and those most sensitive to climate change.	<ul style="list-style-type: none"> <li>• Gather vegetation information to locate, identify, and map plant communities, rare species and threatened plant communities in areas that could potentially be impacted by climate change or recreation.</li> <li>• Develop a wildfire response strategy including a Fire Management Plan that supports restoration of natural processes. Establish a Long-term Ecological Monitoring (LTEM) site in an alpine area of the park.</li> </ul>

### 3.2.3 Aquatic Ecosystems

Aquatic ecosystems in the park are generally not considered to be significantly at risk to impacts given the low levels of recreational use and development in the park. As Fortress Lake and the creeks have harsh conditions of cold temperatures, significant turbidity and little aquatic vegetation, they have very limited biodiversity or associated issues with the exception of the introduction of Eastern Brook Trout (which is discussed in the next section under Fish). The use of combustion engines on boats and floatplanes can potentially affect waterfowl and other wildlife through noise and petro chemical pollution. As this activity is infrequent in Hamber Park, it is difficult to determine if there are impacts occurring but none have been identified to date.

Management Objective	Management Strategies
To manage impacts on aquatic ecosystems in the park.	<ul style="list-style-type: none"> <li>• Establish baseline impact monitoring sites along the shoreline where recreational use is occurring to enable ongoing monitoring of impacts.</li> </ul>

### 3.2.4 Fish

From observation and fishing success records, Eastern Brook Trout seem to be doing reasonably well in Fortress Lake and are thought to be self-sustaining. This is despite the challenging site conditions of: turbidity from glacial melt water; low nutrient levels; and a cold mountain climate that limits food productivity. Two studies concluded<sup>5</sup> that a trophy fishery could not be sustained over a long period. Several fish surveys have been conducted to determine number of fish and their size, capacity of the lake to produce fish and where and when they spawn but research has been inconclusive. As most studies were done decades ago and the present observed conditions of the fishery are

<sup>5</sup> An Evaluation of the Brook Trout Fishery in Fortress Lake, Hamber Provincial Park by Michael Sather. 1984 and A Reconnaissance Survey of Fortress Lake by J.G. Norris and R.S. Hawthorn. 1985.

different than predicted, inventory and research are required to better understand the management needs.

It is BC Parks policy to manage and control exotic species as necessary to protect, and without jeopardizing, ecosystem health and biodiversity. No studies have been conducted concerning impact of Eastern Brook Trout on the Fortress Lake ecosystem and considering the long period of time since Eastern Brook Trout were introduced, they may have become naturalized to the lake ecosystem.

Without baseline information (from before the lake was first stocked) it is difficult to determine what affect the Eastern Brook Trout may be having on Fortress Lake. As there are no other known fish species in Fortress Lake or known specific ecosystem health issues related to Eastern Brook Trout, the conservation threat from the Eastern Brook Trout in the park is considered low.

There are, however, conservation concerns directly outside the park related to the possible spread of the Fortress Lake Eastern Brook Trout. Fortress Lake drains into the Wood River where Eastern Brook Trout and Bull Trout have been observed throughout its length. The Eastern Brook Trout are likely impacting the success of the native Bull Trout.

The source of Eastern Brook Trout in the Wood River is currently unknown but if it is determined that it is Fortress Lake, a control strategy may be appropriate to prevent Eastern Brook Trout escapement from Fortress Lake and to minimize impacts to other native species like Bull Trout while preserving a significant fishing opportunity. The conditions at the outlet of Fortress Lake (narrow and shallow channel with the low water velocity) may be favourable to establishing a fish barrier. Other management options, such as eradication and/or re-stocking with indigenous species such as Bull Trout or Westslope Cutthroat Trout, may also be possible but further research and assessment are required to determine if these actions are warranted or feasible.

Management Objective	Management Strategies
<p>To reduce the risk of Eastern Brook Trout escapement from Fortress Lake while ensuring a sustainable trophy fishery.</p>	<ul style="list-style-type: none"> <li>• Work with appropriate agencies to determine, through DNA sampling, if Fortress Lake is the source of Eastern Brook Trout in the Wood River. Assess risks, feasibility, costs and benefits of options with appropriate agencies to prevent Eastern Brook Trout escapement from Fortress Lake.</li> <li>• Develop a strategy to continue a trophy fishery on Fortress Lake subject to successfully addressing conservation concerns for escapement into the Wood River.</li> <li>• Continue to build on the knowledge gathered from previous fish studies and conduct a series of creel</li> </ul>

Management Objective	Management Strategies
	censuses over time that will provide a better understanding of Eastern Brook Trout including growth and affect on the ecosystem.

### 3.2.5 Wildlife

While there is significant information known about wildlife in adjacent areas, there have been few wildlife studies done in Hamber Park. The only known study is one on bear/human conflicts from 1985. Baseline wildlife data on species diversity and habitat are lacking. Because wildlife is an important component of the Hamber Park ecosystem, more reliable data needs to be gathered to determine the conservation significance of wildlife in Hamber Park and identify any associated management issues.

In the past, bears have been the main wildlife species of management concern in the park. Early on when people first started recreating in Hamber Park, Grizzly Bears and Black Bears came into conflict with humans and bears were killed. The underlying cause of the conflicts was usually improper storage of food and removal or disposal of waste. Today, proper facilities, public education and monitoring are more regularly provided so these conflicts are less common. Bears and humans will continue to share the same space and seek the same food sources (fish and berries) so conflict prevention and management to avoid human-caused wildlife mortality are ongoing needs in the park.

The park's shared boundaries with Jasper National Park and the large home range of some species such as Grizzly Bears, also suggest a need to coordinate management of wildlife across jurisdictional boundaries.

Management Objective	Management Strategies
To enhance the knowledge and understanding of the park's wildlife species and their habitats.	<ul style="list-style-type: none"> <li>Conduct a wildlife and habitat overview inventory with priority on red- and blue-listed species and species sensitive to climate change. Update previous data on bears in the park including habitat assessments.</li> </ul>
To maintain wildlife species representative of the ecosystem.	<ul style="list-style-type: none"> <li>Work with Jasper National Park and other agencies to protect migration corridors for wide ranging species such as Mountain Caribou and Grizzly Bear.</li> <li>Continue as required to implement procedures to minimize potential bear/human conflicts in areas of known bear concentration through: public information; proper location and design of trails campsites and facilities; garbage management; temporary area closures; and removal of problem</li> </ul>



Management Objective	Management Strategies
	<p>bears, if appropriate.</p> <ul style="list-style-type: none"> <li>• Coordinate bear and visitor management with Parks Canada in the Chaba Creek trail corridor.</li> </ul>

### 3.2.6 Access

In the early 1970s the park was accessible only by floatplane or by horseback riding or hiking from Jasper National Park, though the latter two methods were challenging. In 1985, a trail and footbridge were built to cross the Athabasca River in Jasper National Park to enable much improved access to Hamber Park for hikers and mountain bikers. Even though one still needed to ford the Chaba River, which at times is challenging for inexperienced backcountry users, it was anticipated that these improvements would increase recreational use in the park. However, despite these improvements, visitation continues to be at lower levels than expected. The Athabasca River footbridge was unfortunately destroyed in the fall of 2014 adding an additional challenge to providing access to Hamber Park. It is uncertain that replacing this bridge and adding one over the Chaba River would make a significant difference in use levels at the park given the low levels of past use.

Access by horse was not very popular as there are few grazing opportunities along the access trail and once at Fortress Lake steep terrain limits where you can go with a horse. Given the isolation and these limitations, floatplane access will likely be the predominant means of access to the park for the foreseeable future.

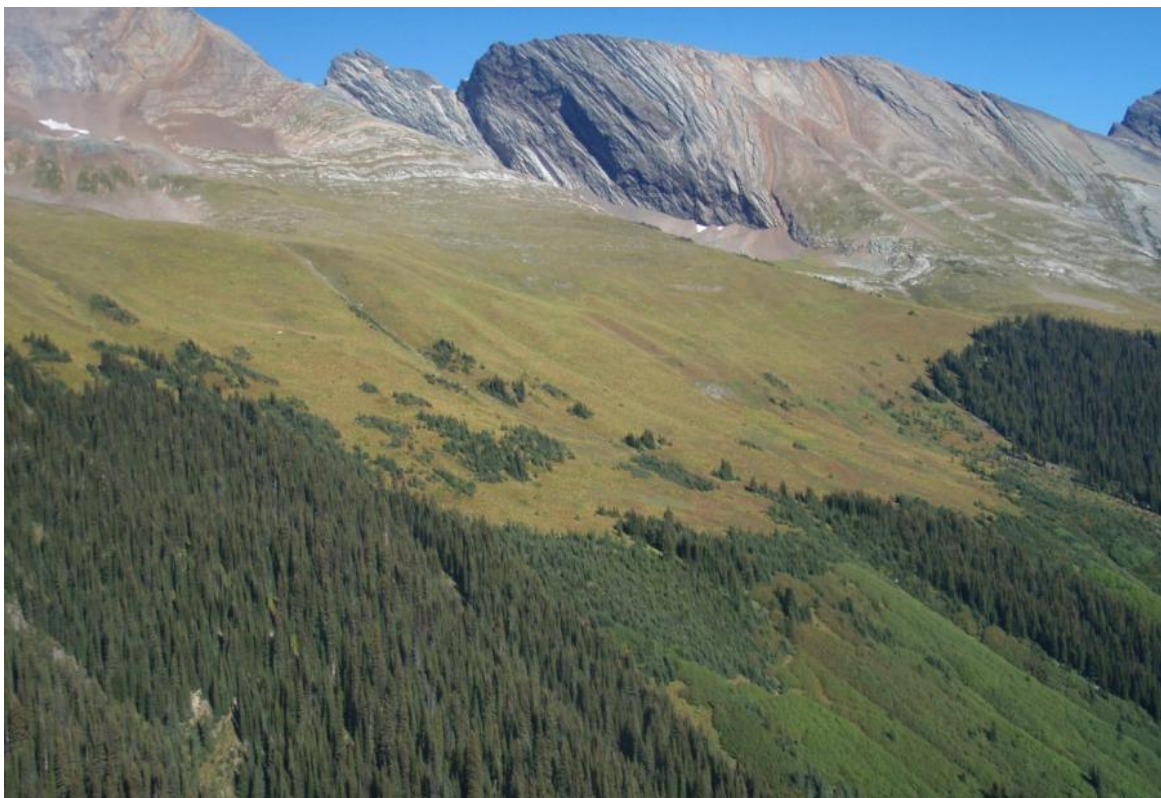
Management Objective	Management Strategies
To enhance non-motorized access through Jasper National Park to the eastern boundary of Hamber Park.	<ul style="list-style-type: none"> <li>• Work with Jasper National Park to investigate strategies and the feasibility of restoring and potentially enhancing hiking and mountain biking access to Hamber Park.</li> </ul>
To continue allowing floatplane access and the use of power boats on Fortress Lake.	<ul style="list-style-type: none"> <li>• Manage potential impacts of commercial floatplane use through park use permit conditions.</li> <li>• Work with the BC Floatplane Association to ensure visitors arriving by private floatplane are aware of site conditions for safe and sustainable use.</li> <li>• Continue to allow motorized boat use on Fortress Lake.</li> </ul>

### 3.2.7 Recreation

Recreation usage and trends in Hamber Park have changed since the last management plan was developed. Much of the direction in the 1986 plan was based on the expectation that there would be considerable increase in air access and backpacking in the park, but those increases have not occurred. While air access is still the main form of access, it has not grown as expected and backpacking has not increased as expected. Changing demographics and much higher fuel costs may have influenced these trends.

The future of recreational use in Hamber Park is strongly linked to the future of a trophy fishery. Without the main attraction that has brought visitors to the park over the decades, recreational use in the park could significantly decline. If the conservation concerns mentioned in the Fish section are resolved, the fishing focus of recreation in the park would continue.

As the shoreline of Fortress Lake is mostly steep or marshy, and the few accessible sites are already developed with some facilities, most of the potential for other recreational opportunities in the park lie not on the lakeshore but in the upper elevations. Many of the outstanding recreation and scenic features of the park are at higher elevations such as the extensive alpine meadows in the upper Fortress, Washout and Alnus creek areas.



**Photo: Upper Alnus Creek**

These areas can potentially offer quality alpine wilderness experiences for hiking, back packing, wildlife viewing and mountaineering but at the moment there hasn't been much public interest in these opportunities. However, as the commercial interests in Hamber Park (i.e. the Fortress Lake fishing camp), originally opened up access to the lake and generated public interest in going to the park, there may be a potential for similar opportunities for the alpine areas including future potential for supplying appropriate fixed roof accommodation or additional camping opportunities and helicopter access to these areas. With the close proximity of an international tourist destination (Jasper National Park), which does not allow helicopter access to alpine areas, there may be a potential market in Hamber Park.

Management Objective	Management Strategies
<p>To maintain fishing as a recreational opportunity in the park subject to resolving conservation concerns for escapement of Eastern Brook Trout into the Wood River.</p>	<ul style="list-style-type: none"> <li>• Maintain the lakeside camping opportunities.</li> <li>• Continue to authorize by park use permit one fishing camp operator to provide both overnight accommodation and guest services at the fishing camp location. This includes aircraft access as well as authorization to complete periodic maintenance of campsites and trails.</li> <li>• Reduce the visual impact of the fishing camp structures from the north shore and the lake by considering options with the fishing camp operator to modify the roof colours so they are more compatible with the visual quality of the surrounding forest.</li> </ul>
<p>To increase the diversity of recreational experiences.</p>	<ul style="list-style-type: none"> <li>• Provide information on self-sufficient (i.e., no trails or other facilities) wilderness hiking, backpacking, mountaineering and wildlife viewing in the alpine areas of the park.</li> <li>• Periodically review recreational use to determine the potential demand for expanding appropriate alpine recreational opportunities beyond the current self-sufficient wilderness experience and potentially supplying appropriate fixed-use accommodation options to support this.</li> </ul>

### 3.3 Zoning Plan

In general terms, a zoning plan (Figure 4) divides a protected area into logical management units within which certain activities/uses are permitted and a particular set of management objectives apply. Zoning is often used to physically separate incompatible activities or uses within the protected area and provides visitors and managers with a quick visual representation and appreciation of how a particular protected area is managed. Zones are designed to reflect the physical environment, existing patterns of use and the desired level of management and development in a given management unit.

#### 3.3.1 Wilderness Recreation Zone

##### **Zone Description:**

This zone, covering about 23,990 hectares (95.4%) of the park area, encompasses the valleys and glacial mountain landscape of the park.

##### **Objective and Management Intent:**

The objective of this zone is to protect a remote, undisturbed natural landscape and to provide backcountry recreation opportunities dependent on a pristine environment.

The Wilderness Recreation Zone is intended to be managed for wilderness-based backcountry recreation with no facilities and low visitation.

#### 3.3.2 Nature Recreation Zone

##### **Zone Description:**

This zone encompasses all of Fortress Lake and the shoreline. It is applied to areas that have more concentrated levels of use and infrastructure support than the Wilderness Recreation Zone. It covers about 1,147 hectares (4.6%) of the park area of which about 880 hectares is the water surface of Fortress Lake.

##### **Objective and Management Intent:**

This zone is intended to protect scenic values while providing backcountry recreation opportunities and appropriate facilities in a largely undisturbed natural environment.

It is to be managed for a wide range of recreational opportunities including fishing, camping, motor boat use, hiking, mountain biking access, kayaking and wildlife viewing and provides for supporting facilities like campsites and the structures at the fishing camp. Low frequency access into this zone by floatplane is appropriate.

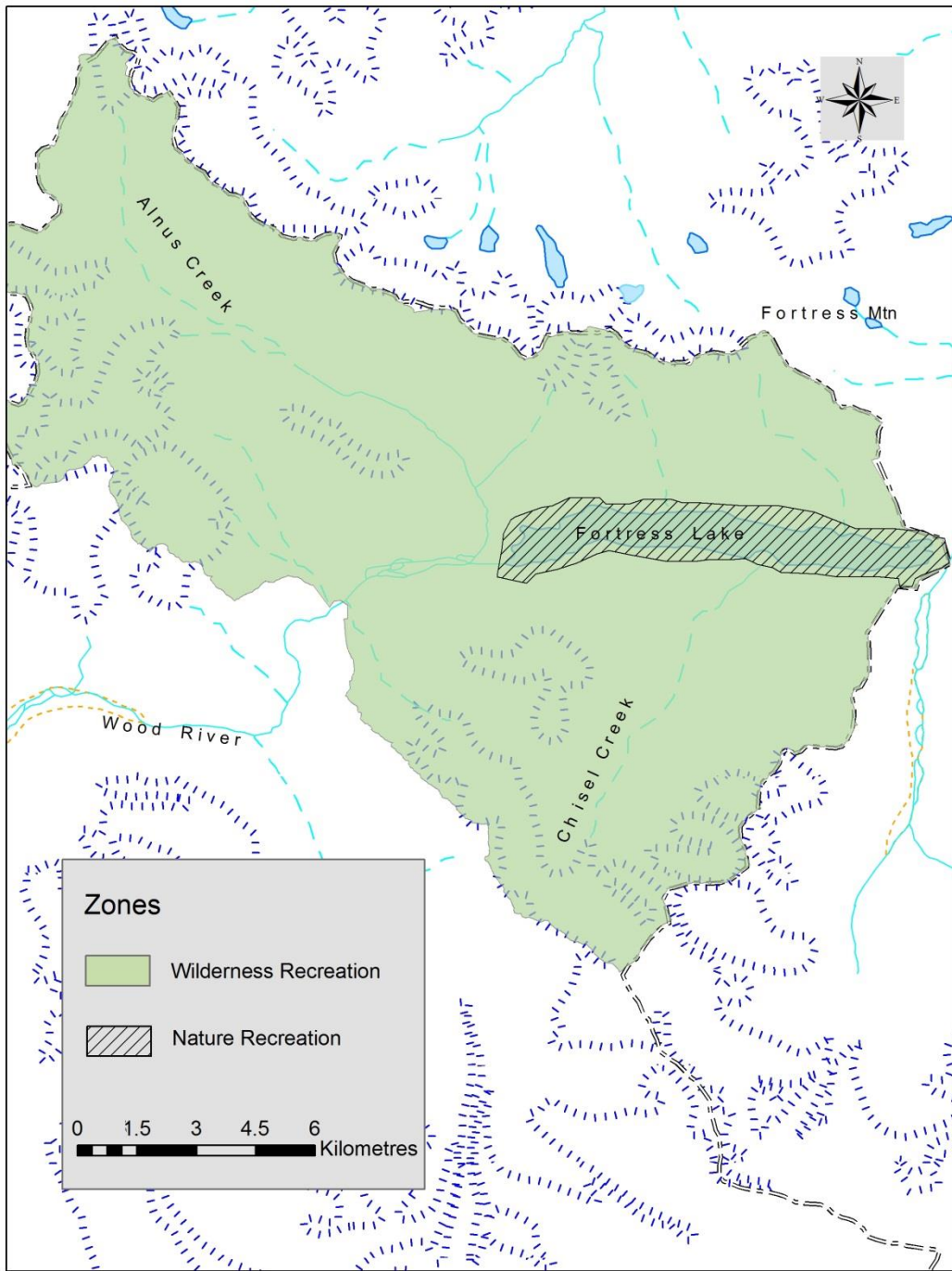


Figure 4: Zoning Map for Hamber Park



## 4.0 Plan Implementation

### 4.1 Implementation Plan

BC Parks will seek project-specific funding and partners to implement high priority strategies and to monitor key performance measures. Specific projects will be evaluated for their priority in relation to the overall protected areas system. Many of the initiatives contemplated are not funded as part of core BC Parks activities so jointly seeking funds or outside partners will be a key aspect of the management plan implementation

### 4.2 High Priority Strategies

The following strategies have been identified as high priorities for implementation:

- Work with appropriate agencies to determine, through DNA sampling, if Fortress Lake is the source of Eastern Brook Trout in the Wood River. Assess risks, feasibility, costs and benefits of options with appropriate agencies to prevent Eastern Brook Trout escapement from Fortress Lake.
- Develop a strategy to continue a trophy fishery on Fortress Lake subject to successfully addressing conservation concerns for escapement into the Wood River.
- Continue to authorize by park use permit one commercial recreation fishing camp operator to provide both overnight accommodation and guest services at the fishing camp location. This includes aircraft access as well as authorization to complete periodic maintenance of campsites and trails.
- Manage potential impacts of commercial floatplane use through park use permit conditions.
- Work with the BC Floatplane Association to ensure visitors arriving by private floatplane are aware of site conditions for safe and sustainable use.
- Work with Jasper National Park to investigate strategies and the feasibility of restoring and potentially enhancing hiking and mountain biking access to Hamber Park.

### 4.3 Plan Assessment

In order to ensure that the management direction for Hamber Park remains relevant and effective, BC Parks staff will ensure that the management plan is assessed by BC Parks staff on a regular basis (i.e., at least every 5 years). Minor administrative updates may be identified and completed at any time (e.g., correct spelling errors, update protected area details where needed), and will be documented according to BC Parks guidelines.



If an internal assessment reveals that the management plan requires updating or substantial new management direction is needed, a formal review by BC Parks, First Nations or other partner(s) may be initiated to determine whether the plan requires an amendment or if a new plan is required.

The management plan amendment process or development of a new plan includes an opportunity for public input.

## Appendix 1: Appropriate Use Table

The following table summarizes existing and potential future uses in Hamber Park that are and are not appropriate in each zone. This is not intended to be an exhaustive list of all uses that may be considered in this protected area in the future.

Please note that appropriate uses may be geographically restricted (i.e., only allowed in certain areas of Hamber Park or are only appropriate at certain times of the year). Please ensure that you are well informed of any use restrictions as indicated in the table. It is important to review relevant sections of the management plan when interpreting the table.

Appropriate Use Table Legend		
<b>N</b>	<b>Not an appropriate use</b>	The use is not appropriate in the indicated zone. If the use currently exists but the management planning process has determined that the use is no longer appropriate in all or part of the protected area, the management plan will include strategies for ending the activity (e.g., phasing out, closing).
<b>Y</b>	<b>May be an appropriate use</b>	Some level or extent of this use may be appropriate in the zone indicated. The management plan may provide guidance on the appropriate level of use and may address specific restrictions or planned enhancements (e.g. capacity, designated areas for a particular activity, party size, time of year, etc.).  For new or expanded uses, this symbol indicates that the use <u>may be considered</u> for further evaluation. The appropriateness of some activities may not be confirmed until a further assessment (e.g., BC Parks Impact Assessment Process) or evaluation process (e.g., park use permit adjudication) is completed.
<b>N/A</b>	<b>Not an applicable use in this zone</b>	It is not feasible for the use to take place in this zone (e.g., mooring buoys in a terrestrial zone).

Activity/Facility	Zone 1 Nature Recreation Zone	Zone 2 Wilderness Recreation Zone	Comments
Aircraft Landing/Takeoff	Y	Y	
Boating (human powered and electrical)	Y	N/A	
Boating (combustion engine)	Y	N/A	
Camping (designated sites)	Y	Y	
Camping (wilderness style-undesigned sites)	N	Y	
Fish Stocking	Y*	N	*subject to approved fisheries management strategy
Fishing	Y	Y	
Hiking	Y	Y	
Hunting	Y	Y	

Activity/Facility	Zone 1 Nature Recreation Zone	Zone 2 Wilderness Recreation Zone	Comments
Land-based Mechanized Activity (e.g., mountain biking)	Y	N	
Land-based Motorized Activity (e.g., 4x4, motorcycles, ATV-not including snowmobiles, snowcats or aircraft landings)	N	N	
Horse and Pack Animal Use	N/A	N/A	
Skiing (backcountry)	Y	Y	
Snowmobiling	N	N	
Snowcat Use	N	N	
Boat Launches	N	N	
Boat Wharves and Docks	Y	N/A	
Cabins, Huts and Shelters (as defined in the Fixed Roof Accommodation Policy)	Y	Y	
Lodges (as defined in the Fixed Roof Accommodation Policy)	Y	Y	
Designated Camping Sites (not vehicle accessed)	Y	Y	
Parking Lots	N	N	
Roads	N	N	
Trails	Y	Y	
Visitor Information Buildings	N	N	
Commercial Filming	Y	Y	
Grazing	N	N	