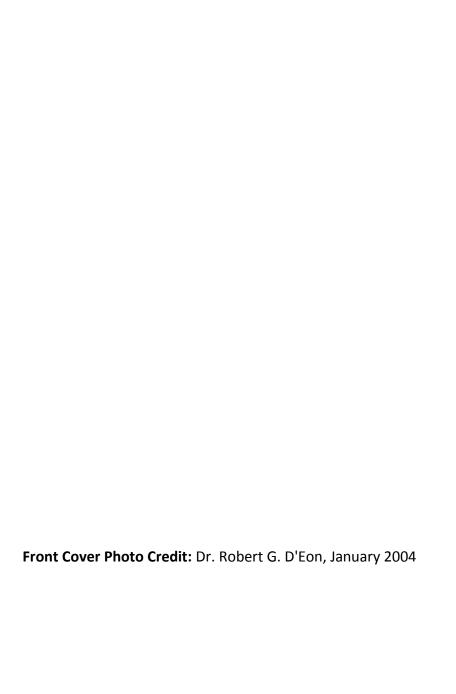


Kokanee Glacier Provincial Park Management Plan





Kokanee Glacier Provincial Park Management Plan

Approved by:

Scott Benton

Executive Director

Parks and Protected Areas Division

Plan Highlights

- The vision is that the park will be managed in perpetuity for both year-round recreation and tourism opportunities, and wilderness conservation. The enhancement of wilderness values will occur over time through the restoration of damaged and/or closed sites, the minimization of human impacts and the emphasis on a more scientific ecosystem-based approach to management. Ecologically sustainable tourism will continue to play an important role in fostering a greater understanding of, and appreciation for, the park's natural and cultural heritage values. The park will continue to contribute to the economy of local communities.
- The recreation and conservation goals of the park are achieved by managing for high recreation use in the Gibson Lake area; moderate to low use in the main backcountry areas around Kaslo Lake, the Kokanee Glacier Cabin and the western fringes of Helen Deane Lake; and low recreation use in the remainder of the park where conservation values are high. The hiking corridors along Kokanee Creek and Keen Creek have been zoned as Nature Recreation, leaving a large portion of the park as a Wilderness Recreation Zone (approximately 30,757 hectares). Trail corridors through drainages receiving lower visitation are also zoned as Wilderness Recreation and mechanized use will not be permitted. Gibson Lake is zoned as Intensive Recreation. The historic Slocan Chief Cabin is zoned as Special Feature.
- Management strategies for natural and cultural values include:
 - conducting comprehensive flora and fauna inventories in high-use areas of the park to establish an information base for managing impacts from recreation use;
 - developing a carrying capacity model for the high-use park recreation areas;
 - maintaining core habitat for Grizzly Bears and other endangered/vulnerable wildlife;
 - exploring options for allowing mechanized access within the Keen Creek drainage;
 - permitting helicopter access to designated locations on a seasonal basis; and,
 - investigating pre-contact use in the park by First Nations.
- Management strategies for outdoor recreation opportunities include:
 - promoting the Kokanee Glacier Cabin as a year-round recreation destination;
 - maintaining strategic trail corridors (e.g., Kokanee Creek) into the main backcountry areas of the park to allow novice park visitors to experience mountain wilderness;
 - providing park visitors with self-serve interpretive displays and facilities that highlight the mining history of the park; and,
 - maintaining cabins in summer months at the headwaters of Woodbury Creek and Silver Spray Creek for use by experienced backcountry travellers.

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Introduction

1.1 Management Plan Purpose

This management plan establishes objectives and strategies for the long-term management of Kokanee Glacier Provincial Park. The management plan is based on direction from the West Kootenay-Boundary Land Use Plan, the Kootenay-Boundary Implementation Strategy, goals of the Protected Areas Strategy, the BC Parks' Conservation and Recreation Goals and the legislative framework of the *Park Act*.

The management plan encapsulates a management vision that is based on the goals, dreams and aspirations of a variety of users and participants in the management planning process.

The original management plan for the park (1990) is now outdated because of facility infrastructure removals and additions, changing outdoor recreation trends and park boundary changes.

1.2 Planning Area

Kokanee Glacier Provincial Park is situated in southeastern British Columbia in the Kokanee Range of the Selkirk Mountains, northeast of the City of Nelson. The park lies between the Monashee Mountains to the west and the Purcell Mountains to the east. The Selkirk Mountains are bounded by major lakes that dominate the West Kootenay landscape, namely Kootenay Lake and Slocan Lake.

The park is one of British Columbia's oldest provincial parks. Set aside in 1922 as Kokanee Park, it followed the establishment of three other provincial parks: Strathcona on Vancouver Island in 1911, Mount Robson in 1913, and Garibaldi in 1920. Initially, the purpose of these parks was to have scenic mountain wilderness areas for tourist use.

The park (25,900 hectares) was designated as a Class "A" park in 1940 and expanded in size in the mid-1990s to 32,035 hectares (as a result of the West Kootenay-Boundary Land-Use Plan) (WKBLUP). It is named and described in Schedule C of the *Protected Areas of British Columbia Act*.

The park supports a wide range of species, many of which are provincially listed as endangered or vulnerable. The park provides essential habitat for Grizzly Bear, Mountain Goat, and Wolverine, and the presence of other species at risk is strongly suspected. Significant fish values are present in the park including spawning habitat for provincially-listed Bull Trout and Cutthroat Trout.

While the park retains significant wilderness features, it is easily accessible because of extensive logging road networks outside of the park and well-established trails within the park. Owing to the lucrative mining activity at the turn of the 19th century, many popular trails in the park are former ore hauling routes.

Recreational activities in the summer months are dominated by hiking and backpacking, mostly situated around the Slocan Chief Cabin and the Kaslo Lake areas. The trail corridor through the Gibson Lake day-use area (Kokanee Creek) is the preferred access to the park.

The Kokanee Glacier Cabin (completed in 2003) is quickly becoming a destination for both day-use hikers and overnight visitors seeking amenities, replacing the historic Slocan Chief Cabin. In addition, backcountry cabins situated in the Silver Spray and Woodbury drainages receive a steady number of experienced backcountry enthusiasts. The cabins at these locations require visitors to be more self-sufficient than those using the Kokanee Glacier Cabin.

Frontcountry recreational activities are focussed in the Gibson Lake area. The lake provides fishing and hiking opportunities and a day use shelter which is commonly used by schools and other large groups. A demonstration forest is located outside of the park along the road to Gibson Lake. This forest complements the self-serve interpretation features of the area.

The popularity of backcountry skiing in the park has increased dramatically in the last two decades. Originally, accommodation for skiers was available at the Slocan Chief Cabin on a first come-first serve basis. Skiers would travel in and out of the park on skis/snowshoes. Following conflicts amongst users at the cabin for available bed space, BC Parks instituted a lottery system to better regulate visitor capacity at the cabin. The Kokanee Glacier Cabin replaced the Slocan Chief Cabin (now only used for day-use activities) as the overnight base for skiers in 2004. The lottery system remains in effect and is managed by a private contractor with use limits set by BC Parks. Because of hazardous avalanche terrain in all access corridors leading to the park, a helicopter taxi service is an integral component of the backcountry skiing.

First Nation historical use within Kokanee Glacier Provincial Park is not documented. Numerous place names within the park have First Nations origins. It is believed that First Nations associated with the Sinixt, Okanagan, Shuswap and Ktunaxa people may have been resident or transitory on the landscape prior to European contact.

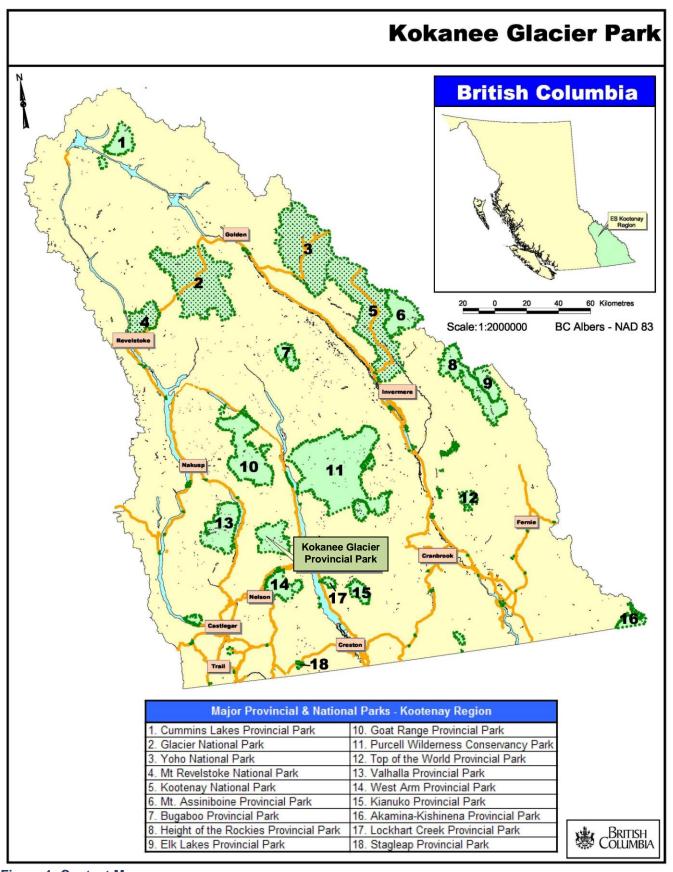


Figure 1: Context Map

1.3 Kootenay-Boundary Land-Use Planning

West Kootenay-Boundary Land-Use Plan

Land use planning in the Kootenay-Boundary region of southeastern British Columbia entered a new era with the provincial government initiative to prepare a strategic land use plan. The West Kootenay-Boundary Land-Use Plan (WKBLUP) recommended various land uses, including protected areas, over the entire region.

In addition to allocating land use, the WKBLUP established land use management guidelines through the Kootenay-Boundary Land Use Plan Implementation Strategy (KBLUP-IS). The land use management guidelines are intended to provide broad, corporate guidance to managing agencies. These guidelines help to integrate land use management with a variety of government strategic policies such as the provincial Grizzly Bear Conservation Strategy.

With respect to protected areas, the KBLUP-IS emphasizes the importance of cooperative management of values both within parks and adjacent areas "to ensure that parks can effectively protect sensitive values contained within them." To this end, general management objectives and strategies associated with environmental, recreational and tourism values are provided in the land use plan for inclusion in park management. These include objectives and strategies for: park planning, pre-existing tenures, in-holdings, natural occurrences, and park management.

KBLUP-IS Management Direction for Kokanee Glacier Provincial Park

KBLUP-IS provided specific management direction for nine protected areas that were established in the West Kootenay. In the case of Kokanee Glacier Provincial Park, this involved extending the park boundaries to incorporate much of the former Kokanee Glacier Recreation Area. The management emphasis focussed on conservation given the importance of key Grizzly Bear habitat contained within much of the provincial park.

Specific management direction for areas adjacent to the park was identified through wildlife connectivity corridors, priority Grizzly Bear Management Areas and by delineating Special Resource Management Zones (SRMZ) and Integrated Management Zones (IRMZ).

Kootenay-Boundary Higher Level Plan Order

The Kootenay-Boundary Higher Level Plan Order (October 2002) (KBHLP) followed revisions to an early Higher Level Plan Order (January 2001). The order is a legal tool that revised earlier land use planning. The KBHLP effects land use immediately adjacent to the park and influences ecosystem integrity and function (e.g., wildlife connectivity, foraging and road access). Unlike the 2002 order, earlier land use planning allowed the forest industry to harvest more wood from mature forest areas (100 - 250 years old) because they were considered to be of lower environmental value.

The legal establishment of new Resource Management Zones (RMZ) and changes to the Enhanced Resource Development Zones (ERDZ) form the basis of the KBHLP. Many of the guidelines in the KBLUP-IS remain in effect. The total area in protected areas is unaffected by the changes to the order.

1.4 Relationship with First Nations

Kokanee Glacier Provincial Park lies within the asserted traditional territory of two First Nation tribal councils: the Ktunaxa Nation Council and the Okanagan Nation Alliance. This management plan identifies opportunities to work collaboratively with First Nations to ensure that park management considers their traditional uses. First Nations can exercise their rights for food, social and ceremonial uses in the park and the management plan will not limit subsequent treaty negotiations.

Ktunaxa

The asserted traditional territory of the Ktunaxa people covers the Kootenay Region and extends into the United States. In British Columbia the Ktunaxa Nation Council includes four Indian Band members: St Mary's Band, Tobacco Plains Band, Columbia Lake Band and 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 has signed a government to government memorandum of understanding (MOU) with the Province for parks management in the Kootenay Region. The MOU makes provisions for the parties to cooperate on a variety of management activities including planning, boundary reviews, economic development and capacity building.

Okanagan

The Okanagan Nation Alliance asserted traditional territory extends from the Okanagan Valley to the West Kootenays and includes the Upper and Lower Arrow lakes. The alliance is composed of seven Indian Band members including; Lower Simikameen, Upper Similkameen, Osoyoos, Penticton, Westbank, Okanagan and Upper Nicola bands. The Westbank Indian Band is currently negotiating a treaty with the Province of British Columbia.

1.5 Ecosystem-Based Management Approach

To enhance ecosystem values and processes, BC Parks is moving toward a more science dependent ecosystem-based management approach for protected areas. This approach requires:

- integration of available science-based information with management;
- understanding of the interrelationships of the ecosystem's biological and non-biological components;
- a focus on long-term/or large-scale issues;
- a holistic view of the environmental system and environmental problems; and,
- interagency cooperation given ecosystems extend beyond jurisdictional boundaries.

Much of the understanding, knowledge and practices required to implement an ecosystem management approach for protected areas are still in the formative stages and will be developed over time.

Since the home range of various wildlife species is much larger than the park, effective management of the ecosystems is a challenge. The efforts to preserve and maintain species diversity within the park could be negatively influenced by land management practices

outside of the park. The concepts of island biogeography¹ are becoming more apparent in many large wilderness parks and Kokanee Glacier Provincial Park is no exception. Development (primarily logging) adjacent to the park is ongoing and can adversely affect wilderness values if not carried out in a complementary manner.

The Kootenay-Boundary Land Use Plan Implementation Strategy (KBLUP-IS) emphasized the importance of an ecosystem-based approach to land and resource planning and management. The KBLUP-IS noted the need to maintain healthy functioning ecosystems and to maintain ecosystem representation in protected areas. Through land use resource management zones, the KBLUP-IS provides management direction for areas outside the park. With the park as a Protected Zone, it is flanked to the north and west by an Integrated Resource Management Zone (IRMZ) and in the south and east by a Special Resource Management Zone (SRMZ) that recognizes sensitive features such as wildlife connectivity that support species in Kokanee Glacier Provincial Park.

There are large gaps in the information and understanding of the ecosystems in Kokanee Glacier Provincial Park. Over the last several decades much of the management effort in the park has been directed to recreational values and enhancement. A shift in management focus is needed in order to develop a strategy for ecosystem management. Information and knowledge gaps need to be bridged and concise management practices developed.

1.6 Management Planning Process

The 1990 management plan for the park provided a foundation for this new management plan. The park has undergone several significant changes since 1990 (e.g., park boundary extension, conservation priorities, cabin renovation and construction).

This new management plan relies on current park values information obtained from the background report. Familiarization with the 2004 background report is recommended to fully understand this management plan.

BC Parks prepares management plans with a high degree of public involvement. Both the general public and interest groups had opportunities to provide input through a variety of means, including meetings and mail-outs.

Additional information was gathered from the West Kootenay-Boundary Land-Use Plan (1995) and Implementation Strategy (1997), the Kootenay-Boundary Higher Level Plan Order (2002), the Kokanee Glacier Provincial Park and Recreation Area Master Plan (1990), the Kokanee Glacier Provincial Park Addition Management Direction Statement (1999), and the Kokanee Glacier Provincial Park Background Report (1989) and (2004).

¹ The concept of Island Biogeography proposed by MacCarthur and Wilson (1962) states that big reserves are better than small reserves and that connected (or close) reserves are better than unconnected reserves.

2.0 Values and Roles of the Park

2.1 Biological Diversity and Natural Environment

Summary

Kokanee Glacier Provincial Park plays a major role in protecting the representative natural ecosystems of southeastern British Columbia. The park's conservation values were identified as "high risk" by the BC Parks Conservation Risk Assessment (2001). The Kootenay-Boundary Land Use Plan Implementation Strategy (KBLUP-IS) identified conservation as the management priority for the park addition (6,203 hectares).

- The park contributes significantly to protecting representative ecosystems and the Central Columbia Mountains Ecosection.
- The park contains significant habitat for a variety of wildlife species. Habitat types range from valley bottom to mountain top and include old-growth forests, riparian vegetation, alpine/sub-alpine meadows and lakes. Observed wildlife species include Mountain Goat, White-tailed Deer, Elk, Wolverine, Grizzly Bear, and over sixty bird species.
- The park, along with adjacent protected areas, has been identified as an integral component to wildlife connectivity in the West Kootenay.
- Ecosystems such as alpine meadows at Sapphire Lakes, Kalmia Lake and Helen Deane Lake maintain essential Grizzly Bear habitat.
- The park has a healthy and productive indigenous fishery in at least twenty-five of the lakes and associated creeks. Some streams contain blue-listed Bull Trout populations, while all fish-bearing lakes support healthy populations of endangered Cutthroat Trout.
- The convergence of multiple headwaters creates a hub for wildlife movement and genetic dispersion for numerous species. Rare natural features, such as old-growth forests, are associated with the many valleys emanating from the core park area.
- With the global climate change effects, several of the park's glaciers have become vulnerable to increased erosion, weathering and melting.
- The 2003 Woodbury wildfire provides an opportunity to study and research post-fire ecology in a sub-alpine environment.

Water and Fish

With respect to water values, the park is distinctive in the Kootenay Region. The park contains the headwaters to twelve separate watersheds. In addition, the park contains the headwaters of the Bjerkness Creek community watershed. Another two community watersheds abut the northwest boundary of the park² and there is domestic water use (four separate water licences) in the portion of Kokanee Creek in the park³.

The park contains six glaciers. Five of these glaciers each occupy less than 1 km². Kokanee Glacier is the largest and most prominent of the glaciers and encompasses a land area of

² See community watershed map in Background Report

³ See Appendix C in Background Report for water licence descriptions

approximately 4 km². All of the glaciers are slowly receding and the influences of climate change may have an impact on their future⁴.

Sixteen lakes within the park support fish. The majority of the larger lakes were stocked in the late 1970s and early 1980s with Cutthroat Trout. All of the fish bearing lakes within Kokanee Glacier Provincial Park have inlets or outlets that support spawning populations of endangered Cutthroat Trout (blue listed). Bull Trout, which is found predominantly in Keen Creek and the lower reaches of Coffee Creek, is also provincially blue-listed. Other fish species known to occur within streams in the park are Mountain Whitefish, Rainbow Trout, Slimy Sculpin, Torrent Sculpin and Brook Trout.

Vegetation

Within the Kootenay Region, the park contributes over 11% of the protected landbase. With the exception of past logging in Coffee Creek and to a lesser extent Woodbury Creek, vegetation has been minimally disturbed by industrial use and activity.

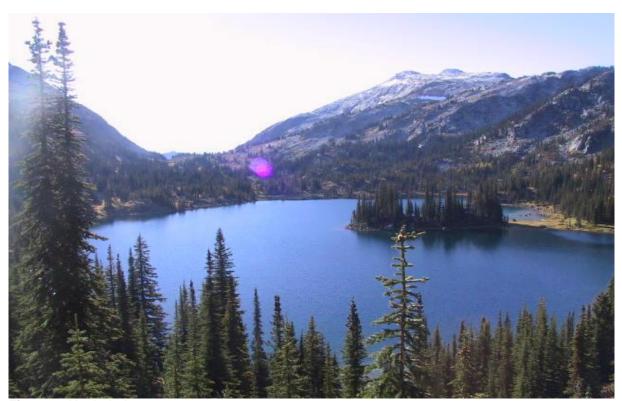


Figure 2: Kaslo Lake

Despite its small size compared to larger protected areas such as Goat Range Provincial Park or the Purcell Wilderness Conservancy Provincial Park, the park contains a variety of biogeoclimatic zones that extends from valley bottom to mountain peak. There are seven Biogeoclimatic Ecosystem Classification (BEC) subzones/variants found within the park. The park is a minor contributor (7% and 3%) to ESSFwc1 (Engelmann Spruce Subalpine Fir Columbia Wet Cold) and ICHmw2 (Interior Cedar Hemlock Columbia-Shuswap Moist Warm),

⁴ Based on physical and photo observations only. No recent studies of glaciers in the park have been conducted. Studies performed in the 1960s were unavailable for review.

two biogeoclimatic subzone/variants that are under-represented in the province's protected areas system (6% and 8% respectively). Kokanee Glacier Provincial Park provides the third greatest contribution (18.8%) to the ESSFwc4 (Engelmann Spruce Subalpine-Fir Selkirk Wet Cold) subzone/variant in the Central Columbia Mountains Ecosection.

The park is dominated by high elevation ecosystems, with close to 40% of the park classified as alpine⁵. Old-growth forests (averaging more than 140 years in age) constitute approximately 30% of the park⁶. Late-seral stage forests along with unique alpine meadows provide essential year-round habitat for a variety of wildlife species. The 2003 high intensity wildfire along the northern slopes of the Woodbury drainage removed a considerable amount of forest cover and understory vegetation. In some areas, the burn intensity was so severe that all organic material and soil substrate were removed.

Because twelve watersheds originate in the park, there is significant riparian vegetation present in the park. Keen Creek has approximately 8 km of riparian corridor and supports the only area of Interior Cedar Hemlock Wet Cool Variant (ICHwk1) Biogeoclimatic Zone (BEC) found within the park.

Provincially listed endangered and vulnerable plant species inventories are lacking within the park. One known vulnerable listed flora species, St. John's-wort, has been identified within the park. Recent Predictive Ecosystem Mapping (PEM) has revealed the potential for there being two provincially listed plant communities within the park⁷, but this has not been confirmed by an on-site inventory.

Wildlife Values

Kokanee Glacier Provincial Park provides an extensive connectivity corridor that supports wildlife movement for many endangered and vulnerable species. Grizzly Bears and Wolverine, both of which are blue-listed (vulnerable) in British Columbia, have traditionally used the park. Fisher, a red-listed species (endangered), could potentially occur within the park but to-date no sightings have been reported. With increasing human development in the region, the park's wilderness becomes even more significant for wildlife.

The park includes the headwaters of several major creeks, making it a critical core connectivity area for the movement and genetic dispersion of Grizzly Bears (Figure 5). Although it is difficult to estimate with any degree of accuracy the number of Grizzly Bears that use the park annually, a consulting biologist estimated it could be up to 15 or more, including 3 - 4 nursery groups⁹. The headwater topography fosters rich riparian habitats for bears while valley sides are lined with avalanche chutes and provide an abundance of berries and other seasonal vegetation. The alpine also provides denning areas for Grizzly Bears while

⁵ Based on Baseline Thematic Mapping in Background Report

⁶ The Woodbury fire of 2003 considerably reduced old growth forest cover within the Woodbury drainage so this figure may be reduced following re-evaluation of forest cover within the park.

⁷ Subalpine fir / black huckleberry / bear-grass ESSFwc1/00 and subalpine fir / black huckleberry / bear-grass ESSFwc4/00, ESSFwc1/00 (KLFD and ABFD respectively)

⁸ See Appendix G.

⁹ Wayne McCrory RPBio pers. comm (2004)

mid-elevation old growth western redcedar forests provide denning structures for American Black Bears.

Due to the severe climate and generally rugged topography of the park, only the most resilient and adaptive wildlife species flourish. Both Bighorn Sheep and Caribou were once known to use the park but are now locally extirpated ¹⁰. In spite of the absence of detailed study, over sixty different bird species have been observed within the park. In addition, visual observations from helicopters and hiker traffic have shown that Mountain Goats utilize remote sections of the park, usually along the isolated ridges above tree line, namely in the Coffee, Enterprise, Woodbury and Keen creek drainages.



Figure 3: Wildfire Damage at Woodbury Trail

¹⁰ BC Parks Conservation Risk Assessment: Kootenay Region (2001).

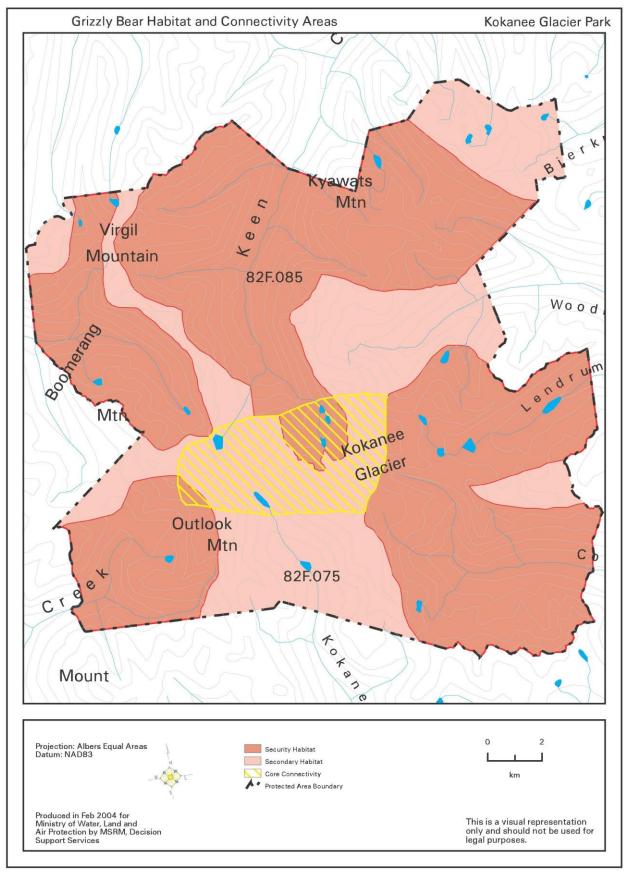


Figure 4: Grizzly Bear Habitat and Connectivity Areas Map

2.2 Cultural Heritage

Summary

Kokanee Glacier Provincial Park plays a role in protecting the representative cultural heritage features of southeastern British Columbia.

- The strategic park position at the headwaters of several major creeks combined with habitat supporting a variety of wildlife species suggests that First Nations would have used the park prior to European contact and colonization.
- The area's rich mining history dates back to the late 19th century and remnants of this
 era are still visible in the park today. Many of the existing trails are essentially former
 ore hauling routes.
- The Slocan Chief Cabin, built in 1896, is one of the last standing past mining activity vestiges. Although weather and time have taken their toll on the log structure, a restoration project has recently been completed, using largely volunteers¹¹ to revitalize the cabin and promote it as an interpretive attraction.
- At one time, up to fifteen mine sites dotted the landscape in Kokanee Glacier
 Provincial Park. In some locations, excavations and vertical shafts are still present
 along with discarded machinery and equipment. These unique features present a
 safety hazard to the general public and visitation to the sites is not encouraged or
 promoted.

First Nations

Kokanee Glacier Provincial Park is situated within the traditional territory of two First Nation groups: the Okanagan and the Ktunaxa Kinbasket. Documentation of traditional use and archaeological sites associated with the historical First Nations use does not exist. Historically, much of the First Nations' uses of the area were concentrated in major lake corridors (e.g., Kootenay, Slocan and West Arm lakes) and accompanying valleys, often bypassing rugged mountains such as those found in the park. The Sinixt¹² and Ktunaxa peoples use of the area near the outlet of Kokanee Creek (located outside of the park) as a seasonal village for food gathering, hunting and fishing grounds is well documented. There are many place names within the park sourced from the Salishan or Ktunaxa dialect. The word "Kokanee" is an Anglicization of the Okanagan-Colville term that applies to the species of land-locked sockeye salmon. Other names such as Tanal, Nilsik, Kyawats, Klawala, Natanek, and Paupo have their origins in the Ktunaxa language.

Mining Values

In colonial times, the West Kootenay region was a focal point for mining exploration. The mining boom in nearby Sandon and the Slocan Mountains spread to land which is now within the present day park. Several of the mine developments took place on a large scale,

¹¹ The Friends of West Kootenay Parks

¹² Regarded as an extinct cultural group.

such as the Molly Gibson Mine and Scranton Mine and were in operation for over 50 years. Backcountry cabins currently located at the headwaters of the Silver Spray and Woodbury drainages are constructed on the footprint of former mining cabins. Many of the popular hiking trails within the park are also past miners' routes, once witness to the hauling of workers and materials on the backs of mules using an extensive network of skid trails.

Today, the Slocan Chief Cabin is the only intact wooden structure that remains from this era of pioneer mining. Originally built in 1896, the cabin evolved from being a shelter for miners to a ski and hiking destination for local residents following establishment of the park in 1922. The outer logs and interior walls of the cabin display a written testament (initials and engravings) to the hardy recreational enthusiasts who ventured into the park from the early part of the 20th century to the present. A restoration project¹³ has renovated the cabin into an interpretive feature within the park.

2.3 Recreation

Summary

The park's primary recreation role is to provide exceptional backcountry recreation opportunities in a wilderness setting.

- The park complements neighbouring protected areas by offering recreation opportunities in a pristine setting, while at the same time offering day-use activities and easily accessible overnight wilderness opportunities. When compared to Kokanee Glacier Provincial Park, other large protected areas such as Goat Range and Purcell Wilderness Conservancy provincial parks provide an experience which is more geographically remote and generally less accessible. (Figure 6).
- Although the park contains a high level of facility infrastructure compared to other adjacent wilderness parks, it has retained stunning natural features which appeal to local residents and tourists alike.
- Traditionally, the park has been an attractive destination for novice hikers and backpackers. Increasingly, more seasoned backcountry enthusiasts are utilizing the park in winter and summer.
- The park provides easy hiking access to sub-alpine and alpine areas that possess wildlife viewing opportunities and foster greater appreciation for the Selkirk Mountains rugged beauty.
- The park offers overnight camping and lodging choices, from cabin accommodations to tranquil campsite locations.
- With the park's close proximity to major tourist centres, day use is quickly becoming a preferred activity. Gibson Lake is a popular day-use area that offers excellent fishing and nature appreciation opportunities well suited for the elderly, families and school groups.
- The park provides helicopter access for backcountry skiing centred around the Kokanee Glacier Cabin. World class backcountry lodging offered at the Kokanee Glacier Cabin provides park visitors a wilderness experience while maintaining the

¹³ The Friends of West Kootenay Parks are conducting the renovation project under the direction of BC Parks.

- ecological integrity over the landscape by minimizing impact and using 'state of the art' building technology.
- Commercial interests have also recognized the business potential of the park by offering clients challenging outdoor recreation adventures.

Hiking, Camping and Backpacking

The popularity of the park as a hiking and backpacking destination has grown significantly within the last 20 years with over 18,000 park visitors annually¹⁴. Within the park there are over sixty-five kilometres of hiking trails, three backcountry cabins for overnight accommodation, a large day-use area offering a picnic shelter and a historic day-use interpretive cabin.

The four cabins are: (1) Woodbury Cabin (summer overnight use only), (2) Silver Spray Cabin (summer overnight use only), (3) Kokanee Glacier Cabin (winter overnight use only), and (4) Slocan Chief Cabin (summer day use only). The spacious (approximately 5000 ft²) Kokanee Glacier timber frame cabin sleeps up to twenty people and is equipped with all standard amenities (e.g., flush toilets, heat, electricity, showers). Prior booking of bed space is administered through the Alpine Club of Canada. Although fees are charged for cabins in the park, they are not considered commercial operations as they are operated on a not-for-profit basis.

Campsites are also located at both Woodbury and Silver Spray, often serving as an overflow for park visitors who have not booked the cabin(s) prior to arrival¹⁶. Two other designated campsites are located within the park. Kaslo Lake is one of the most popular sites located adjacent to the Kokanee Glacier Cabin facility, while Tanal Lake provides more rustic camping¹⁷. Two remote lakes in the park offer wilderness camping, namely Blue Grouse Basin and Crazy Jane Lake. Campfires are not permitted in the park.

A small number of park users enter isolated regions of the park for mountaineering or glacier travel. This use generally occurs between the Woodbury Glacier and the headwaters of the Silver Spray drainage. The Kokanee Glacier also receives visitors hiking from Smugglers Ridge. The northeast corner of the park, specifically the area surrounding Caribou Ridge and Mt. Chapman, offers opportunities for hiking. Much of this high elevation area is dotted with alpine lakes and was once part of the Kokanee Glacier Recreation Area¹⁸.

Private guiding companies offer a variety of day use hikes and multi-day traverses within the park. The Kokanee Glacier Cabin is quickly becoming a destination for guiding businesses because it offers clientele a wilderness experience with comfortable and spacious lodgings.

Day use is primarily focussed around the facilities at Gibson Lake (including a day use shelter). The Gibson Lake area has short, easy hiking trails which are suitable for young

¹⁴ Statistics from 1976 indicate approximately 2,600 visitors in that year (Background Report).

¹⁵ The Alpine Club of Canada operates the cabin year round under contract to BC Parks.

¹⁶ The Alpine Club of Canada operates the cabins at Woodbury and Silver Spray in summer only.

¹⁷ The Sapphire Lakes campsite is recommended for removal as part of this management plan.

¹⁸ See Background Report

children, families and the elderly. This area is popular with schools and other large groups. Sunset Lake offers fishing and picnicking opportunities and is easily accessible from the Woodbury Creek Forest Service Road.



Figure 5: Kokanee Glacier Cabin

Backcountry Skiing

Traditionally, the Slocan Chief Cabin served as a base for backcountry skiers seeking deep powder skiing. In 1989, BC Parks began a lottery system for the cabin to regulate the increasing demand for recreational skiing in the core area of the park. Four years later, a private company assumed the administration of the lottery and operated/maintained the cabin during the winter season (early December to late May)¹⁹. To provide a steady influx of visitors and to prevent access issues, the private company began to use a helicopter taxi service to the cabin. In the mid-1990s, a proposal by the company to expand winter skiing opportunities at the Silver Spray Cabin was accepted by BC Parks.

The impetus for the construction of the Kokanee Glacier Cabin in early 2000 was not only to replace the aging Slocan Chief Cabin, but also to increase avalanche awareness in the park and British Columbia. Tragedy struck skiers using the Silver Spray Cabin in 1998. A major avalanche occurred in steep terrain not far from the cabin, killing six people, including the cabin custodian. The Silver Spray Cabin was then closed for winter use following

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¹⁹ Kokanee Glacier Mountaineering Incorporated

recommendations of an independent consultant²⁰. The area surrounding the Slocan Chief Cabin has also witnessed fatalities from avalanches. To date, seven deaths have occurred within the core park area or near it, including the death of Michel Trudeau²¹ in 1998, and two deaths in 2003.

The Canadian Avalanche Association along with the Alpine Club of Canada (ACC) has continued to work with BC Parks to enhance the safety of visitors utilizing the cabin in winter and to promote avalanche education. No professional guides²² reside at the cabin. If guests choose, they are able to hire a guide beforehand through the ACC. Custodians at the cabin provide avalanche bulletins and safety tips but do not direct skiers where to go in terms of skiing.

Because of avalanche hazards, cabin guests are required to arrive and leave by air. Winter visitors attempting to access the cabin by ski or snowshoes from trailheads would need to cross significant avalanche terrain. Access to trailheads is also severely limited because roads leading to the park are not maintained in winter.

Mechanized Recreation

Helicopter activity is currently for tours and fishing in summer months and by helicopter taxi service offered in winter months to the Kokanee Glacier Cabin. Up until the mid 1980s, helicopters were permitted to land in the Lendrum Creek drainage, at Grey Eagle, Lendrum, and Nalmet lakes. Threats to the Grizzly population were the impetus for closing these areas to helicopter traffic.

Snowmobiles have been known to be infrequently used in the park (e.g., Keen Creek drainage up to Joker Lakes to access ski areas).

All-terrain vehicles and motorcycles are known to travel the Keen Creek corridor, on the old road²³. Access is primarily by local residents seeking fishing opportunities at either Joker Lakes or along Keen Creek.

Mountain biking has become popular in some drainages.

Hunting

Hunting is currently permitted within the park only between November 1st and November 30th for open season species identified in the *Wildlife Act*. Limited Entry Hunting (LEH) for Mountain Goats also occurs within the park²⁴. There is a LEH for spring Grizzly Bear hunting in MU 4-17 and 4-18 as well but because this does not coincide with the November period of open hunting, Grizzly Bears cannot be hunted in the park. Grizzly Bear hunting can occur immediately outside of the park in the rest of MU 4-17 and 4-18 between April 1st and June

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²⁰ Avalanche Risk Assessment: Silver Spray Hut and Associated Terrain (Stevens and Bay, 1998)

²¹ Son of the former Prime Minister Pierre Trudeau

²² A guide certified for winter travel by the Association of Canadian Mountain Guides

²³ The Kokanee Glacier Provincial Park and Recreation Area Master Plan (1990) states that the Keen Creek Road is open to mechanized conveyances.

²⁴ As indicated in LEH 2009/10 synopsis 4-17 (Zone A)

5th. American Black Bear hunting is permitted within the park only during the open season specified in the *Wildlife Act*.

Fishing

Helicopter sightseeing and fly-in fishing to specific locations have been ongoing for several years. Currently fly-in fishing at Crazy Jane Lake is permitted, but receives minimal visitation from the helicopter company that holds a permit in the park²⁵.

Commercial Recreation

Commercial tenures within the park are predominantly connected with commercial backcountry guiding, accommodation and visitor services. Currently, there are seven active park use permits. At present, the primary focus of commercial recreation within Kokanee Glacier Provincial Park is tied to the three backcountry cabins where overnight use is permitted (Kokanee Glacier, Silver Spray, and Woodbury). Winter use in the park, facilitated by the services offered at the Kokanee Glacier Cabin, is by far the greatest contributor to commercial recreation opportunities in the park.

The non-profit Alpine Club of Canada (ACC) operates the reservation and maintenance services at the Kokanee Glacier Cabin for twelve months of the year. In addition, the ACC operates and maintains backcountry facilities within the core area, and backcountry cabins at Woodbury and Silver Spray. The Alpine Club of Canada currently administers: the booking, minor maintenance and operation of these cabins; the camping at Kaslo Lake; and the dayuse services at Gibson Lake. A shift in the ACC's involvement in the park followed the completion of the Kokanee Glacier Cabin in 2003. The ACC takes care of and administers the cabin on a year round basis. Guests pay up to \$700/week (including helicopter) for lodgings and a helicopter shuttle to and from the cabin. The lottery system dictates when a party is allowed to use the cabin. Responsibility rests with park visitors to decide when to ski, and where. The winter use component of the ACC permit with BC Parks includes a helicopter taxi service. This is facilitated by one local helicopter company who also holds a park use permit to operate scenic flights within designated areas of the park (i.e., southwest corner of Kokanee Glacier proper and Caribou Ridge). The facility, along with the Woodbury and Silver Spray cabins are actively publicized as integral parts of their twenty-two ACC huts offered across Canada.

Guiding companies have also utilized Kokanee Glacier Provincial Park. Currently, four operators provide a range of day-hiking and overnight pursuits. The park is commonly offered as a feature trip in tandem with visits to other nearby protected areas²⁶. Within just a few years, the new lodge has also become a preferred destination for these operators.

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²⁵ High Terrain Helicopters

²⁶ Mountain Trek Fitness Retreat and Health Spa utilizes Pilot Bay Provincial Park, in addition to Kokanee Glacier Provincial Park, in week long trips throughout the West Kootenay

Recreational Access

The park is bounded on all sides by secondary highways (6, 3A, 31 and 31A). Past resource development surrounding the park has created a vast network of Forest Service Roads (FSRs) which intersect with the park boundary, and in some cases penetrate into the park. Motor vehicle access within the park boundaries is currently only permitted in the Keen Creek drainage. The popular Kokanee Creek Road is maintained by the Ministry of Transportation and Infrastructure in summer. It is frequented by school buses and low clearance vehicles. Easy road access, especially in the Gibson Lake corridor, allows for a high number of both day use and overnight visitors in the core area of the park.

Road access to backcountry areas is limited to the travel on several types of Forest Service Roads (Public Use, Wilderness, or Industrial) and gazetted secondary roads maintained by the Ministry of Transportation and Infrastructure (e.g., Keen Creek and Kokanee Creek). Depending on industrial activity adjacent to park boundaries, roads are subjected to variable maintenance standards. Many traditional road accesses to the park are no longer suitable for vehicular traffic. Coffee Creek FSR is closed²⁷ near its junction with Highway 31 and the upper reaches of the road have been deactivated by the BC Forest Service. Enterprise Creek FSR is also closed due to significant wash outs and the road no longer used for industrial access.

Roads or portions of roads managed by BC Parks (i.e., Scranton Mine Road and Keen Creek Road) are washed out in numerous locations and overgrown. These roads are no longer suitable, are not promoted as vehicle accessible and present some long-term threats to conservation values (i.e., altering hydrological cycles, fish habitat impacts). Road sections within the park have also been subjected to several washouts; one major failure is located 1 km south of Desmond Creek and another is closer to the terminus of the road at the Joker Mill site. These obstacles preclude any trucks or cars travelling the full extent of the road within the park. As such, BC Parks prohibited vehicular access in this area in 2000, but ATVs and motorcycles remain able to negotiate the first washout and travel to points beyond.

Interpretation/Education

The park provides a pristine venue to explore natural processes and features along with cultural history that is unique to this area. The park also represents several themes that could be explored in an outreach or research program. These include:

- natural heritage: regional landscapes, role of the park in the Central Columbia Mountains Ecosection, and conservation biology;
- cultural heritage: cultural heritage significance of specific sites (e.g., Slocan Chief Cabin), particularly focussing on the rich mining history of the park; and,
- wilderness recreation: opportunities available in the park, outdoor safety and avalanche awareness, wilderness and conservation ethics, and wildlife appreciation.

Visual Aesthetics

Outstanding views occur in a variety of locations in the park, the most notable being:

²⁷ Access regulated by Aquila Networks Canada

the base of Woodbury Glacier from the Woodbury Cabin; mountain scenery surrounding the Silver Spray Cabin; alpine tundra and water cascades associated with the Sapphire Lakes; imposing cliff faces of the Sawtooth Range; the Kokanee Glacier; and the Woodbury post-fire landscape.

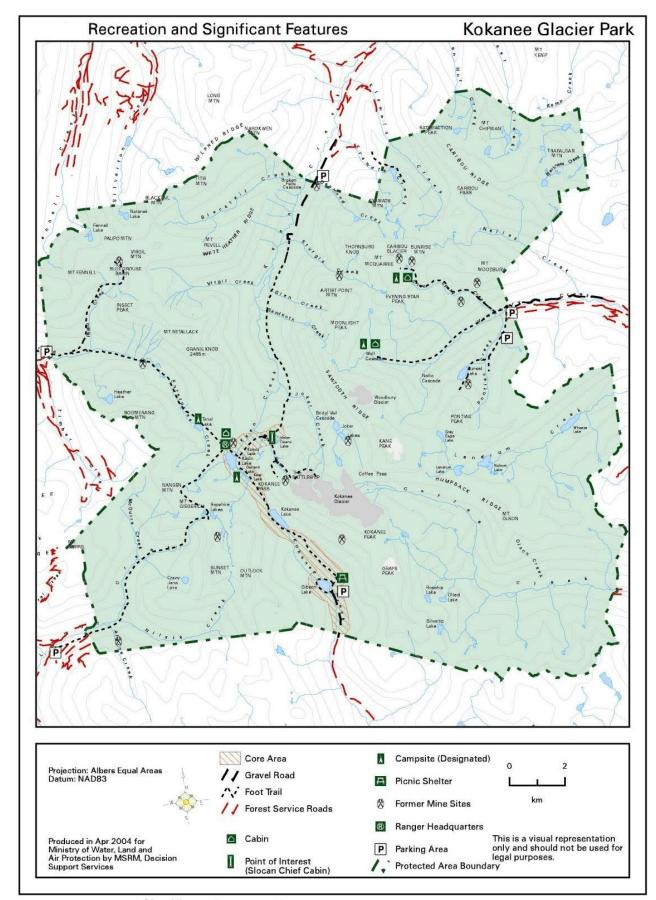


Figure 6: Recreation and Significant Features Map

3.0 Management Direction

The overall challenge for the management of this park will be to conserve and protect important natural and cultural values, while maintaining high quality backcountry recreation experiences. To ensure that the values are managed in perpetuity, BC Parks will apply an ecosystem-based management approach to the management of the park.

3.1 Vision

Kokanee Glacier Provincial Park will continue to be a premiere backcountry wilderness destination that has preserved and maintained its rich biodiversity and important wildlife habitat.

Management initiatives have reduced impacts from human activities by removing redundant facilities and restoring impacted areas. Use and enjoyment of the accommodation and information services at the Kokanee Glacier Cabin, along with the interpretive role of the Slocan Chief Cabin, have strengthened the public's appreciation for, and respect of, the rugged natural beauty and historical significance of Kokanee Glacier Provincial Park.

A strong emphasis towards ecosystem-based management in the park and continued protection of vital connectivity corridors in the Southern Selkirk Mountains has provided endangered and vulnerable wildlife species, such as Grizzly Bears, an opportunity to stabilize their populations. In some cases, species richness and diversity have increased within the park. Furthermore, with the efforts to reduce the "ecological footprint" in the park, fragile vegetation and plant communities are prolific and expanding.

The continuing pressures on the park's natural resources and wildlife values by outdoor enthusiasts, whether young or elderly, experienced or novice, guided or self-sufficient, in winter or summer, have been carefully mitigated by setting sustainable visitor use capacities. This has been accomplished by research and encouraging ecologically sustainable eco-tourism and by vigorously promoting backcountry wilderness ethics, practices and safety.

An era of greater understanding of First Nations' interests and greater sensitivity to their cultural and spiritual ties to the landscape has formed a holistic vision for management of the park.

3.2 Park Zoning

Introduction

In general terms, zones divide a park into logical units for management. Zoning applies uniform and consistent management objectives based on natural, cultural and recreational values, and existing and projected patterns of access and recreational use in relation to specific conservation goals. The individual zones reflect the intended land use, the degree of human use, level of management and development permitted.

Kokanee Glacier Provincial Park has been divided into four management zones (Figure 7). The allowance for regulated mechanized activity in some areas of the park and hunting (November only) within the entire park does not allow the Wilderness Conservation Zone to be used. The Appropriate Use Tables (Appendix A) define the activities, uses and facilities which are generally appropriate in the specific zones in the park.

Wilderness Recreation Zone

Zone Objective

To provide a remote, undisturbed natural landscape, and to provide backcountry recreation opportunities which are dependent on a pristine environment and where air access may be permitted to designated sites.

Zone Description

The Wilderness Recreation Zone covers 30,757 hectares of the park. This zone is applied to all park land outside of the core park area including all of the major creek drainages except Kokanee Creek. Backcountry cabin and camping facilities situated at the headwaters of Woodbury Creek and Silver Spray Creek are not included in this zone.

Zone Rationale

The zone intent is to place a high priority on conserving the natural environment while providing some level of backcountry use that is consistent with its wilderness atmosphere. Low levels of recreational use are permitted but evidence of human presence is confined to specific primitive facilities and sites. Travel within the zone is limited to non-mechanized forms with the exception of low frequency air access to designated sites.

The Wilderness Recreation Zone allows for the continuation of dispersed, traditional wilderness recreational activities and support facilities. Activities include hiking, backpacking, rock climbing, and un-assisted backcountry skiing. Infrequent (summer months only) helicopter usage in specific areas of the park (namely Caribou Ridge and Kokanee Glacier proper) and landing and departures at Crazy Jane Lake do not conflict with the intent of the Wilderness Recreation Zone. Areas of the park with high Grizzly Bear activity are also included in this zone to help reduce the potential for bear-human conflict through low levels of use and facility development.

Nature Recreation Zone

Zone Objective

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

Zone Description

The Nature Recreation Zone covers 1,115 hectares of the park. The zone is applied to the trail corridor that stretches from Gibson Lake to Kaslo Lake, incorporating the entire facility infrastructure at Kaslo Lake and immediate area (campsite and the Kokanee Glacier Cabin). The eastern fringe of the zone incorporates Helen Deane Lake and the area surrounding the Slocan Chief Cabin. Also included in this zone are backcountry cabins/campsites located at

Woodbury and Silver Spray and the road corridor within the Keen Creek drainage (between Desmond and Sturgis Creek).

Zone Rationale

The Nature Recreation Zone encompasses areas which provide ease of access and have higher use levels than what is normally associated with a wilderness experience. The zone designation is intended to ensure that the recreational activities and facilities do not dominate the natural setting. The designation also reflects the level and types of use.

Intensive Recreation Zone

Zone Objective

The objective of the Intensive Recreation Zone is to provide a variety of readily accessible, facility orientated outdoor recreation opportunities.

Zone Description

The Intensive Recreation Zone occupies 148 hectares of the park. It is centred on the trailhead parking and day-use facilities at Gibson Lake.

Zone Rationale

The Intensive Recreation Zone encompasses an area which is intensely developed for user convenience. Natural resources are kept in a primarily natural state but human presence may be readily visible through the existence of recreation facilities and people using this zone. Facilities are designed for efficient operation while remaining unobtrusive to the park visitor.

Special Feature Zone

Zone Objective

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

Zone Description

The Special Feature Zone covers 15 hectares of the park. It applies specifically to the Slocan Chief Cabin and immediate surroundings.

Zone Rationale

This zone is intended to protect special natural and cultural features which are vulnerable to impact by public uses. The zoning precludes camping and other specific forms of recreational development. Management emphasizes a high level of protection and ongoing monitoring, and limits facilities to those used for interpretation. There is no Appropriate Use Table for this zone. Additional sensitive and special features sites will be managed under this zoning regime as they are identified.

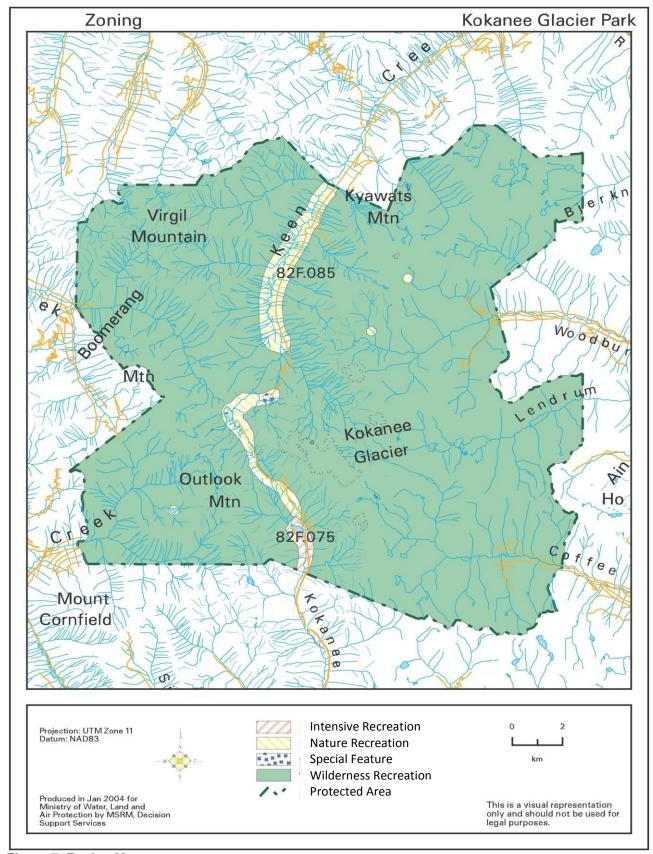


Figure 7: Zoning Map

3.3 Biological Diversity and Natural Environment

Key Management Issues/Interests

Vegetation

Provincially listed endangered and vulnerable plant species inventories are lacking within the park. Since there are a number of endangered and vulnerable species found within adjacent areas, these species are likely to be confirmed in the park once vegetation inventories are completed.

Invasive weed species have yet to be confirmed within the park, however, spotted knapweed is known to occur outside of the park boundary along Forest Service Roads. A weed inventory of West Kootenay parks in 2002²⁸ cited nearby Kokanee Creek Provincial Park as having the highest number of weed species surveyed in the West Kootenay.

Most old roads associated with mining in the park have been converted to trails or have become overgrown. An exception is the Scranton Mine Road and former mine site, which requires rehabilitation to ensure that the long-term environmental impacts on nearby Pontiac Creek are lessened. Tailings and outcast from the old mine sites and their impacts on vegetation have not been adequately studied.

Campsites located at Kaslo Lake, Sapphire Lakes and the immediate area surrounding the Kokanee Glacier Cabin are all being impacted by recreation use. The Kaslo Lake campsite has progressively become saturated with a network of undesignated social trails linking individual sites. Vegetation dieback and exposed mineral soil are evident in many locations. St. Johns-wort, a blue-listed plant species, has been reported on the shore of Kaslo Lake. Prior to the construction of the Kokanee Glacier Cabin, an Environmental Impact Assessment (EIA) was completed. The EIA, focussing on vegetation, detailed the need to lessen any visitor use impacts around Kaslo Lake²⁹. Recommendations for signage and directional trails leading to and from the new cabin were detailed within the EIA and were implemented in 2003.

A 1,500 hectare wildfire in the Woodbury drainage (2003) has created an opportunity to study the long-term effects of high intensity fire on the park. The research potential is significant with respect to topics such as changing forest health, natural regeneration and ecosystem dynamics within the 1,500 hectare wildfire.

The Ministry of Forests and Range report indicates that there are mountain pine beetles in some lodgepole pine around the Silver Spray cabin (up Woodbury Creek). Forest cover data indicates lodgepole pine in the Keen Creek drainage also needs to be assessed. There is whitebark pine scattered throughout high elevations in the park that are also at risk from mountain pine beetles.

²⁹ Kokanee Glacier Provincial Park Alpine Cabin: Environmental Impact Assessment for Vegetation and Fisheries Values (2001)

²⁸ Invasive Non-Native Plants in West Kootenay Parks, J. Craig et. al (2002).

Water

The steep valleys in the park are the sites of numerous mass wasting events. One of the positive impacts from slides, avalanches, and wildfires is that there is constant renewing of foraging vegetation for wildlife. However, these events can also cause severe water quality issues such as increased turbidity and blockages of stream flow.

The portions of the Woodbury drainage affected by wildfire in 2003 should be monitored for water quality issues, especially in periods of heavy precipitation or in freshet. Downstream effects, such as an increase in turbidity and total dissolved solids, may have negative impacts on fish habitat and water quality.

The park contains six glaciers. All of the glaciers are slowly receding and the influences of climate change may have an impact on their future³⁰.

Fish

The eastern brook trout is an introduced recreational sport fish. It is known to force indigenous fishes from their native habitat and to alter their genetic integrity.

Prior to construction of the Kokanee Glacier Cabin facility, an Environmental Impact Assessment (EIA) was conducted. The EIA outlined potential angling pressure to the fishery at Kaslo Lake and the upper reaches of Keen Creek³¹. The study reiterated the lack of any current fish data such as a creel census. Detailed in the report was the need to continually reassess the impacts on the recreational fishery at Kaslo Lake as interest by anglers increases.

Wildlife

There is a lack of adequate study in the park with respect to the cumulative effects of recreation use and facility development on endangered and vulnerable wildlife species. There is also a shortage of park wildlife inventories and baseline data.

Recent reduction in the maintenance of forestry roads leading to the park boundary has reduced access to the park. This has caused a funnelling of visitors into the core area³² of the park. Consequently, some species, including Grizzly Bears, may be driven into peripheral areas of the park³³.

³⁰ Based on physical and photo observations only. No recent studies of glaciers in the park have been conducted. Studies performed in the 1960s were unavailable for review.

³¹ Kokanee Glacier Provincial Park Alpine Cabin: Environmental Impact Assessment for Vegetation and Fisheries Values (2001)

³² See extent of core area on Figure 4

³³ This is not scientifically proven but has been outlined in the BC Parks Conservation Risk Assessment (2001).

From a connectivity-habitat perspective, the high amount of park facility infrastructure located in the Kaslo Lake area needs to be monitored to determine its impact on Grizzly Bear movement³⁴.

Within the last 19 years, there have been 26 known bear-human encounters in the park where a person had to take action to avoid the bear. Eighty-one percent of the events involved Grizzly Bears (either sub-adults or sows). The implementation of strategies such as closing some park areas to public use (removal of facilities, seasonal closures) and educating park visitors has contributed to the absence of any human injury from bear-human encounters.

The facility infrastructure in the park and subsequently the recreation opportunities offered, particularly in winter, results in a reliance on helicopters. Helicopter use in select portions of the park must be monitored for its impact on wildlife, specifically Mountain Goats, Wolverines and Grizzly Bears. In the past, heli-fishing was moved from Grey Eagle Lake because of the potential for disturbance to Grizzly Bears using the area as a major feeding site.

Objectives and Strategies for Biological Diversity and Natural Environment

Objective Strategies Vegetation Complete a comprehensive vegetation inventory to locate, identify, and To protect endangered and map endangered and vulnerable plant communities in areas that could vulnerable plant species, potentially be impacted by recreation. and indigenous plant Determine, through on-site inventories, the existence of vulnerable communities (blue-listed) plant communities identified in the Predictive Ecosystem To restore vegetation in Mapping (PEM). areas damaged from Rehabilitate the Scranton Mine Road and former mine site. recreational impact and Develop a trail system plan (hardened pathways, boardwalks, and return the sites to a natural signage) directing travel to and from the Kokanee Glacier Cabin. condition Discourage use of undeveloped sections of the Kaslo Lake foreshore To maintain old growth through signage and natural barriers. forest ecosystems and Seek partners to realize the research potential of the post-fire processes landscape in the Woodbury drainage. To support natural Conduct aerial survey and ground assessment of suspected mountain regeneration of burned pine beetle areas for inclusion in a vegetation management plan. areas Prepare a vegetation management plan for the suspected mountain pine beetle areas which will identify management strategies (excluding commercial logging) for specific issues such as insect infestation, disease, invasive plant invasion and blowdown. BC Parks will coordinate with Ministry of Forests to assess any wildfires and prepare a fire management plan for the park. Fire management will consider fire history, natural fire regimes, effects of suppression, historical use of fire by humans, concerns of other agencies and values in need of protection. Use of fire retardants and heavy excavating machinery within the park should be discouraged, unless public safety

³⁴ Where animal movements are squeezed into relatively narrow, confined passageways, often surrounded by steep walled, often impassable terrain a "pinch point" may be created for grizzly bear movement (from McCrory 2000).

or facilities are at risk. Wildfire may be allowed to run its natural course
as long as it meets landscape biodiversity objectives, and ensures
visitors safety and adjacent commercial forests and park facilities are
not at risk.

- Retain wildlife trees except where there is a hazard to visitors or facilities. Where a potential hazard is identified, a Wildlife/Danger Tree Assessment will be conducted to determine the highest value to wildlife and appropriate remedial action.
- Encourage the inventory, monitor, and control the presence of nonnative plants along access corridors and recreational use areas leading to the park.
- Develop an inventory and control strategy for invasive plants occurring within the park.
- Remove invasive plants, as required, using the most effective lowimpact method available.

Ecosystem Based Management

- To preserve unimpaired representative ecosystems, ecological values and natural ecological processes within the park while working with adjacent land managers to maintain the integrity of sensitive values in support of the park
- Increase information and understanding of ecosystem values and processes in partnership with other agencies and jurisdictions through the sharing of inventory and research³⁵.
- Apply practices and principles, where appropriate, of the BC Parks ecosystem-based management approach as they are developed.
- Work co-operatively with other agencies and jurisdictions to ensure wildlife (e.g., Grizzly Bear, Mountain Goat and Wolverine) habitat that exists external to the park is maintained, including effective connectivity throughout the region's protected areas and Special Resource Management Zones (SRMZs).
- Ground truth through field checking existing Predictive Ecosystem Mapping (PEM)³⁶ for the park.
- Monitor and provide input into Landscape Unit Planning, Forest Development Plans, mineral exploration projects, and commercial recreation proposals for lands adjacent to the park.
- Coordinate the development of communication and educational resources with other agencies and private groups to enhance the overall effectiveness of activities that support ecosystem integrity.
- Provide input through provincial review processes for proposed major developments that may impact the park's ecosystem values.
- Work with the Ministry of Forests and Range to retain mature and oldgrowth stands, riparian, wetlands, flora, fauna, and other values adjacent to the park in support of the KBLUP-IS Conservation Objectives and Strategies, and the RMZ objectives of the Higher Level Plan Order.
- Limit habitat fragmentation in the park when considering facilities/uses.
- Develop an ecosystem management³⁷ strategy that incorporates principles of ecological integrity including the major ecosystem components of vegetation, fish and wildlife and natural processes such as fire, insects, and diseases.

Water

• Establish long-term monitoring of Kaslo Lake water levels, and water

³⁵ Although BC Parks liaises with other agencies concerning activities adjacent to the park the mandated responsibility is to manage issues within the park.

³⁶ PEM completed in 2003.

³⁷ Ecosystem management provides a conceptual approach for the protection of park ecosystems. It involves taking a more global view of the natural environment and ensuring that land use decisions take into consideration the complex nature of ecosystems. It is also important to keep in mind that park management will have effects on surrounding lands and their management (Parks Canada 2004).

- To protect and maintain the natural quality and quantity of water in the park
- quality in the upper reaches of Keen Creek. Engage in remedial work if necessary to ensure minimization of any adverse effects from operations of the Kokanee Glacier Cabin.
- Manage recreational use to ensure proper disposal of human waste. •
- Ensure sanitary facilities are properly designed and located.
- Any further water impoundment, diversions, or new domestic use projects must be in accordance with the Park Act.

Fish

- To maintain/restore natural fish habitat and conserve all natural fish populations
- Develop and implement a fish inventory and management strategy with other agencies (including forest licensees) and First Nations to address needs both inside and adjacent to the park.
- Ensure adequate water supply and quality for endangered and other indigenous fish species.
- Conduct inventories of fish populations as required.
- Implement a creel census of Kaslo Lake and outflow tarns associated with the upper reaches of Keen Creek.

Wildlife

- To sustain the natural diversity of wildlife species and habitat, with priority given to rare, endangered or threatened species
- Develop a wildlife inventory with a focus on high priority species identified through the Conservation Framework.
- Expand the above inventory to include a comprehensive two year Grizzly Bear movement/habitat suitability project encompassing the entire park (using Geographic Information Systems to detail habitats and connectivity).
- Increase the knowledge and understanding of wildlife and their habitat requirements both inside and outside the park.
- Encourage research and monitoring aimed at better understanding the cumulative effects of recreational use (e.g., helicopters and hiker traffic) on species such as Mountain Goats, Wolverine, and Grizzly Bears.
- Manage the park to maintain functioning ecosystems while accommodating appropriate recreation opportunities (e.g., re-examine hunting regulations on an annual basis, develop a recreational carrying capacity, educate visitors and use trail closures if needed).
- Place greater emphasis on using a science-informed approach with regards to managing wildlife.
- Develop a co-ordinated long-term approach to wildlife management with other government agencies, including the Ministry of Forests and Range, the Ministry of Agriculture and Lands, and First Nations, with an emphasis on species at risk, including: maintaining ecosystem representation, conservation and use, management of biodiversity; access, connectivity and range management; and co-ordinating wildlife management objectives.
- Encourage the assistance of volunteers and others (e.g., bird watching clubs, anglers, heli-taxi and tour operators, etc.) to collect wildlife data with BC Parks Observation Cards.
- Manage bear-human conflict in accordance with the BC Parks Bear-People Conflict Prevention Plan.

Research

- To encourage appropriate research relating to the natural and cultural history of the park
- To encourage multi-agency cooperation in protected areas scientific research and education

To promote education and

- Encourage colleges, universities, other agencies, and corporate sponsors to establish funding for and to undertake appropriate research studies.
- Limit scientific research that involves collecting specimens.
- Ensure that any material that is collected for scientific research will remain the property of the Province of British Columbia, regardless of where it is stored.

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	conservation through
	increasing public understanding of the
	natural and cultural values
	of the park
•	To position the park as a comparative benchmark
	for monitoring ecological
	change in the West
	Kootenay

3.4 Cultural Heritage

Key Management Issues/Interests

Documentation of traditional use and archaeological sites associated with the historical First Nations use does not exist.

Today, the Slocan Chief Cabin is the only intact wooden structure that remains from the era of pioneer mining. A restoration project³⁸ is renovating the cabin into a special interpretive feature within the park.

Objectives and Strategies for Cultural Heritage Values

Objective	Strategies	
 To gain a better understanding of the preand post-contact history associated with the park To locate important First Nations cultural heritage sites and ensure their protection To work with First Nations and other government agencies to ensure First Nation access to important cultural heritage sites (if located) Continue to preserve the past remnants of mining activity within the park and promote the historical significance of the Slocan Chief Cabin 	 Protect 'in situ' important features and traditional use sites if discovered within the park. Such sites will not be identified on any public park literature in order to protect them from damage. Utilize the BC Archaeological Assessment Guidelines whenever there is potential for proposed development activities or facilities to disturb traditional use sites. Work with First Nations and the Archaeology Planning and Assessment Section to manage the archaeological and heritage resources in the park including adherence to research standards and protocols. Ensure that research relating to the role of First Nations in the park involves First Nations peoples and the Archaeology Planning and Assessment Section (research activities will require a Park Use Permit). Research, document, and interpret the structural remains associated with the prominent mine sites within the park (e.g., Molly Gibson, Joker, and Scranton). 	

³⁸ The Friends of West Kootenay Parks are conducting the renovation project under the direction of BC Parks.

3.5 Recreation

Key Management Issues/Interests

Recreational Activities

Balancing growing recreational demands with the maintenance of ecological integrity will be the greatest challenge to park managers. The accommodation services offered at the newly constructed Kokanee Glacier Cabin and the overall reputation of the park as a year-round destination have emphasized the need to manage the park for both wilderness recreation and conservation values.

Winter recreation safety is a real issue in the park. Park visitors need to be properly informed of the need to be self-sufficient and the need to have a high level of avalanche/winter travel safety awareness. Because of extreme avalanche dangers in the Woodbury and Silver Spray areas, the cabin facilities at these locations are closed to commercial operations for the winter.

The KBLUP-IS recommended a tourism management strategy that considered the opportunities for tourism subject to the prime goal of protecting park values. Demand for cabin accommodations in the park far exceeds supply. It is important for BC Parks to balance public and commercial recreation use.

Heli-taxi service to the cabin is the limit of helicopter use in the park for commercial recreation in the winter. Increased use of the cabin in winter is highly dependent on the level of use the facility infrastructure can sustain.

Due to the high visitation during hunting seasons, there are public safety concerns associated with hunting in the core recreational areas.

Mechanized use is growing in popularity and its impact on park values is the subject of debate.

Recreational Access

The park was once one of the most easily accessible wilderness backcountry parks within the Kootenay Region. Over the last few years however, as the need for industrial access has grown less and less, some of the access routes have significantly changed.

Most of the Keen Creek Road is managed by the Ministry of Transportation and Infrastructure who indicate that given low use and significant cost to re-open the road that it will remain closed.

Road sections within the park have also been subjected to several washouts; one major failure is located 1 km south of Desmond Creek and another is closer to the terminus of the road at the Joker Mill site.

³⁹ Winter activities are restricted to areas situated within close proximity of the Kokanee Glacier Cabin.

Enterprise Creek, Lemon Creek and Woodbury Creek FSRs all have industrial road use permits on them. These roads are the responsibility of a designated forest licensee operating in the area. Should forestry operations cease, the licensee has no legal obligation to provide maintenance on the road. Often if the industrial road use permit ends, the access is downgraded to a Wilderness Forest Service Road. Access with this designation is not guaranteed and maintenance is focussed on mitigating environmental problems, not keeping the road open for vehicles. Demand to keep this area open for this activity is high. Likewise, the Woodbury Road receives considerable vehicle traffic by those wishing to travel to the Silver Spray and Woodbury cabins.

Undoubtedly, the closure or reduced maintenance of FSRs may channel a greater number of park visitors to maintained roads (e.g., Kokanee Creek Road). Other access to the park boundary is provided by short trails originating from Forest Service Roads (i.e., Lendrum, Fennel, and Silverton) ending several kilometres from the park boundary. Use of these trails will be affected by the use and maintenance of roads leading to trailheads as described in the previous section. These significant changes to access are expected to help further protect species diversity and wildlife habitat. Species such as Grizzly Bear that are affected by vehicle access are likely to benefit from these changes but an increase in use of remaining accesses into the park is anticipated. Many of the trailheads are going to be much farther away and require at least an extra days hiking or in the case of Keen Creek mountain biking on Keen Creek Road to the trailhead may be possible. Over time some access trails may no longer be used and they may be abandoned.

Objectives and Strategies for Recreation

Objective	Strategies		
Hiking, Camping and Backpacking To provide backcountry lodgings at Kaslo Lake (Kokanee Glacier Cabin), Silver Spray and Woodbury while maintaining strict controls on accommodation capacity To provide a variety of wilderness dependent hiking and camping opportunities To continue to provide easily accessible day-use activities at Gibson Lake To assess and monitor the impact of backcountry visitors on natural and cultural values	 Maintain status quo of available bed space/overnight visitor capacity associated with backcountry cabins⁴⁰. Limit commercial use of all cabins to self-service and prohibit the offering of meals, housekeeping, and provision of bedding services. Remove Sapphire Lake campsites but continue to promote use at other designated campsites. Close, relocate or improve trails as required if bear and visitor safety problems arise. To assess and mitigate impacts, use BC Parks' Impact Assessment processes prior to approving developments. Assess impacts and monitor backcountry visitation to protect natural values, in accordance with the Backcountry Recreation Impact Monitoring (BRIM) Policies. Educate visitors about minimum impact camping at all sites in the park to avoid site degradation and minimize bear-human conflicts. Continue education and enforcement of regulations pertaining to "no dogs" and "no campfires". Develop a carrying capacity model for the core area of park. 		

⁴⁰ See Background Report for available bed space in respective cabins

Backcountry Skiing

- To continue to provide winter backcountry recreation opportunities associated with the Kokanee Glacier Cabin
- Continue to liaise with the Canadian Avalanche Association with respect to providing up-to-date avalanche bulletins and education.
- Ensure trailhead access remains closed and that signage which warns visitors of the potential avalanche danger is in place and maintained.

Mechanized Activities

- To maintain wilderness recreational values free from mechanized recreation impacts
- Prohibit all forms of mechanized recreation in all areas of the park except as provided for in this management plan.
- Continue allowing bicycle use of Keen Creek road surface but nowhere else in the park.
- Through inter-agency planning processes, encourage mechanized recreation outside the park in areas unlikely to impact wildlife connectivity.
- Additional related actions can be found in the Access Section (below).

Hunting

- To allow wilderness hunting opportunities to continue subject to conservation and public safety objectives
- To protect public safety, maintain the current regulation which only allows for the discharge of firearms in the park from Nov. 1 Nov. 30 during a lawful game hunting season.
- Assess, monitor, and regulate hunting in cooperation with First Nations, hunters, and special interest groups to ensure conservation objectives are met.
- Obtain updated wildlife data in order to manage for sustainable wildlife populations and appropriate hunting levels.
- Review hunting regulations annually with the Environmental Stewardship Division with emphasis on endangered and vulnerable species, Mountain Goats, and Grizzly Bears.
- Review any proposed changes with First Nations and recreational hunters.

Commercial Recreation

- To plan for ecologically sustainable tourism opportunities in support of adjacent communities
- To continue commercial guiding and seasonal helicopter services within acceptable impact limits
- To encourage stewardship of park values by all commercial operators and users
- To manage pre-existing tenures in keeping with the conservation objectives of the park

- Limit new commercial recreation services to low impact proposals that do not require new infrastructure to be located in the park.
- Encourage tourism infrastructure to be located in nearby communities.
- Establish a carrying capacity model for the core area of the park in consultation with government agencies, the community, First Nations, and stakeholders.
- Work with existing tenure holders to collect data and to develop a
 stewardship program, develop improved operational procedures,
 practices, or other management options such as voluntary measures
 to avoid impacts, and a code of conduct consistent with the objectives
 of the management plan, with specific concerns for the impact on
 species such as Grizzly Bears and Mountain Goats. Quotas may be set
 for commercial operators and a limit set on public visitation when
 monitoring shows the carry capacity is close to being exceeded.
- Monitor the visitation data provided by the private guiding companies as part of their park use permits.
- Monitor and assess, with associated agencies and operators, any impacts to natural and/or visual values from helicopter access or over-flights, and amend or cancel park use permits if required.
- Maintain existing helicopter access permits while ensuring strict compliance with flight guidelines.
- Continue to identify and report
- Continue park use permit with the Alpine Club of Canada while ensuring maintenance and operations agreements remain consistent with BC Parks standards.

Access

- To work with appropriate agencies to ensure road access to key trailheads remains open
- To encourage and restore areas not needed for public access to a natural condition to sustain and/or enhance wilderness values
- Coordinate with the Ministry of Forests and Range and the Ministry of Transportation and Infrastructure with respect to the management of roads, trails, and trailheads that provide access to the park including road maintenance, enhancement and reclamation.
- Place emphasis on maintaining the Kokanee Creek Road and Woodbury Road to a high standard to allow easy and safe access for park visitors and to accommodate increase use if required.
- Prohibit all forms of motorized access into the park except for management purposes and as provided for in this management plan.
- Allow the use of Keen Creek road for mountain biking access to the Joker Creek trailhead.
- Explore potential new access points into the park in concert with changes in industrial access surrounding the park.

Visual

- To minimize human-caused changes to the views in and out of the park so that the visual qualities and wilderness qualities are protected
- To design and situate park facilities in a manner that preserves the visual integrity of the park
- Locate and design all park facilities in harmony with the visual setting and in accordance with park zoning objectives.
- Encourage the Ministry of Forests and Range and forest licensees to protect visual qualities outside the park boundary in accordance with the Forest and Range Practices Act ⁴¹ of British Columbia.

3.6 Communications

Key Management Issues/Interests

Marketing and Promotion

Promotion strategies must be consistent with the management intent of the park. Marketing programs promoting sustainability and environmental consciousness will ensure the park resources are appreciated, understood, and respected.

In addition to BC Parks' marketing efforts, other tourism and recreational interests and tourism agencies promote parks. Co-ordination is needed to ensure that promotional information is consistent, accurate and in keeping with park objectives.

Pre-trip Planning

Awareness and pre-trip planning information can help to set expectations, enhance the recreational experience, and influence attitudes and behaviours. Despite facility development in the core area, the park contains many natural hazards in all seasons. In summer, visitors to the core area must be prepared for chance encounters with wildlife. Interactions between park visitors and wildlife can result in harm to both the visitor and wildlife. Backpackers should be aware of appropriate bear avoidance behaviour and be able to identify prime Grizzly and American Black Bear habitat to reduce the chances of an

⁴¹ The Act and regulations take effect Jan. 31, 2004. Any activities already approved under the existing Forest Practices Code may continue until Dec. 31, 2005. After that, all planning and on-the-ground work must comply with the Forest and Range Practices Act and regulations.

encounter. In winter, backcountry skiers must be independent, self-sufficient and proficient in avalanche safety.

Because of the variable climate, rugged nature, and wilderness qualities of this park, visitors are urged to be especially vigilant in their pre-trip preparations. They are encouraged to seek out weather reports, avalanche bulletins and maps and to provide their trip itinerary to relatives or friends with departure/return times. Communications from within the park are limited to satellite phones and rescue services are not readily available.

Natural and Cultural Heritage Outreach

The park provides a pristine venue to explore natural processes and features along with cultural history that is unique to this area.

Objectives and Strategies for Communications

Objective	Strategies		
 Marketing and Promotion To ensure that promotion and marketing are appropriate for the park To portray the park's role in conserving important species, habitats and biodiversity and highlighting the park's provincial ecosection and biogeoclimatic representation To provide accurate and appropriate information on backcountry recreational opportunities 	 Work with commercial operators, tourism associations and the media to portray the park in an appropriate manner and create expectations appropriate to the park. Create an information strategy that will focus on maintaining current use levels in the core area of the park. Continue to use park information shelters at designated access points to provide important safety information and wilderness ethics to visitors. Research and communicate the latest information on low impact use practices to visitors. 		
 Pre-Trip Planning To provide consistent, current and accurate information to visitors To clearly indicate to visitors and other tourism outlets that although the park is easily accessible and offers day use opportunities, it remains a wilderness area, and that pretrip planning is required before visiting To enhance backcountry visitors' awareness of the park's natural features and cultural setting, wilderness etiquette, and techniques for respecting bear habitat and avoiding bear encounters To clearly indicate that winter activities in the park dictate that 	 Work with local communities and tourism associations to provide pre-trip planning information. Ensure any publications on Kokanee Glacier Provincial Park are current and accurate. Maintain the natural character of the park by limiting any signage to where it is necessary for visitor safety or the protection of sensitive sites. Prepare information for backcountry visitors which describes the natural and cultural features of the park, wilderness recreation etiquette and safety, low impact camping, wildlife viewing techniques, and ways of avoiding bear encounters. The focus will be on pre-trip planning as much as possible. Develop, with the Alpine Club of Canada, a backcountry skiing avalanche awareness and avoidance strategy. Encourage the Alpine Club of Canada to assume a lead role in pre-trip planning for park visitors year round. 		

park visitors are adept at travelling in avalanche terrain and are self-sufficient in terms of rescue	
 Natural and Cultural Heritage To provide information about the natural, recreational and cultural features and values in the park to park users in order to foster and maintain appreciation for and understanding of its significance and the importance of protecting these features and values To interpret the cultural heritage of the park for the public's appreciation and education 	 Involve stakeholder groups in management initiatives that are focused on preserving and interpreting the historic features of the park (e.g., Friends of West Kootenay Parks). Provide outreach activities and information on the themes described above; make it available on the BC Parks website and to local communities, groups, and schools.

3.7 Management Services

Objectives and Strategies for Management Services

Objective	Strategies		
To carry out management responsibilities in accordance with the Park Act, Park, Conservancy and Recreation Area Regulation and the guidelines provided in this management plan To develop a close working relationship with other agencies	 Liaise on a regular basis with groups representing park users and commercial operators to ensure that management of the park benefits from their knowledge and input. Consult with First Nations on the strategies that affect their traditional use. Continue to provide seasonal ranger patrols. Use volunteers where possible to enhance park management. Continue to prepare regional Annual Management Plans to determine the annual management requirements of the park including the management strategies to be implemented. Consult with other sections of the Ministry of Environment on the management of ecosystems and conservation issues. 		

4.0 Plan Implementation

The plan implementation section provides information on the strategies that BC Parks will implement as funding and resources permit.

4.1 High Priority Strategies

- Discourage use of undeveloped sections of the Kaslo Lake foreshore through signage and natural barriers.
- Inventory, monitor, and control the presence of non-native plants along access corridors and recreational use areas leading to the park.
- Develop an inventory and control strategy for non-native plants occurring within the park.
- Remove non-native plants as required using the most effective low-impact method available.
- Implement a creel census of Kaslo Lake and outflow tarns associated with the upper reaches of Keen Creek.
- Develop a wildlife inventory with a focus on high priority species identified through the Conservation Framework.
- Expand above inventory to include a comprehensive two year Grizzly Bear movement/habitat suitability project encompassing the entire park (use of Geographic Information Systems to detail habitats and connectivity).
- Develop a carrying capacity model for core area of park in consultation with government agencies, the community, First Nations, and stakeholders.
- Develop with the Alpine Club of Canada avalanche awareness and avoidance strategy for backcountry skiers.

4.2 Task or Project Strategies

- Complete a comprehensive vegetation inventory to locate, identify, and map plant communities, endangered and vulnerable threatened plant communities in areas that could potentially be impacted by recreation.
- Determine through on-site inventories the existence of vulnerable (blue-listed) plant communities identified in Predictive Ecosystem Mapping.
- Rehabilitate the Scranton Mine Road and former mine site.
- Develop a trail system plan (hardened pathways, boardwalks, and signage) directing travel to and from the Kokanee Glacier Cabin.
- Seek partners to realize the research potential of the post-fire landscape in the Woodbury drainage.
- Conduct aerial survey and ground assessment of suspected Mountain Pine Beetle areas for inclusion in a vegetation management plan.
- Prepare a vegetation management plan that will identify management strategies (excluding commercial logging) for specific issues such as insect infestation, disease, non-native plant invasion and lowdown.

- BC Parks will coordinate with Ministry of Forests to assess any wildfires and prepare a fire management plan for the park. Fire management will consider fire history, natural fire regimes, effects of suppression, historical use of fire by humans, concerns of other agencies and values in need of protection. Use of fire retardants and heavy excavating machinery within the park should be discouraged, unless public safety or facilities are at risk. Wildfire may be allowed to run its natural course as long as it meets landscape biodiversity objectives, and ensures visitors safety and adjacent commercial forests and park facilities are not at risk.
- Establish long-term monitoring of Kaslo Lake water levels and water quality in upper reaches of Keen Creek to ensure minimization of any adverse effects from operations of the Kokanee Glacier Cabin. Engage in remedial work if necessary.
- Develop and implement a fish inventory and management strategy with other agencies (including forest licensees) and First Nations to address needs both inside and adjacent to the park.
- Encourage research and monitoring aimed at better understanding the cumulative effects of recreational use (i.e. helicopters and hiker traffic) on species such as Mountain Goats, Wolverine, and Grizzly Bears.
- Develop a co-ordinated long-term approach to wildlife management with other government agencies, including the Ministry of Forests and Range, and the Ministry of Agriculture and Lands, as well as First Nations, with emphasis on species at risk, including: maintaining ecosystem representation, conservation and use, management of biodiversity; access, connectivity and range management; and co-ordinating wildlife management objectives.
- Research, document, and interpret the structural remains associated with the prominent mine sites within the park (i.e., Molly Gibson, Joker, and Scranton).
- Educate visitors about minimum impact camping (backcountry wilderness ethics) at all sites in the park to avoid site degradation and minimize bear-human encounters.
- Remove Sapphire Lake campsites but continue to promote use at other designated campsites.
- Continue allowing bicycle use of Keen Creek road surface but nowhere else in the park.
- Prohibit all forms of mechanized recreation in all areas of the park except as provided for in this management plan.
- Work with existing tenure holders to collect data and to develop a stewardship program and a code of conduct consistent with the objectives of the management plan.
- Create an information strategy that will focus on maintaining current use levels in the core area of the park.
- Prepare information for backcountry visitors which describes the natural and cultural
 features of the park, wilderness recreation etiquette and safety, low impact camping,
 wildlife viewing techniques, and ways of avoiding bear encounters. The focus will be on
 pre-trip planning as much as possible to encourage responsible visitor behaviour and
 stewardship of park values. Provide outreach activities and information on the themes
 described above; make it available on the BC Parks website and to local communities,
 groups, and schools.

- Ground truth through field checking existing Predictive Ecosystem Mapping (PEM)⁴² for the park.
- Develop an ecosystem management⁴³ strategy that incorporates principles of ecological integrity including the major ecosystem components of vegetation, fish and wildlife and natural processes such as fire, insects, and diseases.

4.3 Ongoing or Monitoring Strategies

- Continue park use permit with the ACC while ensuring maintenance and operations agreements remain consistent with Environmental Stewardship standards.
- Monitor and provide input into Landscape Unit Planning, Forest Development Plans, mineral exploration projects, and commercial recreation proposals for lands adjacent to the park.
- Monitor the visitation data provided by the private guiding companies as part of their park use permits.
- Maintain existing helicopter access permits while ensuring strict compliance with flight guidelines.
- Retain wildlife trees except where there is a hazard to visitors or facilities whereupon a Wildlife/Danger Tree Assessment will be conducted to determine the highest value to wildlife and remedial action.
- Monitor and assess, with associated agencies and operators, any impacts to natural and/or visual values from helicopter access or over-flights, and amend or cancel park use permits if required.
- Manage use to ensure proper disposal of human waste in backcountry and wilderness areas.
- Ensure sanitary facilities are properly designed and located.
- Any further water impoundment, diversions, or new domestic use projects must be in accordance with the *Park Act*.
- Ensure adequate water supply and quality for endangered fish species and other resident indigenous fish stock.
- Conduct inventories of indigenous and resident fish populations as required.
- Ensure sanitary facilities in backcountry cabin/campsite locations within the park are non-polluting.
- Increase the knowledge and understanding of wildlife and their habitat requirements both inside and outside the park.
- Manage the park to maintain functioning ecosystems while accommodating appropriate recreation opportunities (e.g., re-examine hunting regulations on an annual basis, develop a recreational carrying capacity, educate visitors and use trail closures if needed).
- Place greater emphasis on using a science-informed approach with regards to managing wildlife.

⁴² PEM completed in 2003.

⁴³ Ecosystem management provides a conceptual approach for the protection of park ecosystems. It involves taking a more global view of the natural environment and ensuring that land use decisions take into consideration the complex nature of ecosystems. It is also important to keep in mind that park management will have effects on surrounding lands and their management (Parks Canada 2004).

- Encourage the assistance of volunteers and others to collect wildlife data with BC Parks Observation Cards (e.g. bird watching clubs, anglers, heli-taxi and tour operators, etc.).
- Manage bear/human conflict in accordance with the BC Parks Bear-People Conflict Prevention Plan.
- Protect 'in situ' important features and traditional use sites if discovered in the park.
 Such sites will not be identified on any public park literature in order to protect them from damage.
- Utilize the BC Archaeological Assessment Guidelines whenever development plans have the potential to disturb traditional use sites.
- Work with First Nations and the Archaeology Planning and Assessment Section in managing the archaeological and heritage resources in the park including adherence to research standards and protocols.
- Locate and design all park facilities in harmony with the visual setting and in accordance with park zoning objectives.
- Encourage the Ministry of Forests and Range and forest licensees manage areas outside the park boundary in accordance with the *Forest and Range Practices Act* ⁴⁴ of British Columbia to protect viewscapes.
- Encourage colleges, universities, other agencies, and corporate sponsors to establish
 funding for and to undertake appropriate and timely research studies including inventory
 and monitoring of values at risk.
- Limit scientific research that involves collecting specimens.
- Ensure that any material that is collected for scientific research will remain the property of the Province of British Columbia, regardless of where it is stored.
- Maintain status-quo of available bed space/overnight visitor capacity associated with backcountry cabins⁴⁵.
- Limit commercial use of all cabins to self-service and prohibit the offering of meals, housekeeping, and provision of bedding services.
- Close, relocate or improve trails as required if bear and visitor safety problems arise.
- Use BC Parks' Impact Assessment processes prior to developments to assess and mitigate impacts.
- Assess conditions and monitor backcountry visitor numbers and destinations to protect natural values in accordance with the Backcountry Recreation Impact Monitoring (BRIM) Policies.
- Continue education and enforcement of regulations pertaining to "no dogs" and "no campfires".
- Continue to liaise with the Canadian Avalanche Association with respect to providing up to date avalanche bulletins and education.
- Through inter-agency planning processes, encourage mechanized recreation outside the park in areas unlikely to impact wildlife connectivity.
- Assess, monitor, and regulate hunting in co-operation with First Nations, hunters, and special interest groups to ensure conservation objectives are met.

⁴⁴ The Act and regulations take effect Jan. 31, 2004. Any activities already approved under the existing Forest Practices Code may continue until Dec. 31, 2005. After that, all planning and on-the-ground work must comply with the Forest and Range Practices Act and regulations.

⁴⁵ See Background Report for available bed space in respective cabins.

- Obtain updated wildlife data in order to manage for sustainable wildlife populations and appropriate hunting levels.
- Review hunting regulations on an annual basis with the ESD Fish and Wildlife Section
 with emphasis on endangered and vulnerable species, Mountain Goats, and Grizzly
 Bears. Review any subsequent proposed changes with First Nations, recreational hunters
 and guide outfitters.
- Limit new commercial recreation services to low impact proposals that do not require new infrastructure to be located in the park.
- Encourage ecotourism infrastructure to be located in nearby communities.
- Conduct BC Parks' Impact Assessment Process for recreation services with specific
 concerns for the impact on species such as Grizzly Bears and Mountain Goats. Quotas
 may be set for commercial operators and a limit set on public visitation when monitoring
 shows the environmental and/or wilderness carrying capacities are close to being
 exceeded.
- Coordinate with the Ministry of Forests and Range and the Ministry of Transportation and Infrastructure with respect to the management of roads, trails, and trailheads that provide access to the park including road maintenance, enhancement and reclamation.
- Place emphasis on maintaining the Kokanee Creek Road and Woodbury Road to a high standard to allow easy and safe access for park visitors and to accommodate increase use if required.
- Liaise on a regular basis with groups representing park users and commercial operators to ensure that park management benefits from their knowledge and input.
- Consult with First Nations on the strategies that affect their traditional use.
- Use volunteers where possible to enhance park management.
- Continue to prepare Annual Management Plans to determine the annual management requirements of the park including the management strategies to be implemented.
- Consult with the Fish and Wildlife and the Ecosystem Sections of the Regional Operations Branch, Environmental Stewardship Division, on the management of ecosystems and conservation issues.
- Work with commercial operators, tourism associations and the media to portray the park in an appropriate manner and create expectations appropriate to a wilderness park
- Continue to use park information shelters at designated access points to provide important safety information and wilderness ethics to visitors.
- Research and communicate the latest information on low impact use practices to visitors.
- Work with local communities and tourism associations in providing appropriate pre-trip planning information.
- Ensure any publications on Kokanee Glacier Provincial Park are current and accurate.
- Maintain the natural character of the park by limiting any signage to where it is necessary for visitor safety or the protection of sensitive sites.
- Encourage that the ACC assumes a lead role in pre-trip planning for park visitors year round.
- Involve stakeholder groups in management initiatives that are focused on preserving and interpreting the historic features of the park (e.g. Friends of West Kootenay Parks).
- Ensure that research relating to the role of First Nations in the park involves First Nations peoples.

- Work co-operatively with other agencies and jurisdictions to ensure wildlife (e.g., Grizzly Bear, Mountain Goat and Wolverine) habitat that exists external to the park is maintained, including effective connectivity throughout the region's protected areas, and Special Resource Management Zones (SRMZs).
- Increase information and understanding of ecosystem values and processes in partnership with other agencies and jurisdictions through the sharing of inventory and research.
- Apply practices and principles, where appropriate, of the BC Parks ecosystem-based management approach as they are developed.
- Monitor and provide input into Landscape Unit Planning, Forest Development Plans, mineral exploration projects, and commercial recreation proposals for lands adjacent to the park.
- Limit habitat fragmentation in the park when considering facilities or uses.

Appendix A – Appropriate Use Tables

The Allowable column indicates the generic status of such activity, use or facility in the protected areas system. The Applied column indicates if the activity, use or facility is applicable to the zone in this park. The symbols within the figures below are defined as follows: Y = allowed subject to conditions identified in the management plan; M = may be permitted if compatible with protected area objectives; N = not allowed; N1 = allowed for expressed management purposes only; N2 = present and allowed to continue (KBLUP-IS) but not normally allowed and N/A = not applicable given site conditions. Y* is used to indicate that the current hunting regulation only allows for the discharge of firearms in the park from Nov. 1 - Nov. 30 during a lawful game hunting season.

Wilderness Recreation Zone

Activity	Allowable in WR Zone	Applied in this park's WR Zone
Biking	N	N
Camping – backcountry/no trace	Υ	Υ
Commercial recreation (facility-based)	N	N
Commercial recreation (non-facility based)	Υ	Υ
Fishing	Υ	Υ
Hiking and walking	Υ	Υ
Hiking (helicopter assisted)	М	N
Hunting	Υ	γ*
Natural and cultural values appreciation (birding, photography, wildlife viewing)	Y	Y
Scientific research (manipulative activities)	М	M
Scientific research (specimen collection)	М	М
Skiing (downhill & cross-country track based)	N	N
Skiing (helicopter or snowcat assisted)	N	N
Backcountry skiing	Υ	Υ
Trapping	N	N
Use		
Aircraft access	M	М
Exotic insect/disease control	Υ	Υ
Filming (commercial)	M	М
Fire management (prescribed fire management)	M	М
Fire management (prevention)	N1	N1
Fire management (suppression)	N1	N1
Fish stocking and enhancement	M	M
Forest insect/disease control	N1	N1

Grazing (domestic livestock)	N	N
Guide outfitting (fishing)	Y	Υ
Guide outfitting (hunting)	Y	γ*
Guide outfitting (nature tours)	Υ	Y
Horse use/pack animals (not exotic)	Y	N
Motorized water access	N	N
Non-motorized water access	Y	Υ
Noxious weed control	N1	N1
Off-road access (non-mechanical – dog sleds, horse sleds)	М	N
Off-road access (mechanical activities)	N	N
Off-road access (motorized – not snowmobiles)	N	N
Off-road access (snowmobiles)	N	N
Pack animals (exotic)	N	N
Facility		
Administrative buildings and compounds	N	N
Backcountry huts and shelters	М	М
Boat launches	N	N
Campgrounds and picnic areas (vehicle access and serviced))	N	N
Campgrounds (designated backcountry sites)	М	Υ
Communication sites	N	N
Interpretation and information buildings	N	N
Roads and parking lots	N	N
Ski hills and snow play areas	N	N
Lodges and other serviced accommodation	М	N
Trails (hiking)	Y	Υ
Utility corridors	N	N
Water control structures	N	N

Nature Recreation Zone

Activity	Allowable in NR Zone	Applied in this park's NR Zone	
Boating (non-power)	Υ	Υ	
Biking	Υ	Υ	
Camping – backcountry/no trace	Υ	Υ	
Commercial recreation (facility-based)	N	M	
Commercial recreation (non-facility based)	Υ	Υ	
Fishing	Y	Υ	
Hiking and walking	Y	Υ	

Hiking (helicopter assisted)	Y	N
Hunting	Y	γ*
Natural and cultural values appreciation (birding, photography, wildlife viewing)	Y	Υ
Scientific research (manipulative activities)	N1	N1
Scientific research (specimen collection)	М	N1
Skiing (downhill & cross-country track based)	N	N
Skiing (helicopter or snow cat-assisted)	N	N
Backcountry skiing	Υ	Υ
Trapping	N	N
Use		
Aircraft access	Y	Υ
Exotic insect/disease control	N1	N1
Filming (commercial)	М	M
Fire management (prescribed fire management)	N	N
Fire management (prevention)	N1	N1
Fire management (suppression)	Υ	Υ
Fish stocking and enhancement	М	M
Forest insect/disease control	М	M
Grazing (domestic livestock)	N	N
Guide outfitting (fishing)	Υ	Υ
Guide outfitting (hunting)	Y	γ*
Guide outfitting (nature tours)	Y	Υ
Guide outfitting (river rafting)	Y	M
Horse use/pack animals (not exotic)	Υ	M
Non-motorized water access	Υ	Υ
Noxious weed control	Υ	Υ
Off-road access (non-mechanical – dog sleds, horse sleds)	Υ	N
Off-road access (mechanical activities)	Υ	N
Off-road access (motorized - not snowmobiles)	N	N
Off-road access (snowmobiles)	Y	N
Pack animals (exotic)	N	N
Facility		
Administrative buildings and compounds	N	N
Backcountry huts and shelters	Υ	Υ
Campgrounds and picnic areas (vehicle access and serviced))	N	N
Campgrounds (designated backcountry sites)	Υ	Υ
Communication sites	N1	N1
Interpretation and information buildings	Υ	Υ

Lodges and other serviced accommodation	Υ	Υ
Roads and parking lots	N	N
Ski hills and snow play areas	N	N
Trails (hiking, cycling, cross-country skiing)	Υ	Υ
Utility corridors	N	N
Water control structures	N	N2

Intensive Recreation Zone

Activity	Allowable in the IR Zone	Applied in this park's IR Zone
Boating (power)	Y	N
Boating (no-power)	Y	Υ
Biking	Y	N
Camping – no trace	Υ	N
Camping - other	Υ	N
Commercial recreation (facility-based)	Υ	M
Commercial recreation (non-facility based)	Υ	Υ
Fishing	Υ	Υ
Hiking and walking	Υ	Υ
Hunting	N	γ*
Natural and cultural values appreciation (birding, photography, wildlife viewing)	Υ	Υ
Scientific research (manipulative activities)	N	N
Scientific research (specimen collection)	М	N
Skiing (cross-country track based)	Υ	M
Trapping	N	N
Use		
Aircraft Access	Υ	N
Exotic insect/disease control	Y	Y
Filming (commercial)	М	М
Fire management (prescribed fire management)	Y	Υ
Fire management (prevention)	Υ	Υ
Fire management (suppression)	Υ	Υ
Fish stocking and enhancement	М	М
Forest insect/disease control	Y	Υ
Grazing (domestic livestock)	N	N
Guide outfitting (fishing)	Υ	Υ
Guide outfitting (hunting)	N	γ*

Guide outfitting (nature tours)	Υ	Υ
Horse use/pack animals (not exotic)	Y	N
Motorized water access	Y	N
Non-motorized water access	Y	Υ
Noxious weed control	Y	Υ
Off-road Access (mechanical activities)	Y	N
Off-road Access (motorised - not snowmobiles)	Y	N
Pack animals (exotic)	N	N
Facility		
Administrative buildings and compounds	Υ	N
Backcountry huts and shelters	М	М
Campgrounds and picnic areas (vehicle access and serviced)	Υ	М
Campground (designated backcountry sites)	Y	М
Communications sites	N1	N1
Interpretation and information buildings	Υ	Υ
Roads and parking lots	Υ	Υ
Lodges and other serviced accommodation	Υ	М
Trails (hiking, cycling, cross-country skiing)	Y	М
Utility corridors	N	N2
Water control structures	N1	N2

Appendix B - KBLUP-IS (Chapter 4 Protected Areas)

4.1 Introduction

One of the purposes of regional and sub-regional land use planning processes, including the West Kootenay-Boundary Land-Use Plan, has been to implement the provincial government's Protected Areas Strategy (PAS). The PAS has two goals:

Goal 1 – Representation: To protect viable examples of the natural diversity of the province, representative of the major terrestrial, marine, and freshwater ecosystems, the characteristic habitats, hydrology and landforms, and the characteristic backcountry recreational and cultural heritage values of each ecosection.

Goal 2 - Special Features Protection: To protect the special natural, cultural heritage and recreational features of the province, including endangered and vulnerable species and critical habitats, outstanding or unique botanical, zoological, geological, and paleontological features, outstanding or fragile cultural heritage features, and outstanding outdoor recreational features.

The Kootenay-Boundary Regional Land-Use regional planning process dealt primarily with the PAS Goal 1. Further work is required to complete the Goal 2 process.

As a result of the West Kootenay-Boundary Land Use regional planning process, the provincial government, in July 1995, established nine new protected areas. Through designation under the *Park Act*, all new protected areas have become Class A provincial parks. Consequently, the terms 'provincial parks' and 'protected areas' are used interchangeably in the KBLUP Implementation Strategy.

The establishment of the new protected areas plays an essential role in the realisation of the plan's environmental conservation objectives, particularly through contribution towards general biodiversity maintenance and the protection of essential habitat areas for maintenance of species health. The parks also contribute significantly to regional recreational and cultural heritage objectives, as well as to long-term economic objectives.

The following section identifies general management objectives and strategies for the region's new protected areas. A description of each new park and an indication of further planning priorities are included in Table 4.1.

Pre-Existing Tenures and In-Holdings

- 2. To recognize the legal rights of pre-existing tenure holders and landowners within newly established parks in the region, and to deal fairly with those interests.
- 2.1 Pre-existing mineral and timber tenures and other tenures / encumbrances associated with commodity extraction (e.g., gravel reserves) will be discontinued within new protected areas. The terms of discontinuance will be negotiated with owners of pre-existing tenure interests, in accordance with provincial policy respecting resource rights compensation. Tenure discontinuance negotiations will also consider ongoing silviculture obligations (e.g., free-to-grow requirements), and rehabilitation of harvested areas and roads in key locations.
- 2.2 Pre-existing tenures within new protected areas for utility rights-of-way, communication sites, grazing, commercial backcountry recreation, commercial heliskiing or hiking, guide-outfitting, trapping, water works and use, etc., will be permitted to continue, in accordance with the existing management conditions attached to those tenures. In the future, the management conditions attached to those tenures may be amended to comply with the requirements of park master plans that are developed for individual protected areas.
- 2.3 Existing grazing authorisations issued under the Range Act within new (1995) protected areas will continue to be managed according to the Range Act are fully transferable. Where pre-existing tenures other than Range Act tenures lapse or are voluntarily surrendered by a tenure holder, the province is under no obligation to re-issue the tenure rights to a new party. Whether or not tenure rights are to be re-issued should be resolved through the protected areas management planning process.
- 2.4 Existing owners of private land in-holdings within new parks will continue to exercise their property rights, and existing opportunities for access to those properties will be addressed.

Natural Occurrences	
3. To protect key park values and adjacent private property, as appropriate, from natural occurrences in protected areas.	3.1 Where appropriate, natural occurrences in new parks, such as fires, insects, forest diseases, will be managed as in other provincial parks, through consultation and joint action by BC Parks, BC Environment and the Ministry of Forests and Range at the District level.
	3.2 Fire management plans will be developed for areas within new parks that are proximate to residential settlement, and where traditional land management includes burning for winter range enhancement.
Park Management	
4. To maintain ecosystem representation and ensure protection of key representative features.	4.1 Park management emphasis will be placed on maintaining the ecosystems and features for which these areas were established.
	4.2 Parks will be managed to compliment biodiversity objectives across landscape units, where appropriate.
	4.3 Where existing grazing tenures occur, alpine and subalpine grassland meadows will be maintained in conjunction with MOF through application of high elevation grassland guidelines.
	4.4 Sound park management relies on good resource information. BC Parks, BC Environment and the Ministry of Forests and Range will work together to collect resource inventory for the new parks.
	4.5 The natural diversity of previously harvested sites and affected habitats will be restored through negotiation of silvicultural obligations.
	4.6 Previously open forests and grasslands have become ingrown because of fire suppression. Where appropriate, vegetation management will be undertaken primarily using fire to restore natural grasslands.
5. To ensure protection of key species and their habitats.	5.1 BC Parks will work with other agencies to ensure connectivity of wildlife habitat between the park and surrounding area.
	5.2 Opportunities to establish Grizzly Bear benchmarks for scientific study and management will be investigated.
	5.3 Endangered and vulnerable species and their habitats will be protected.

	5.4 Ungulate habitat, cover and site-specific features will be considered in management processes.
6. To maintain backcountry recreation opportunities.	6.1 While BC Parks will continue to manage parks to provide a wide range of recreational experiences, protected areas will provide the primary opportunities for primitive and wilderness recreation. Where appropriate, existing access and trails within protected areas may be closed or decommissioned to support primitive recreational experiences. Similarly, recreational access to some areas may be limited to maintain the quality of recreational experience.
	6.2 Levels of recreational use and associated impacts will be monitored and management applied where necessary to maintain the wilderness qualities, where appropriate.
	6.3 BC Parks will work with MOF to promote good visual design of logging and appropriate access management in areas adjacent to parks.
7. To plan and manage parks in a manner which reflects the cultural heritage.	7.1 Local First Nations will be consulted to establish traditional use in the area.
	7.2 Options to work in co-operation with First Nations in the management of area will be identified in the treaty process.
	7.3 European history will be considered in the management strategies.

Table 4.1

New Protected Areas (Class A Provincial Parks) Established as a Result of the Regional Land Use Plans

Park Name	Approx. Area (ha)	Priority for Development of Park Master Plan
East Kootenay LUP		
Akamina – Kishinena	10,921	Moderate
Bugaboo	13,646	High
Upper Cummins	6,1081	Low
East Purcells	36,938	Moderate
Elk Lakes	17,245	High
Gilnockie	2,822	Low
Height of the Rockies	53,964	High
Subtotal	141,717	
West Kootenay/BLUP		
Gladstone	39,361	High
Goat Range	78,936	High
Granby	40,845	High
Kianuko	11,677	Moderate
Lockhart Creek	3,751	Moderate
West Arm	25,254	High
Syringa	4,191	Low
Kokanee Glacier Extension	6,203	Moderate
West Purcells	32,662	Low
Subtotal	242,880	
Total Area	383,182	

Note: the Findlay corridor within the East Purcells is protected under the *Environment and Land Use Act*.

Appendix C - BC Parks System Goals

Conservation

BC Parks has two conservation goals:

Goal 1) Protection of Representative Landscapes - To conserve British Columbia's natural diversity by protecting viable, representative examples of our different landscapes.

Goal 2) Protection of Special Features - To protect British Columbia's key natural and cultural features, including outstanding examples of our wildlife, old-growth forests, waterfalls and cultural artefacts.

Recreation

BC Parks has four recreation goals:

Goal 1) Tourism Travel Routes - To provide park attractions and services, which enhance tourism travel routes.

Goal 2) Outdoor Recreation Holiday Destinations - To provide park attractions which serve as or improve key destinations for outdoor recreation holidays.

Goal 3) Backcountry - To provide outstanding backcountry recreation opportunities throughout the province. Some sites may feature adventure tourism, while in other areas the wilderness would remain untouched.

Goal 4) Local Recreation - To ensure access to local outdoor recreation opportunities for all residents of this province.

Appendix D - BC Parks Zone Descriptions

Zoning Descriptions

Zoning Descriptio		=		I
Intensive Recreation	Nature Recreation	Special Feature	Wilderness	Wilderness
			Recreation	Conservation
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.	To protect a remote, undisturbed natural landscape and to provide backcountry recreation opportunities dependent on a pristine environment where air access may be permitted to designated sites.	To protect a remote, undisturbed natural landscape and to provide unassisted backcountry recreation opportunities dependent on a pristine environment where no motorized activities will be allowed.
USE LEVEL				
Relatively high density and long duration types of use.	Relatively low use but higher levels in association with nodes of activity or access.	Generally low.	Very low use, to provide solitary experiences and a wilderness atmosphere. Use may be controlled to protect the environment.	Very low use, to provide solitary experiences and a wilderness atmosphere. Use may be controlled to protect the environment.
MEANS OF ACCESS				<u>, </u>
All-weather public roads or other types of access where use levels are high (see "Impacts" below).	Mechanized (powerboats, snowmobiles, all terrain vehicles), non-mechanized (foot, horse, canoe, bicycle). Aircraft and motorboat access to drop-off and pickup points will be permitted.	Various; may require special access permit.	Non-mechanized; except may permit low frequency air access to designated sites; foot, canoe (horses may be permitted).	Non-mechanized (no air access); foot, canoe (horses may be permitted).
LOCATION				1
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 o r next to any of the other zones.	Remote; not easily visited on a day-use basis.	Remote; not easily visited on a day-use basis.
SIZE OF ZONE				
Small; usually less than 2,000 ha.	Can range from small to large.	Small; usually less than 2000 hectares	Large; greater than 5,000 hectares.	Large; greater than 5,000 hectares.

Intensive Recreation	Nature Recreation	Special Feature	Wilderness Recreation	Wilderness Conservation
BOUNDARY DEFINIT	TON			
Includes areas of high facility development in concentrated areas.	Boundaries should consider limits of activity/facility areas relative to ecosystem characteristics and features.	Area defined by biophysical characteristics or the nature and extent of cultural resources (adequate to afford protection).	Defined by ecosystem limits and geographic features. Boundaries will encompass areas of visitor interest for specific activities supported by air access. Will be designated under the Park Act.	Defined by ecosystem limits and geographic features. Will be designated under the Park Act.
RECREATION OPPO	RTUNITIES			
Vehicle camping, picnicking, beach activities, power-boating, canoeing, kayaking, strolling, historic and nature appreciation, fishing, snow play, downhill and cross-country skiing, snowshoeing, specialized activities.	Walk-in/boat-in camping, power-boating, hunting, canoeing, kayaking, backpacking, historic and nature appreciation, fishing, X-country snowmobiling skiing, river rafting, horseback riding, heli-skiing & hiking, and specialized activities.	Sightseeing, historic and nature appreciation. May be subject to temporary closures or permanently restricted access.	Backpacking, canoeing, kayaking, river rafting, nature and historic appreciation, hunting, fishing, cross-country skiing, snowshoeing, horseback riding, specialized activities (e.g. caving, climbing).	Backpacking, canoeing, kayaking, river rafting, nature and historic appreciation, fishing, cross-country skiing, snowshoeing, horseback riding, specialized activities (e.g. caving, climbing).
FACILITIES				
May be intensely developed for user convenience. Roads, trails, campgrounds, picnic/play areas, boat launches, visitor & admin buildings, service compounds, gravel pits, disposal sites, parking lots, etc.	Moderately developed for user convenience. Trails, walk-in/ boat-in campsites, shelters, service buildings may be permitted; facilities for motorized access e.g. docks, landing strips, fuel storage, etc.	Interpretive facilities only, resources are to be protected.	Minimal facility development for user convenience and safety, and protection of the environment e.g. trails, primitive campsites, etc. Some basic facilities at access points, e.g. dock, primitive shelter, etc.	None.
IMPACTS ON NATUR	RAL ENVIRONMENT			
Includes natural resource features and phenomena in a primarily natural state but where human presence may be readily visible both through the existence of recreation facilities and of people using the zone. Includes areas of high facility development with significant impact on concentrated areas.	Area where human presence on the land is not normally visible, facility development limited to relatively small areas. Facilities are visually compatible with natural setting.	Natural values are to be protected. Interpretation facilities to be limited to small areas.	Natural area generally free of evidence of modern human beings. Evidence of human presence is confined to specific facility sites. Facilities are visually compatible with natural setting.	Natural area generally free of evidence of modern human beings.
Intensive Recreation	Nature Recreation	Special Feature	Wilderness	Wilderness
			Recreation	Conservation

		.	T	
Intensive management of natural values and/or control of visitor activities. Landscape changes may occur to increase carrying capacity of the area. Direct management intervention may occur to protect natural values and enhance recreation opportunities. Compatible scientific research and monitoring encouraged.	Management oriented to maintaining a natural environment where visitor access may be restricted to preserve the recreation experience or to limit impacts. Direct management intervention may occur to protect natural values or enhance recreation opportunities. Compatible scientific research and monitoring is encouraged.	High level of management protection with ongoing monitoring. Natural processes will normally be allowed to continue unhindered; in some instances, protection of rare, unique, outstanding, threatened and endangered natural values may require specific management intervention. Visitor access may be restricted to preserve the recreation experience and limit impacts. Any scientific study must be clearly justified and carried out under permit.	High level of management protection for pristine wildland. Active resource management programs may be allowed if essential for protection of significant natural values. Visitor access may be restricted to protect the natural environment and visitor experience.	Highest level of management protection for pristine wildland. Natural processes will be allowed to continue unhindered. Specific management intervention will not be permitted unless essential to protection or survival of significant natural values. Visitor access may be restricted to protect the natural environment and visitor experience.
	GEMENT GUIDELINES		Γ	T
Management oriented toward maintaining a high quality recreation experience. Requires careful management and upkeep of intensive use outdoor recreation facilities. Facilities designed for efficient operation while remaining unobtrusive to the park visitor.	Management oriented to presenting high quality recreation experiences in a natural setting. Separation of less compatible recreational activities and methods of transportation may be necessary to avoid potential conflicts (e.g. horse trails, cycle paths, hiking trails).	Management dedicated to educating visitors through interpretation of features. Visitor access may be restricted to limit damage to features. Facility development and visitor use will be determined by the area's carrying capacity.	Management dedicated to maintaining a visitor recreation experience of solitude, freedom, and physical challenge in a primitive natural setting. Facility development and visitor use will be determined by the area's carrying capacity.	Management dedicated to maintaining a visitor recreation experience of solitude, freedom, and physical challenge in a primitive natural setting. Visitor use will be determined by the area's carrying capacity.
EXAMPLES OF ZONI	NG			
Campground in Rathtrevor Beach Park; Gibson Pass ski area in E.C. Manning Park.	Core area in Cathedral Park; North beach in Naikoon Park.	Tidepools in Botanical Beach Park; Sunshine Meadows in Mount Assiniboine Park.	Quanchus Mountains Wilderness in Tweedsmuir Park; Moose River Valley in Mount Robson Park.	Central Valhalla Wilderness in Valhalla Park; Garibaldi Park Nature Conservancy area.

Appendix E - Endangered and Vulnerable Flora

Endangered and vulnerable flora species within the **Arrow Boundary Forest District**: Shading indicates confirmation within Kokanee Glacier Provincial Park. To-date, inventories have been limited to areas surrounding Kokanee Glacier Cabin only.

Scientific Name	English Name	G Rank	Provincial	COSEWIC	BC Status
Agastache urticifolia	nettle-leaved giant-hyssop	G5	S3		BLUE
Agoseris lackschewitzii	pink agoseris	G4	S2S3		BLUE
Arabis holboellii var. pinetorum	Holboell's rockcress	G5T5?	S2S3		BLUE
Arnica longifolia	seep-spring arnica	G5	S2S3		BLUE
Aster ascendens	long-leaved aster	G5	S2S3		BLUE
Astragalus microcystis	least bladdery milk-vetch	G5	S1		RED
Astragalus vexilliflexus var. vexilliflexus	bent-flowered milk-vetch	G4TNR	S2S3		BLUE
Botrychium simplex	least moonwort	G5	S2S3		BLUE
Carex amplifolia	bigleaf sedge	G4	S2S3		BLUE
Carex epapillosa	blackened sedge	G5	S2S3		BLUE
Carex lenticularis var. lenticularis	lakeshore sedge	G5T5	S2		RED
Carex scoparia	pointed broom sedge	G5	S2S3		BLUE
Castilleja tenuis	hairy owl-clover	G5	S1		RED
Cheilanthes gracillima	lace fern	G4G5	S2S3		BLUE
Clarkia pulchella	pink fairies	G5?	S3		BLUE
Clarkia rhomboidea	common clarkia	G5	S1		RED
Coreopsis tinctoria var.	Atkingon's coronnis	CETE	C1		בר
atkinsoniana	Atkinson's coreopsis	G5T5	S1		RED
Crepis occidentalis ssp. pumila	western hawksbeard	G5T5	S1		RED
Delphinium sutherlandii	Sutherland's larkspur	GNR	S2S3		BLUE
Dicentra uniflora	steer's head	G4?	S2S3		BLUE
Dryopteris cristata Epilobium glaberrimum ssp. fastigiatum	crested wood fern smooth willowherb	G5 G5TNR	S2S3 S2S3		BLUE
Epilobium leptocarpum	small-fruited willowherb	G5	S2S3		BLUE
Erysimum asperum	prairie rocket	G5	S1		RED
Floerkea proserpinacoides	false-mermaid	G5	S2S3	NAR (1984)	BLUE
Hesperochiron pumilus	dwarf hesperochiron	G4	S1		RED
Hesperostipa spartea	porcupinegrass	G5	S2		RED
Heterocodon rariflorum	heterocodon	G5	S3		BLUE
Hypericum scouleri ssp. nortoniae	western St. John's-wort	G5TNR	S2S3		BLUE
Impatiens ecalcarata	spurless touch-me-not	G3G4	S2S3		BLUE
Lewisia triphylla	three-leaved lewisia	G4?	S2S3		BLUE
Ligusticum verticillatum	verticillate-umbel lovage	G4G5	S2S3		BLUE
Linanthus harknessii	Harkness' linanthus	G4?	S1		RED
Linanthus septentrionalis	northern linanthus	G5	S2S3		BLUE
Lotus unifoliolatus var. unifoliolatus	Spanish-clover	G5T5	S2S3		BLUE
Melica smithii	Smith's melic	G4	S2S3		BLUE
Melica spectabilis	purple oniongrass	G5	S2S3		BLUE
Mertensia paniculata var. borealis	tall bluebells	G5TNR	S2S3		BLUE
Mimulus breviflorus	short-flowered monkey-flower	G4	S1		RED
Mimulus breweri	Brewer's monkey-flower	G5	S2S3		BLUE
Scientific Name	English Name	G Rank	Provincial	COSEWIC	BC Status

Oxytropis campestris var. columbiana	Columbia River locoweed	G5T3	S3	BLUE
Polemonium occidentale ssp. occidentale	western Jacob's-ladder	G5?T5?	S2S3	BLUE
Polygonum polygaloides ssp. kelloggii	Kellogg's knotweed	G4G5T3 T5	S2S3	BLUE
Rubus nivalis	snow bramble	G4?	S2	RED
Salix boothii	Booth's willow	G5	S2S3	BLUE
Scirpus pallidus	pale bulrush	G5	S1	RED
Scutellaria angustifolia	narrow-leaved skullcap	G5	S2S3	BLUE
Senecio hydrophiloides	sweet-marsh butterweed	G4G5	S1	RED
Senecio hydrophilus	alkali-marsh butterweed	G5	SH	RED
Solidago gigantea ssp. serotina	smooth goldenrod	G5TNR	S1	RED
Stellaria obtusa	blunt-sepaled starwort	G5	S2S3	BLUE
Trichostema oblongum	mountain blue-curls	G5	S1	RED
Trifolium cyathiferum	cup clover	G4	S1	RED
Viola septentrionalis	northern violet	G5	S2S3	BLUE

Endangered and vulnerable flora species within the **Kootenay Lake Forest District**: Shading indicates confirmation within Kokanee Glacier Provincial Park. To-date, inventories have been limited to areas surrounding Kokanee Glacier Cabin only.

Scientific Name	English Name	G Rank	Provincial	COSEWIC	BC Status
Acorus americanus	American sweet-flag	G5	S2S3		BLUE
Anemone canadensis	Canada anemone	G5	S2S3		BLUE
Anemone piperi	Piper's anemone	G4	S1		RED
Artemisia ludoviciana var. incompta	western mugwort	G5TNR	S2S3		BLUE
Bidens vulgata	tall beggarticks	G5	S1		RED
Calamagrostis montanensis	plains reedgrass	G5	S2		RED
Callitriche heterophylla ssp. heterophylla	two-edged water-starwort	G5T5	S2S3		BLUE
Carex adusta	lesser brown sedge	G5	S1		RED
Carex amplifolia	bigleaf sedge	G4	S2S3		BLUE
Carex comosa	bearded sedge	G5	S2S3		BLUE
Carex heleonastes	Hudson Bay sedge	G4	S2S3		BLUE
Carex lenticularis var. lenticularis	lakeshore sedge	G5T5	S2		RED
Carex scoparia	pointed broom sedge	G5	S2S3		BLUE
Carex scopulorum var. bracteosa	Holm's Rocky Mountain sedge	G5TNR	S2S3		BLUE
Carex tenera	tender sedge	G5	S2S3		BLUE
Carex vulpinoidea	fox sedge	G5	S2S3		BLUE
Cheilanthes gracillima	lace fern	G4G5	S2S3		BLUE
Clarkia pulchella	pink fairies	G5?	S3		BLUE
Crassula aquatica	pigmyweed	G5	S3		BLUE
Delphinium bicolor ssp. bicolor	Montana larkspur	G4G5TNR	S2S3		BLUE
Downingia elegans	common downingia	G5	SX		RED
Dryopteris cristata	crested wood fern	G5	S2S3		BLUE
Elodea nuttallii	Nuttall's waterweed	G5	S2S3		BLUE
Elymus virginicus var. submuticus	beardless wildrye	G5T4T5	SH		RED
Epilobium halleanum	Hall's willowherb	G5	S2S3		BLUE
Epipactis gigantea	giant helleborine	G3	S2S3	SC (1998)	BLUE
Glycyrrhiza lepidota	wild licorice	G5	S2		RED
Helenium autumnale var. grandiflorum	mountain sneezeweed	G5TNR	S2S3		BLUE
Heterocodon rariflorum	heterocodon	G5	S3		BLUE

Hypericum scouleri ssp. nortoniae	western St. John's-wort	G5TNR	S2S3		BLUE
Idahoa scapigera	scalepod	G5	S2		RED
Impatiens aurella	orange touch-me-not	G4?	S2S3		BLUE
Impatiens ecalcarata	spurless touch-me-not	G3G4	S2S3		BLUE
Juncus confusus	Colorado rush	G5	S1		RED
Juncus regelii	Regel's rush	G4?	S3		BLUE
Lewisia triphylla	three-leaved lewisia	G4?	S2S3		BLUE
Ligusticum verticillatum	verticillate-umbel lovage	G4G5	S2S3		BLUE
Linanthus septentrionalis	northern linanthus	G5	S2S3		BLUE
Lupinus arbustus ssp. pseudoparviflorus	Montana lupine	G5TNR	S1		RED
Megalodonta beckii var. beckii	water marigold	G4G5T4	S3		BLUE
Scientific Name	English Name	G Rank	Provincial	COSEWIC	BC Status
Melica bulbosa var. bulbosa	oniongrass	G5T5	S2		RED
Melica smithii	Smith's melic	G4	S2S3		BLUE
Mertensia paniculata var. borealis	tall bluebells	G5TNR	S2S3		BLUE
Monardella odoratissima ssp. odoratissima	monardella	G4G5TNR	S1		RED
Muhlenbergia glomerata	marsh muhly	G5	S3		BLUE
Myriophyllum ussuriense	Ussurian water-milfoil	G3	S3		BLUE
Oxytropis campestris var. columbiana	Columbia River locoweed	G5T3	S3		BLUE
Platanthera dilatata var. albiflora	fragrant white rein orchid	G5TNR	S2S3		BLUE
Polygonum polygaloides ssp. kelloggii	Kellogg's knotweed	G4G5T3T5	S2S3		BLUE
Scrophularia lanceolata	lance-leaved figwort	G5	S2S3		BLUE
Senecio hydrophiloides	sweet-marsh butterweed	G4G5	S1		RED
Senecio hydrophilus	alkali-marsh butterweed	G5	SH		RED
Sphenopholis obtusata	prairie wedgegrass	G5	S1		RED
Stellaria obtusa	blunt-sepaled starwort	G5	S2S3		BLUE
Thalictrum dasycarpum	purple meadowrue	G5	S2S3		BLUE
Thermopsis rhombifolia	prairie golden bean	G5	S1		RED
Wolffia borealis	northern water-meal	G5	S2		RED

Appendix E - Rare Natural Plant Communities

Shading indicates occurrence within Kokanee Glacier Provincial Park (requires confirmation by on-site inventory)

English Name	Biogeoclimatic Site Unit(s)	Provincial List	Forest District
Subalpine fir / black huckleberry / bear-grass	ESSFwc1/00	Blue	KLFD
Douglas-fir / tall Oregon-grape / parsley fern	ICHdw/02	Red	KLFD
Western redcedar/Douglas-fir - mock-orange	ICHxw/01	Blue	KLFD
Subalpine fir / black huckleberry / bear-grass	ESSFwc1/00 ESSFwc4/00	Blue	ABFD
Douglas-fir / tall Oregon-grape / parsley fern	ICHdw/02	Red	ABFD

Appendix F - Endangered and Vulnerable Fauna

Endangered and vulnerable animal species within the Kootenay Lake and Arrow Boundary Forest Districts. Shading indicates confirmation within Kokanee Glacier Provincial Park. No formal inventories have yet to be conducted.

T		1	1	D0
English Name	G Rank	Provincial	COSEWIC	BC Status
	G4T10	S1		RED
	G5			BLUE
				RED
Vivid Dancer	G5	S2		RED
Great Blue heron, herodias subspecies	G5T5	S3B,S4N		BLUE
Short-eared Owl	G5	S3B,S2N	SC (1994)	BLUE
American Bittern	G4	S3B,SZN		BLUE
Canyon Wren	G5	S3	NAR (1992)	BLUE
Painted Turtle	G5	S3S4		BLUE
Racer	G5	S3S4		BLUE
Townsend's Big-eared Bat	G4	S2S3		BLUE
Rocky Mountain Sculpin	G5TNR	S2S3		BLUE
Shorthead Sculpin	G5	S2S3	T (MAY 2001)	BLUE
Bobolink	G5	S3B,SZN		BLUE
Gillette's Checkerspot	G2G3	S2S3		BLUE
Eastern Tailed Blue	G5	S3		BLUE
Prairie Falcon	G5	S2B,SZN	NAR (1996)	RED
Wolverine, luscus subspecies	G4T4	S3	SC (2003)	BLUE
Fisher	G5	S2		RED
Lewis's Woodpecker	G4	S3B,SZN	SC (NOV 2001)	BLUE
Cutthroat Trout, lewisi subspecies	G4T3	S3SE		BLUE
Western Screech-Owl, macfarlanei subspecies	G5T4	S1	E (MAY 2002)	RED
Bighorn Sheep	G4	S2S3	,	BLUE
	G5T3T4	S3S4		BLUE
Coeur d'Alene Salamander	G3G4	S3	SC (NOV 2001)	BLUE
Checkered Skipper	G5	S3	,	BLUE
Northern Leopard Frog	G5	S1	E (MAY 2000)	RED
Caribou (southern population)	G5T2Q	S1	T (MAY 2000)	RED
American Avocet	G5	S2B,SZN		RED
Umatilla Dace	G4	S2	SC (1988)	RED
Bull Trout	G3	S3	,	BLUE
Williamson's Sapsucker, thyroideus subspecies				BLUE
'			DD (1996)	RED
Red-tailed Chipmunk, simulans			(.000)	BLUE
'			F(MAY 2000)	RED
Northern Pocket Gopher, segregatus			_(\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	RED
Grizzly Bear	G4	S3	SC (MAY 2002)	BLUE
	White Sturgeon (Kootenay River population) White-throated Swift Western Grebe Vivid Dancer Great Blue heron, herodias subspecies Short-eared Owl American Bittern Canyon Wren Painted Turtle Racer Townsend's Big-eared Bat Rocky Mountain Sculpin Shorthead Sculpin Bobolink Gillette's Checkerspot Eastern Tailed Blue Prairie Falcon Wolverine, luscus subspecies Fisher Lewis's Woodpecker Cutthroat Trout, lewisi subspecies Western Screech-Owl, macfarlanei subspecies Bighorn Sheep Clodius Appolo, altaurus subspecies Coeur d'Alene Salamander Checkered Skipper Northern Leopard Frog Caribou (southern population) American Avocet Umatilla Dace Bull Trout Williamson's Sapsucker, thyroideus subspecies Forster's Tern Red-tailed Chipmunk, simulans subspecies Badger Northern Pocket Gopher, segregatus subspecies	White Sturgeon (Kootenay River population) White-throated Swift G5 Western Grebe Vivid Dancer G65 Great Blue heron, herodias subspecies Short-eared Owl American Bittern G4 Canyon Wren G5 Painted Turtle G65 Racer G65 Townsend's Big-eared Bat Rocky Mountain Sculpin Shorthead Sculpin G5 Gillette's Checkerspot Eastern Tailed Blue G6 Prairie Falcon G7 Wolverine, luscus subspecies G4T4 Fisher G5 Lewis's Woodpecker G4 Cutthroat Trout, lewisi subspecies G4T3 Western Screech-Owl, macfarlanei subspecies G5T4 Bighorn Sheep Clodius Appolo, altaurus subspecies G5 Caribou (southern population) G5 G6TU Morthern Leopard Frog G6 Caribou (southern population) G5 Red-tailed Chipmunk, simulans subspecies G5 G6T4T5 Badger Northern Pocket Gopher, segregatus subspecies G5T4C	White Sturgeon (Kootenay River population) White-throated Swift Western Grebe G5 S384B,SZN Wivid Dancer G6 S2 Great Blue heron, herodias subspecies S575 S38,S4N Short-eared Owl G5 S38,SZN American Bittern G4 S38,SZN Canyon Wren G5 S38 Painted Turtle G5 S384 Racer G6 S384 Racer G6 S384 Rocky Mountain Sculpin G5 S38,SZN Shorthead Sculpin G5 S38,SZN Gillette's Checkerspot G2G3 Eastern Tailed Blue G5 S38,SZN G44 S38,SZN Fisher G5 S38,SZN G55 S38,SZN G65 S38,SZN G7 G7 G8 G7 G8	White Sturgeon (Kootenay River population) G4T1Q S1 White-throated Swift G5 \$3\$4B,\$ZN Western Grebe G5 \$1B,\$S3N Vivid Dancer G5 \$2 Great Blue heron, herodias subspecies G5T5 \$3B,\$S4N Short-eared Owl G5 \$3B,\$ZN American Bittern G4 \$3B,\$ZN Canyon Wren G5 \$3\$ Painted Turtle G5 \$3\$4 Racer G5 \$3\$4 Townsend's Big-eared Bat G4 \$2\$3 Rocky Mountain Sculpin G5TNR \$2\$3 Shorthead Sculpin G5 \$38,\$ZN Bobolink G5 \$38,\$ZN Gillette's Checkerspot G2G3 \$2\$3 Eastern Tailed Blue G5 \$3 Prairie Falcon G5 \$3 Wolverine, luscus subspecies G4T4 \$3 Fisher G5 \$2 Lewis's Woodpecker G4 \$38,\$ZN \$C (NOV 2001) Cutthroat Trout, lewis

Appendix G - Summary of Public Comments

Draft Kokanee Glacier Provincial Park Management Plan

Introduction

A series of public open houses were held in West Kootenay communities including Nelson, New Denver and Kaslo at the end of March 2004 to review the draft Management Plan for Kokanee Glacier Provincial Park. About 50 people attended and about 25 written submissions were received. The submissions varied from simple hand written notes to multipage reports. This summary is intended to provide an indication of what people said about the draft management plan, provide some response from BC Parks on those ideas, and to indicate how the various parts of the draft management plan will be revised or retained.

Some of the questions or comments may be answered in sections other than the ones they have been recorded in. Also some questions or comments were unclear and have not been addressed. The numerous editorial comments are also not included but the changes were made to the plan.

Issue: Vision Statement

Public Comments:

- Recreation has dominated past management decisions. Preservation and ecological integrity should now take priority over recreation.
- The February 2004 Kokanee Glacier Provincial Park Draft Management Plan strategic direction and objectives are generally excellent, and follow from many years of planning and public consultation.
- The primary focus of the Kokanee Glacier Park must be the protection of wildlife habitat from degradation. Human activity should not have a negative impact on the animals inhabiting the park.
- The vision seems OK in theory but you would need more park managers rangers with a good knowledge of plant and animal life.
- This vision will exacerbate problems for wildlife. New resorts such as Baldface will and are causing more Grizzly Bear problems in the park.
- Animals cannot survive in island parks.
- Agree strong commitment to sustainability and wildlife protection.

Commentary:

While there is a stream of agreement among these comments with respect to the importance of values such as wildlife being included in the overall management vision for the park there is range of views of how this is expressed. Some comments clearly support the vision of the draft plan in general while others have reiterated specific components of the draft vision including the importance of wildlife movement beyond park boundaries (island parks) and maintaining wildlife values (no negative impact on wildlife).

Concerns about exacerbating problems with wildlife are considered in the management strategies by proposing assessment and monitoring of emerging issues. Roofed

accommodation in the park is not being expanded beyond existing capacity limitations of existing (non-profit) facilities.

Plan Recommendations:

The management vision for the park in the draft management plan will be retained unaltered.

Issue: Park Zoning

Public Comments:

- The new zoning and access plans are an improvement over the 1990 Master Plan and should function to protect the wilderness character of the park.
- Agree
- Suitable yes, but I would like to see maintained trails into Blue Grouse Basin and the Mt. Chipman area.
- The zoning of the park seems to be well laid out

Commentary:

These comments support the draft plan approach.

Plan Recommendation:

The management plan will retain the zoning unchanged. Comments on trail maintenance will be addressed in the Outdoor Recreation Opportunities Section.

Issue: Vegetation Management

Public Comments:

• A proper impact assessment should be undertaken to ensure we have not already gone too far in development and current levels of use in the core area.

Commentary:

In order to assess impacts, additional data and studies need to be done. These concerns are proposed to be addressed through several related initiatives including updating the wildlife inventory, conducting Grizzly Bear movement and habitat suitability studies, monitoring impacts by people and developing a carrying capacity model for core use areas.

Plan Recommendation:

These proposed recommendations are retained in the management plan.

Issue: Fish/Wildlife Management

Public Comments:

- In view of the fact that you identify Kokanee as "providing essential wildlife connectivity in the West Kootenay" (p.8) it is contradictory and misleading to state that conservation goals of the park can be met by <u>designating high recreation use in the "core"</u> where it is well known that the greatest wildlife corridor values occur.
- A study is needed to determine specific animal pathways through the core so that a better, more intensive zoning approach and separation of high human use and animal travel routes might be achieved.

- Solutions that may have to be looked at to restore ecological connectivity may be to have some of the identified key animal pathways designated as off-limits to human use during key seasons of travel, day-time travel by hikers only, and an obvious one – restrictions on visitor numbers (permit system) to acceptable wildlife disturbance threshold levels.
- p. 36. Yes, by all means manage wildlife values as a higher priority over recreational opportunities but do carry this out and not ignore that other programs fostered by BC Parks are impeding the park's value as a wildlife reserve.
- Missing Grizzly Bear DNA studies on growing problem with connectivity and their increasing isolation
- I think your agency is behind the times on this issue and it should no longer be ignored in places like Kokanee.
- BC Parks should undertake a Grizzly Bear movement/habitat suitability project encompassing the entire park. Studies for Wolverines and Mountain Goats are also needed.
- Immediately do a two year study in an Environmental Impact Assessment (EIA) of Grizzly Bear, Wolverine and goat movements and habitats in KGP as suggested in the mast plan. Subject any further development or commercial use to a full EIA with open process.
- The blue-listed Bull Trout in Keen Creek may be impacted by the hydro-electric development on that creek which serves the new lodge.
- The Kokanee Central Uplands should be zoned as a critical wildlife linkage area.
- The animals and birds and fish need to be protected in Kokanee Park.
- Maybe areas frequented by bears could be "off limits" to tourists, accept in winter when cross-country skiers might use trails during the time that bears are hibernating.

Commentary:

With the exception of the first comment which points out an apparent contradiction and a few after, the majority of these comments support the approach proposed in the draft plan including Grizzly Bear movement studies, establishing limits on public use (may include numbers and seasons) to avoid conflicts and to maintain wildlife linkages. Previous research on Grizzly Bear connectivity and public use will be considered in the studies proposed by the draft plan.

The first comment correctly points out an error in referring to high recreation use core area. The only area of the park that reflects this description is Gibson Lake which is an easily accessible high use frontcountry area. At the moment use levels along trails emanating from Kaslo Lake (while higher than what one would normally expect in a wilderness experience as with most of the park) are lower than at Gibson Lake and subject to future changes based on the results of proposed studies related to setting limits on public use.

In terms of the impact of the mini-hydro plant on Bull Trout in Keen Creek, the fish distribution data indicates that this species occurs at the lower elevations and are therefore unlikely to be affected by the plant.

Plan Recommendation:

The plan will be revised to correct the contradiction in reference to the high use core area.

Issue: Cultural Values Conservation

Public Comments:

• p. 15, p. 36 Need to mention Sinixt FN.

Commentary:

Some references to First Nations, (Vision Statement on Page 15) are generic, referring to all aboriginal people. Other references are specific as on page 36 where the Sinixts are specifically mentioned.

Plan Recommendation:

No changes are contemplated

Issues: Access Management Proposals

Public Comments:

- I disagree with "Permitting helicopter access to key locations of the park on a seasonal basis". There are lots of other areas of low quality wildlife habitat outside of the park for helicopters to go.
- Does not support any summer helicopter use in or over the park. NO expansion of helilands or over flights.
- Favours good access for all our communities. However, this can still be achieved while closing the Keen Creek Road as proposed by BC Parks.
- Continue the ban on motorized access. This includes ATVs, snowmobiles and motorbikes.
- Restrictions on frequency, duration, altitude and flight path of helicopters. Public aircraft flights should have 1,000 metre ceiling restrictions and park maintenance flights should be minimized with no flights in September (during the berry season).
- By far, the largest mountain rescue team in the west Kootenays is located in Kaslo and a response to a call for help will be even more delayed if the team would need to travel to Kokanee Creek road and then make the hike that is twice as long as the Helen Dean or Joker trails.
- This proposal also harms Kaslo's tourism as this trailhead was once a thriving tourist draw to the Kaslo economy. All of the money spent in the last number of years has gone to benefit the Nelson tourist sector at Kaslo's expense.
- I do not support further use of helicopters to attract tourists to Kokanee Park even if it is as a "revenue generator". Helicopters can access several other high country areas inaccessible to low impact users. Limit helicopter use to accessing the lodge for skiing.
- Ban further helicopter landings and over flights for summer sightseeing and all helicopter use in or over the park, other than for access to the lodge for skiing.
- Deactivate two of the six access roads. Four would serve Kokanee Glacier Park as well
 and leave room for Grizzly Bears to have seclusion from human beings. Continue the ban
 on off-road vehicles and hire rangers to patrol and stop illegal entries.
- Say NO to further helicopter landings, no more over flights for summer sightseeing. VWS doe not support ANY helicopter use in or over the park, other than for access to the lodge for skiing.

- Six roads provide the major access to the park. Five would serve just as well and leave room for Grizzly Bears to have seclusion from humans.
- People come to see the pristine land and they will destroy it while tramping over it. Helicopters for transport only add injury to this and should only be used for rescue emergencies. They frighten the wild animals to the point of shocking some to death.
- No further landings, other than for access to the lodge for skiing and no more over flights for summer sightseeing.
- Lessen the road access from six to five to make more room for Grizzly Bears.
- The threats to any wilderness by helicopter use are very great. I would ban further use of helicopters in Kokanee Glacier Park, except for skiing access to the lodge in the winter.
- Helicopters significantly detract from the wilderness experience in Kokanee. Helicopters
 use does make some sense in the winter for safety from avalanches. However, their use
 should be severely restricted in the other three seasons to reduce stress on the wildlife
 using the park.
- The existing ban on off-road vehicles must continue and also needs to be enforced.
- No all terrain vehicles or motorized dirt bikes are allowed.
- Helicopter access is limited to the lodge for skiing only. No other lands in the park. No more sight-seeing flights.
- Assumption made that use of skidoo on Forest Access roads will not be denied as a result of any new planning document.
- I would not like to see helicopters taking people into and out of the park or sight-seeing above the park area.
- People should enter on foot or by car or truck.
- I agree with the management issued and the suggested strategies.
- The current level of helicopter use is acceptable.
- I agree with the plan to halt/stop motorized access up Keen Creek. ATV, motorbike and snowmobile riders have huge tracts of public lane (i.e. crown land) already at their disposal.
- I applaud your decision to ban all motorized traffic within the park.
- I would welcome a return to park access via Keen, but would trade off that for a trail into the Mt. Chipman area.
- Keep the road open so business and visitors from Kaslo can take advantage of one of the best and easiest routes into the park.
- Before allowing air access (and possibly heli-hiking?) into Crazy Jane Lake or Caribou Ridge it must be clear the no affect will occur to goat populations near Crazy Jane or Grizzly populations near Caribou Ridge. As well as any potential trail building into Needles Creek to Caribou Ridge.
- Ensure road issues between the three ministries involved are discussed and carefully considered into key park areas (i.e. Woodbury, Silver Spray).
- I do not think that float planes should be landing on the lakes and brining fishermen into this park. Perhaps hikers could walk to lakes and do some fishing.

Commentary:

These comments reflect the three main issues with respect to access; vehicle access, off-road motorized vehicle access and helicopter access.

The central issue around vehicle access involves the Keen Creek Road. Understandably many people want this road re-opened while others don't. However this issue is more complex than simply having the slides cleaned-up or leaving them alone. The long-term viability, both economically and environmentally, of the road needs to be assessed. This will require further investigation, road surveying and discussion with stakeholders and other agencies. Closely associated with this issue is the need to address the long-term distribution and levels of recreational use in the park. For example if studies proposed in the draft plan show that the main backcountry areas of the park have reached capacity and other opportunities such as the Mount Chipman are determined to be feasible, then the access along Keen Creek should be focused on these new opportunities rather than to areas of the park already well used and where long term access may be problematic.

Also linked to the resolution of the Keen Creek road access is the future of motorized access for off road vehicles. Some comments on motorized uses suggest a misunderstanding of existing activities and proposed strategies. Motorized uses for off-road vehicles such as ATVs and snowmobiles were limited in the past to the Keen Creek Road. This is the only area where motorized recreation will be considered in the future however it is subject to the decision on the long term future of the Keen Creek Road.

In terms of helicopter access there seems to be very little support for allowing this activity other than what is needed to bring skiers into the Kokanee Glacier Cabin in the winter. By far the greatest impact on people and likely wildlife are the frequent summer sightseeing tours. Unfortunately this is outside provincial jurisdiction and from past experience federal aviation authorities are reluctant to address this. While landings in the park are under provincial control the one permit that authorizes this activity is away from use areas and infrequently used.

Plan Recommendations:

The proposed strategies to address the Keen Creek Road are retained and will be identified as a high priority to resolve as soon as practical. An interim strategy will be added clarifying the continuation of the Keen Creek road surface for off-road vehicle, snowmobile and bicycle use until a final decision is rendered.

The plan recommendations for helicopters will be retained but with an added component of working with the sightseeing helicopter company's to voluntarily adjust their operating procedures to avoid impacting people and wildlife in the main backcountry areas.

Issue: Hiking/Backpacking

Public Comments:

- So I do not agree with promoting the Kokanee Glacier Lodge-type infrastructure facility (not a "cabin") as a year-round recreation destination since you have no idea as to how this and the increasing visitor use is impacting survival of park wildlife.
- The park now has a major tourism lodge, two cabins, an interpretive center and a hydroelectric development. NO MORE development, no expansions of existing development.
- Protection of water quality, quantity and timing of flow should be imperative. NO further hydro development in the park.

- Any development or activity that might have impacts on wildlife or visitor experience should have an Environmental Impact Assessment with open public process.
- The existing development and helicopter permits were allowed without conducting an EIA.
- The decision to build the Kokanee Glacier Cabin made without public input
- No more building in the park. The most recent "Cabin" is a disgrace. It is totally out of place and has violated the previous beauty of Kaslo Lake.
- There is emergency need to do studies to determine the ecological carrying capacity for the core of the park. Ecological indicators should be used to limit the number of visitors as well as commercial use.
- A strict cap on the use of Kokanee Glacier Lodge until carrying capacity of the core area of the park has been set.
- The two-year study of bear and wildlife travel mechanisms should address connectivity, appropriate visitor levels, the requirement for an ecological integrity evaluation of the park, an environmental impact study of the proposed Slocan Chief 20-bed alpine facility, and public safety issues related to bears.
- A review of seasons and areas of greatest wildlife use and a review of closing the lodge during these periods. This might include closing during the late summer-fall berry season when Grizzly Bears are traveling through the core area to access major feeding habitats.
- There should be an immediate environmental impact assessment on existing development commercial services and recreational activity in the Park to determine whether the park is currently stressed and also before allowing any expansion of these activities. Note that the Kokanee Glacier Cabin went ahead without a full environmental impact assessment. So why was the new cabin built?
- Immediately do an Environmental Impact Assessment on the lodge development, commercial services and recreational activity in KGP.
- Determine carrying capacity of the core of KGP and limit use to that level. Limit the number of people allowed in the new lodge to the same number that used the old Slocan Chief Cabin.
- Prevent further structural development that will degrade the natural values and ecological integrity of Kokanee Glacier Park.
- Limit the number of people allowed in the Kokanee Glacier lodge to the same number that used the old Slocan Chief cabin.
- Say NO to further structural development that will degrade the natural values and ecological integrity of the park.
- Determine the ecological carrying capacity of the core of the park and limit use to that level.
- Very dismayed to find the restoration of Kokanee cabin is becoming a fancy lodge with hot showers, flush toilets and the dam to provide power to entice tourists. No environmental impact study has been done and the damage to come is frightening.
- An immediate Environmental Impact Assessment on existing development, commercial services and recreational activity in the park.
- Limit the number of people allowed in the Kokanee Glacier Lodge to the same number that used the old Slocan Chief cabin.
- No more structural development that will degrade the natural values and ecological integrity of the park.

- Determine the ecological carrying capacity of the core of the park and limit use to that level.
- Any proposal for development, any commercial move must receive a full Environmental Impact Assessment (open public process).
- I hope that motorized vehicles (all-terrain vehicles, motorcycles, snowmobiles) will not be allowed on the park trails. Too much noise will cause animals to move out of the park.
- If there are too many hikers coming into the park there would have to be some way of controlling numbers.
- It would be ideal to clear the Blue Grouse Basin trail (it is covered with avalanche debris) to take some stress off the park core. Similarly, keep up Lemon and Nilsik Creeks trails open would also help.
- I think re-opening the Woodbury trail should be a priority.
- Allow use of Woodbury trail when it is deemed safe and passable.
- Re-look at the possibility of keeping Sapphire Lakes site open
- Ensure proper wildlife studies are done before creating access to Caribou, Mt. Chipman area.
- Priority should be given to re-opening Woodbury Trail.

Commentary:

By far most comments are concerned with the operation, use and impacts of the Kokanee Glacier Cabin. The cabin is a result of the decisions made in the previous management plan in 1990 to replace the Slocan Chief cabin. The commercial aspect of the facility is somewhat misunderstood. Virtually all overnight public cabins in provincial parks have a fee whether it is collected by government staff or a contractor. Unlike commercial facilities, the Kokanee Glacier Cabin is managed on a not for profit basis by a non-profit club. It was built with donated funds with the help of many volunteers and support of the local community. The project had a very high profile and under went extensive public consultation. While the cabin is unique in terms of the process of how it was built, and in the high quality and technology used in the design it is intended to be used by all visitors and managed like other BC Parks cabins.

It is natural that one would expect that such a significant facility would create significantly more impacts but the capacity of the facility is very limited. When considering the capacity for overnight use of the formerly used Slocan Chief cabin and the capacity of the Kalmia Lake campsite which has been closed and will undergo restoration, the overnight capacity of the Kokanee Glacier Cabin is about the same as all these put together. There is however a significant increase in day users. This may simply be the result of the newness and publicity surrounding the new cabin in which case uses levels could normalize after a period of time or it could be a significant increased use trend. Given the latter, the draft plan has initiatives for considering limiting public use levels to minimize impact on natural values and avoid compromising on the park experience.

In terms of future facilities, no new structures are being proposed in the management plan. Note the infrastructure reference in the following section under commercial recreation. The only potential new facilities in the park may be trails in the Mount Chipman area following

feasibility and impact assessment and as a result of the carrying capacity studies for the core use areas of the park and the Keen Creek Road investigations.

There are a number of suggestions to open up and maintain old trails such as Lemon Creek, Blue Grouse and Nilsik. While these suggestions may indeed take pressure off the core use area we intend to wait until the proposed studies on wildlife movement and carrying capacity are done to guide future trail enhancements.

Plan Recommendations:

The operation of the Kokanee Glacier Cabin will be clarified in the draft plan with respect to the limited commercial nature of the facility. The plan will also designate all cabins as self serve facilities and preclude the offering of meals, house keeping and supplied bedding normally expected from commercial facilities.

Issue: Backcountry Skiing

Public Comments:

- I would not like to see skiers brought into the park by helicopters
- Some cross-country skiing should be permitted but overuse of the trails should be discouraged.
- Guests are not permitted to fly-in and ski out because of avalanche hazards on the route
 out of the park. We strongly object to this restriction as the ski out down Kokanee Creek
 can be one of the highlights. Responsibility rests with the park visitor if the conditions
 are unsuitable or unsafe on this route.

Commentary:

Backcountry skiing has been a traditional use in the park for many decades. The use of helicopters for winter access is based on Coroner report recommendations resulting from various investigations of avalanche deaths in the park.

As skiing use is limited by the capacity of accommodations and use is dispersed there is little risk of overuse of trails.

Plan Recommendations:

Strategies in the draft plan are unchanged

Issue: Commercial Recreation

Public Comments:

- No new commercial use permits in the park (currently there are seven 5-year commercial use permits in the park representing the full range of permissible uses).
- No further permits for use of the lodge. Multiple commercial permits based on the lodge will increasingly push non-commercial recreationists out of the picture for the use of the lodge.
- I hope that commercial use will be limited in order to maintain the ecological values of the park. Like many other British Columbians, I would really like the opportunity (or to keep to opportunity) to experience "nature" not yet modified by commercial development.

- The government has cut funding in all matters under its jurisdiction. It seems to have a desire to privatize everything which makes many things too expensive for poor people.
- The Provincial Government is making a big show of opening up the Province to commercial recreation. We cannot compete with unfair competition like the Kokanee Glacier Cabin and cannot develop if we are being continually swamped with new operations faster than the market can grow.
- Refuse any more commercial permits than the seven Kokanee Glacier Park now has.
- The private sector should not be in control of parks.
- Environmental people have worked to protect the parks and now the rangers have been withdrawn due to \$ problems. Who is paying to look after this lodge? Golden Arches and Tim Hortons?
- No further commercial permits.
- No commercial permits. The park's seven is enough.
- Further hydro development and further commercial permits should be ruled out.
- No additional commercial licenses/tenures are issued.
- I do not like the idea of commercial tourism in parks or privatization of parks.
- We worked hard to build structures that would replace existing public accommodation, not create commercial fully services luxury hotels in Kokanee Glacier Provincial Park.
- It isn't right that anyone wanting to use the cabin should have to pay a cost for belonging to an organization
- Parks should not be commercialized. Vegetation and animal habitat could be threatened by allowing "big business" to attract too many visitors.
- I hope that the use of new the lodge will be controlled (could visitors be required to preregister).
- No more lodges will be built in the park. Effluent from flush toilets will pollute streams.
- Eco-tourism should be self-propelled.
- Allow present permit holders of commercial operations seniority when looking at future sustainability and impact issues and the ability to discuss these issues with the park service annually.
- I commend you for your position of no more commercial facility construction.
- Work with commercial operators on setting visitor capacities.
- A percentage formula between commercial and non-commercial recreation users, as well as ACC versus general public, for the use of all cabins and shelters in the park should be set, to guarantee adequate access to non-commercial users.
- "It was never the intent of the many volunteers and donations that built Silver Spray
 Cabin and the new Kokanee Glacier Chalet to create expensive private lodges that would
 exclude "fairness of access to the park".

Commentary:

Some of the commentary from previous sections also applies to this one. As discussed previously, the fee for overnight services in the park are offered on a not for profit basis. Although supplies and services are purchased from profit seeking companies the intent of the park operation is to provide a public service at a reasonable cost.

Many comments have suggested that commercial tenures be limited to what currently exists however the rationale for restricting commercial uses in most cases is based on

assumptions. To ensure park values are protected, monitoring and assessment of human use impacts (whether commercial or not) is included in the draft plan.

A ban on any further commercial activity is not included in the plan, however requirements for future proposals to demonstrate low impact and ecological sustainability are included. The draft plan further limits any future proposals to those that do not require any infrastructure to be built in the park. With tourism associated economic development being foundational principles since the first provincial parks were established, provincial parks continue to be important contributors to the provincial economy. BC Parks are managed under a dual mandate of recreation and conservation. Commercial services are recognized as a tool for providing a diversity of recreational opportunities, but, as with all human uses, they are limited within the confines of ecological integrity and sustainability maxims.

Plan Recommendations:

No changes to existing strategies proposed. Although the issue of fees is outside the scope of the management plan the concerns with respect to the different pricing for Alpine Club of Canada (ACC) members have been noted. BC Parks staff will be working with the ACC to change this to ensure fair and equal application of fees.

Issue: Hunting/Fishing

Public Comments:

- It is unacceptable that in British Columbia there is still a hunting season on blue-listed species such as Wolverine and Grizzly Bears. Globally, a park that allows hunting is not considered a true protected area.
- Ban the hunting of blue-listed species.
- NO hunting of blue-listed species.
- Hunting, especially of threatened/endangered species should not be permitted in Kokanee or any other park for that matter.
- I don't like to see any hunting in parks. Some fishing could be permitted.
- Phase out hunting all together.
- I urge you prohibit all hunting in the park.
- I urge you to prohibit all fishing in the park.
- I would like to see an end to hunting in the park.
- Hunting should not be allowed in the park to protect low populations of goat and bear.
- RE-look at goat hunting in the park.
- As it is forbid bear or any predator hunting in the park for the future.

Commentary:

While most people are strongly opposed to the hunting of listed species, the protection and management of a given species for the most part is a much larger issue than a single park can address. Management of species such as Grizzly Bears is addressed through a province wide strategy. It should be noted that there is very little interest in harvesting these species.

Plan Recommendations:

The hunting of Mountain Goats will be added to the annual review of hunting harvest levels.

Issue: Park Staffing

Public Comments:

- The park needs more rangers to patrol the park and stop illegal entries.
- It will be nice to see more resources than just binary print put towards these goals. However, to educate park users about conservation and safety more parks staff is needed, not less as is currently the trend.
- More rangers are desperately needed here and in the other wilderness parks of B.C. if we are to maintain the ban on off-road vehicles.

Commentary:

Resources and staffing levels of the parks operation is outside the mandate of park management plans but is an issue that is well recognized.

Issue: Public Information

Public Comment:

 A new park pamphlet needs to be published and a centralized information center, such as the Visitor Center at Kokanee Creek or at least an office in Nelson with well-informed staff that provide answers to enquiries must be re-instated.

Commentary:

While the provision of public information has shifted in the last few years to a greater reliance on the Internet, park information will continue to be available from the Nelson office, the Kokanee Creek Park visitor centre as well from tourism information centres across the province.