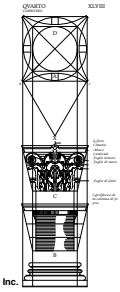
KICKING HORSE
MOUNTAIN RESORT

# Master Plan

March 31, 2009



Pheidias Project Managment Corporation + **Oberti Resort Design**
A Division of
Oberto Oberti Architecture and Urban Design Inc.

# Kicking Horse Mountain Resort

# Master Plan

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[1] Included as a reference only.

## LIST OF ABBREVIATIONS

AAC ..... Allowable Annual Cut
ASRG..... All Season Resort Guidelines
ATV ..... All Terrain Vehicle
BC..... British Columbia
BRC ..... Balanced Resort Capacity
CASP ..... Commercial Alpine Ski Policy
CBT..... Columbia Basin Trust
CCC ..... Comfortable Carrying Capacity
CRTC ..... Canadian Radio-television and Telecommunications Commission
CSRD..... Columbia Shuswap Regional District
DEM..... Digital Elevation Model
DRAA..... Design Review and Approval Authority
EA Act ..... Environmental Assessment Act
EAO ..... Environmental Assessment Office
KHMR ..... Kicking Horse Mountain Resort
KKTC ..... Ktunaxa Kinbasket Tribal Council
MoF..... Ministry of Forests
MoT..... Ministry of Transportation
N/A..... Not Applicable
OCP ..... Official Community Plan
p/h..... persons per hour
SAOT ..... Skiers At One Time
SF ..... Single Family
SNTC ..... Shuswap Nation Tribal Council
TLC ..... Land Conservancy of British Columbia
TSA..... Timber Supply Area
WMA ..... Wildlife Management Area

# 1. INTRODUCTION

This Master Plan proposes the expansion of the existing ski resort at Kicking Horse Mountain Resort (KHMR) into a year-round destination resort including a signature golf course, a densification of the resort base and major improvements to the ski area.

The purpose of the expansion is to create a true destination resort and to transform the visitor demographics from a majority of day visitors, to one that would see a greater proportion of longer-term visitors. The success that KHMR has enjoyed in its initial years has shown that it is capable of attracting long-term visitors, and with appropriate planning the resort is now positioning itself to become a true destination resort.

***EXHIBIT 1.1.: Golden Eagle Express Terminal and Eagle's Eye Restaurant***

The expansion is centred on an expanded ski area that will include a total of 14 ski lifts at build-out. Additionally, a number of new facilities, activities and features such as a signature golf course will help transform the resort into a true year-round attraction. The base area development will include 18,080 visitor bed units and an additional 2,009 (10%) employee housing bed units for a total of 20,089 bed

units built over four phases.

KHMR is located in the Purcell Mountain Range in eastern British Columbia in the Columbia Shuswap Regional District (CSRD). It is situated on the West Bench near the Town of Golden, which is located approximately 5 kilometers to the east as the crow flies, and approximately 15 kilometers on the existing two lane paved road. There is a single access road to the resort, and it originates from within the town of Golden. By automobile, the site is approximately three hours (260 kilometers) west of Calgary, Alberta, and four hours (358 kilometers) east of Kamloops, B.C.

The current ski area comprises 1,113 hectares (2,750 acres), although at build-out the current approved Master Plan envisions a Controlled Recreation Area (CRA) of approximately 1,694 hectares (4,186 acres). The Provincial Crown land is held by Kicking Horse Mountain Resort Limited Partnership under a Master Development Agreement and a License of Occupation from the Government of B.C. The Crown land required for the creation of the bed base according to the Master Plan may be acquired by KHMR , while the rest remains as Crown land under license, except for the portion required for operation of the ski area, such as for lifts, daylodges and parking, which is leased by the Crown.

The base of the current ski resort area is at approximately 1,250 meters (4,150 ft.). The lowest lift is planned at an elevation of 1,190 meters and the top elevation of the highest lift (lift #2 of the 1999 Master Plan – “Stairway to Heaven”) reaches 2,450 meters, *the highest lift in B.C*. The resort currently operates 1 gondola, 3 chair lifts and 1 magic carpet.

***EXHIBIT 1.2.: Golden Eagle Express Gondola in Summer***

KHMR’s ski season runs from mid-December to early April. Its skier visits have been growing steadily since its inception in 2000-2001, growing from 80,000 in the opening season to a projected 140,000 skier visits in the 2007-2008 ski season. By way of comparison, the original Whitetooth ski area had an average of 20,000 annual skier visits.

This translates to approximately 1,000 skier visits on an average day, although peak day attendance has come near 3,000 skiers per day. KHMR is the primary attraction of the West Bench and of Golden during the winter months and is now competing for National Parks tourist traffic during the summer months.

Currently there are approximately 1,300 beds available on the mountain. Existing buildings and facilities are as follows:

- Eagle’s Eye Restaurant (7,700 sq. ft.);
- New Daylodge (8,600 sq. ft.);
- Glacier Lodge & Mountaineer Lodge buildings in the Plaza;
- Palliser Lodge building;

- Whispering Pines townhomes – 7 buildings, 24 units;
- Selkirk Resort townhomes – 6 buildings, 18 units;
- Cache Close bed and breakfast subdivison – 3 B&Bs;
- Purcell Woods subdivision – 29 lots;
- Golden Ave subdivision – 15 lots;
- Columbia Valley View subdivision – 19 lots;
- Dogtooth subdivision – 16 lots;
- KHMR admin building;
- Maintenance building;
- Child care facility;
- Water Reservoir and distribution facility;
- Sewage Treatment facility;
- Propane distribution facility;
- Operations building;
- Grizzly bear habitat, and
- Various types of commercial under condo/hotel units facing the Plaza.

The resort is designed with a high density central resort village theme. The design consists of clustered hotel development around a central public plaza. The central part of the resort development will encompass approximately 60 acres. Hotel building heights may be three to six stories. The resort's commercial occupancies, which will typically support tourist/visitors needs, will be located on the ground floor of hotels. Smaller condo development building clusters will be located outside of and away from the central village. Similarly, ski chalet subdivisions are to be located apart from the central village.

KHMR is developing and marketing a year round destination resort facility. In addition to downhill skiing, KHMR offers:

- Year round dining at the Eagle's Eye restaurant located at the top of the mountain-- accessible only by gondola;
- Sight seeing;
- Hiking;
- Mountain biking;
- Snowmobiling;
- Nordic skiing;
- Outdoor Ice skating;
- Tubing;
- Grizzly bear sanctuary.

***TABLE 1.1.: Existing KHMR Ski Area Summary***

| | |
|---|---|
| Vertical: | 1,260 meters (4,133 feet) |
| Top Elevation: | 2,450 meters (8,033 feet) |
| Bottom Elevation: | 1,190 metres (3,900 feet) |
| Total Skiable Area: | 2,750 acres |
| Total Number of Ski Runs: | 106 |

| | |
|---|---|
| Run Type Breakdown: | 20% Beginner<br>20% Intermediate<br>45% Advanced<br>15% Expert |
| Inbound chutes: | 70 |
| Lifts (Winter and Summer operation): | Golden Eagle Express<br>8-Passenger Gondola<br>Length: 3,413 metres (11, 266 feet)<br>Ride Time -12 mins. |
| | Catamount chiair<br>4-passenger fixed grip |
| Lifts (Winter only): | Stairway to Heaven chair<br>4-passenger fixed grip |
| | Pioneer chair<br>2-Passenger fixed grip |
| | Pony Express magic carpet |

## 1.1. PROJECT HISTORY AND ORIGINS

### 1.1.1. Project Origins

Kicking Horse Mountain Resort was born as an expansion of Whitetooth, a community ski hill near Golden, British Columbia, operated by the Whitetooth Ski Society and owned by the Columbia Shuswap Regional District (CSRD). Whitetooth was initiated in 1986 following a 1981 study by Ted Farwell.

***EXHIBIT 1.3.: Skiing at Whitetooth in 1998***

In 1995, Oberto Oberti and Alan Artibise attended a planning seminar in Nelson, B.C., and happened to be sitting next to the Mayor of Golden, Fred Demmon. The Mayor invited Oberto Oberti and Alan Artibise to come and plan a mountain resort to expand the local ski hill. Oberto Oberti explained that his company would happily create a plan, but he did not have a client of his on the horizon that would be able to complete such a project.

However, about a year later, one of Mr. Oberti's clients, Ballast Nedam, lost the opportunity to redevelop the Creekside area at Whistler, due to the acquisition of the vendor, Whistler Mountain Ski Corporation, by Intrawest, the developer of Blackcomb. Oberto Oberti

remembered the Mayor of Golden and spoke to Ballast Nedam of the opportunities of the Columbia Valley and of Golden, a gateway to the National Parks, as an alternative area for a significant tourism project. This generated a visit to Golden by Oberto Oberti at the end of 1996. He spoke to the economic development officer (Lee Malleau), to the new Mayor (Norm McDonald) and Council, to the local Area Director of the CSRD (Duane Crandall), to the local MLA (Jim Doyle) and to the President of the Whitetooth Ski Society (Flec Demmon). There was an overwhelmingly favourable reception to the thought of creating a visionary plan placing a gondola to the top of the mountain on the West Bench to create a major attraction and to give a vision to Ballast Nedam to initiate a new destination resort. Ballast Nedam commissioned a study and by March 1997 Arijan van Vuure, Rudi Gertsch and Oberto Oberti shook hands on the location that is now the arrival point of the Golden Eagle Express and of the Eagle's Eye Restaurant.

In addition to a uniquely experienced design team including Alan Artibise, Michael Vaughan, Beat von Allmen, Brian Wills, Rob Parkinson, Glenn Stewart and many other key people and their offices, the concept generated an overwhelming response and support by the people of Golden, and in particular by some of the leaders in the local sport organizations, like Mike McKnight, Jeff Dolinski and many others, who contributed to the vision and to the success in a rapid process leading to the opening of the first phase of the project.

The expansion of Whitetooth and the subsequent creation of KHMR was conceived with the creation of a new company founded by Ballast Nedam of the Netherlands as a sole purpose subsidiary in 1997. The company was initially called Golden Peaks Resort Inc., and since the opening of KHMR it has been called Kicking Horse Mountain Resort (KHMR) L.P.

***EXHIBIT 1.4.: Surveying the Gondola Location***

*L-R: Oberto Oberti, Rudi Gertsch, and Arijan Van Vuure at the arrival point of the gondola. March, 1997*

Ballast Nedam had been previously active in Canada with the construction of the 12.9 kilometer (8 mile) long Confederation Bridge, linking Prince Edward Island with mainland New Brunswick. Some people have made comments to the effect that Ballast Nedam came to Golden in order to create a tax shelter for the profits of the Confederation Bridge, but this was an erroneous interpretation of events. In fact, the Confederation Bridge was a project that went considerably over budget (it became successful later because of higher than anticipated traffic) and Ballast Nedam did not require any tax shelters, on the contrary, the bridge project generated tax losses.

One of Ballast Nedam's driving forces in pursuing a project in Western Canada was the desire to find a location that would attract a prime hotel chain for which it had just successfully completed a hotel project in Aruba. Circumstances changed and the hotel chain decided to establish a presence in Whistler only. However, the desire to attract a major hotel chain continues to be among the main objectives of KHMR and is one of the considerations in the expansion plans.

A preliminary proposal was prepared in 1997 and presented to the Province through the Ministry of Environment, Lands and Parks. A conditional agreement to acquire the Whitetooth Ski Area assets was entered into with the owner and licensee, the CSRD, with the support of the Whitetooth Ski Society. The CSRD and the Town of Golden held a referendum on the question of the sale of Whitetooth to KHMR and of the proposed project. The referendum was held on September 20 1997. There was a record voter turn out (approximately one third more voters than at provincial and federal elections) and approval response: 92.8% of the voters said “Yes.”

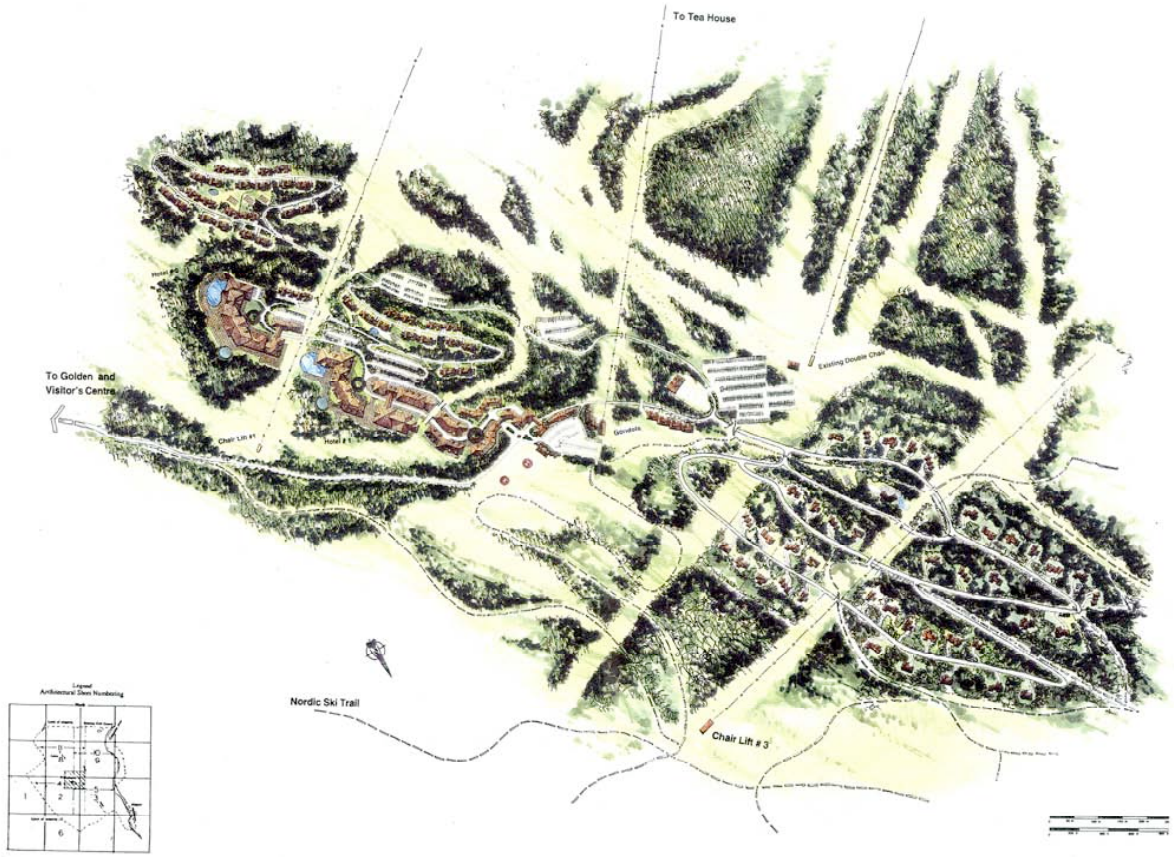
In January, 1998, KHMR entered into an Interim Agreement with the Province and began the review process with various government agencies and stakeholders, leading to a preliminary Master Plan approval for 2000 Bed Units in October 1998 and to a Master Plan approval for a project expanded to 3,000 Bed Units in 1999. The Master Development Agreement was concluded in March 2000. The CSRD voted unanimously to request the Province to create a Mountain Resort Area and chose not to zone the area. A utility company was formed and approved by the Province for the provision of services. The approved Master Plan became the controlling development document and the construction started immediately with an official resort opening on December 8, 2000.

The history of the site, prior to the 1999 Master Plan, was summarized in a study prepared by Brent Harley and Associates in 1996 – the West Bench Feasibility Study as follows:

> In 1981, Ted Farwell and Associates Inc. were retained by the Golden Golf and Country Club to create a resort development concept for the West Bench. The resultant report proposed the development of a downhill skiing facility for the north-east face of Whitetooth Mountain, and a summer recreation complex at the confluence of Holt Creek and the Columbia River to feature two eighteen hole golf courses. In 1982, application was submitted to the Crown by the Golden Golf and Country Club with the intent of gaining access to the West Bench lands in order to develop a world class four season destination resort in the Golden area. Directly tied to this, the Golden Golf and Country Club and the Whitetooth Ski Society were both formed as non-profit societies. In 1983, the Whitetooth Ski Society applied for and subsequently obtained a $400,000.00 Provincial Lottery Grant to aid in the development of a community ski facility.
>
> In 1984, Evans Forest Products of Golden completed construction of the bridge crossing the Columbia River, and the Dogtooth Forest Service Road was constructed adjacent to the present golf course site. The construction of the bridge enabled access to the golf course site allowing construction to begin, and in September 1985, the golf course opened with the first nine holes complete. The summer of 1993 saw the first full season as an eighteen hole course.
>
> Because a significant amount of road construction was still required to reach the ski area site, the Whitetooth project was temporarily put on hold, as the Ski Society realized that they were unable to proceed with both the road construction and ski facility development simultaneously. During the summer of 1985, Evans Forest Products constructed the Dogtooth-Cedar Lake Forest Service Road, providing access close to the proposed ski area base. The Whitetooth Ski Society was reactivated and a membership drive launched to

determine the level of public support for the project. Approximately 1,000 memberships were sold in the two months following the reactivation of the Society. In June 1986, a local taxation referendum was approved, giving taxation authority to the Columbia-Shuswap Regional District to raise $800,000.00 of capital development funding to construct the existing ski facility at Whitetooth Mountain. On December 26, 1987, Whitetooth opened for its first operating season. The Ski Area operates on 437.7 hectares of land leased [sic] by the Crown. The Ski Area is operated as a non-profit venture by the Whitetooth Ski Society and all of the facilities are owned by the Columbia Shuswap Regional District.[1]

***EXHIBIT 1.5.: Initial "Golden Peaks Resort" Base Area Concept (1997)***




[1] More precisely, the area licensed from the Crown by the CSRD was subject to an operating agreement between the CSRD and the Whitetooth Ski Society.

### 1.1.2. Fundamental Components of the KHMR Vision and Plan

The fundamental components and origin of the 1997 Master Plan vision, approved by the Province in 1999, may be described as follows: the project consisted in adding a major lift, a winter and summer gondola, to the Whitetooth ski area as a means to create a year round attraction and to place both Whitetooth and Golden on the tourists' map with a scenic view point and exceptional skiing departure point.

The uniqueness of the concept consisted in opening up the view of the other side of the mountains and of the more intimate valleys as well as of the mountain ranges beyond reach. The proposal included opening up a whole mountain for skiing with one lift – an experience that compares well with the more common North American experience of skiing ski pods around chairlifts.

The new gondola justified a marketing campaign that launched a substantial development at the base, with hotel rooms and ancillary condominiums, timeshare and single family chalets, in character with the National Parks' architecture, based on the use of stone and wood.

Considerations influencing the development of the design concept of the 1999 Master Plan were:

- The natural slope of the land;
- Sun exposure;
- View exposure;
- Preserving a natural park like forest setting;
- Maintaining drainage patterns;
- Placing dedicated road access to provide access to fee simple titles and yet to be unobtrusive and short in overall length;
- Utilizing above grade parking as much as possible but placing parking out of view and in more than one lot;
- Achieving ski in and ski out access for all parking areas and overnight units by means of the lower lifts;
- Concentrating enough density around a major hotel to achieve a resort village atmosphere;
- Placing the hotel so that it will have direct exposure to views and enable enjoyment of a forested park like setting in the summer;
- Creating two poles of the main activities, day visitors and gondola, and overnight visitors and hotel, so that the resort activities will connect the two vital poles;
- Creating interesting events between the two main poles of activity, both in terms of design elements and in terms of location of commercial activities;
- Creating a visual alpine atmosphere and a Rocky Mountains National Parks heritage style;
- Creating a feeling of visual proximity to skiing in winter and the opportunity for ski run flow through, while minimizing skier bridges or road overpasses;
- Creating a grand arrival, both for visitors arriving at the resort and for skiers, of the main congregation area on the two sides of the gondola base;
- Maintaining a balance between grassy openings of ski runs and other activities and the

forested setting;

- Maintaining a balance between areas utilized for development and available open spaces in the overall planned development area;
- Minimizing environmental impacts and maintaining a relatively small development area in proximity of the base of the ski area, leaving the West Bench substantially intact;
- Providing more spacious living and sleeping quarters than in most resorts, at an elegant but affordable level;
- Emphasizing small scale development, wood frame and heavy timber construction, with hotels being the only major structures;
- Scaling the project to a size that would be manageable by Ballast Needam International;
- Achieving a good number of “warm beds”, by a prudent balance of hotels rooms, bed and breakfast, timeshare and rental pool units and condominium, townhouse and single family units;
- Planning for compatible access to other activities, from Nordic skiing to snowmobiling, from trail rides to bicycle routes;
- Relying on the proximity of the town of Golden for most of the anticipated employee accommodation;
- Planning to rely mostly on the local and regional workforce for the construction and the management of the resort, and
- Planning for flexible and self contained phases of development, starting with a potential minimum opening scenario.

Between 1999 and 2005 the design was modified and augmented with the introduction of an expanded plaza at the arrival point, a slightly larger bed base, from 3000 beds to 3,500 beds, and the inclusion of part of the Feuz bowl in the Controlled Recreation Area. The original concept was substantially maintained and enforced through the mandatory design review and guidelines. The intent is to expand the Master Plan to achieve an optimum target in the ski industry of today while maintaining the successful principles of the original Master Plan.

***EXHIBIT 1.6.: 1999 Master Plan Base Area Concept***


The gondola has captured the imagination of the public and created a unique experience not because of the type of lift, that is available elsewhere in North America, but because the gondola at KHMR combines sightseeing with the experience of skiing the whole mountain. Unlike most North American ski areas, where visitors experience ski pods serviced by a chairlift and the ski area consists of a series of ski pods and a network of lifts serving ski pods, at KHMR people are able to ski a whole mountain from a single lift. Ski run development even became secondary and is still lagging behind because initially it was felt almost unnecessary, despite the fact that ski runs were planned and are an important component of the plan yet to be implemented. In the US Jackson Hole and Snowbird provide a similar experience, but the sight seeing is more limited. In Canada there is no similar experience.

The arrival point is a unique part of the experience, unlike most other places where the arrival pointy is just a ski run departure point.

KHMR can count on natural snow from top to bottom for a vertical of 2,435 meters to 1,265 meters. Even if the bottom can use snowmaking to secure a safe and longer season with a deeper base, skiers can rely on an adequate cover of natural snow over top of the artificial base at the bottom. Unlike most of BC resorts, KHMR combines a dry climate with good snow cover.

Climate and elevations make KHMR unique in BC. It is the highest front country ski resort (base at 1,265 meters, top at 2,435 meters, currently the highest in BC) and a high mountain experience accessed from the Trans Canada Highway, just outside the national parks. It is protected from the arctic cold of the Banff region and from the moisture of the pacific storms that are stopped on the west side of the mountains.

***EXHIBIT 1.7.: Descending to Crystal Bowl***

*EXHIBIT 1.8.: 2000 Master Plan Skier's Arrival Plaza Concept*

*EXHIBIT 1.9.: 2000 Glacier Lodge Concept*

*EXHIBIT 1.10.: Existing Mountain Facilities*

## 1.2. PROJECT NAME AND GOALS

### 1.2.1. Project Name

The initial project and corporate name for the expanded ski area, as reflected in the 1999 Master Plan, was Golden Peaks Resort Inc. This name was changed prior to the new resort's opening in 2000, to Kicking Horse Mountain Resort (KHMR) – a name that has been successful and will be retained going forward.

### 1.2.2. Project & Expansion Goals

The original goals as summarized in Section 1.1. above remain the fundamental goals of KHMR. The notion of offering superior skiing in the best climatic zone of the Province, at the right elevations, and with the unique experience of skiing a whole mountain rather than ski pods, and opening up vistas that are not accessible anywhere else in the National Parks circle route, remain fundamental in the vision of growth of the Master Plan.

The major new goal of KHMR's expansion is to achieve a new level of sustainability as a destination resort, whereby the majority of visitors will be overnight guests at the resort instead of being day commuters from other areas.

***EXHIBIT 1.11.: Gondola – Top Terminal***

This goal will be achieved not only with an expanded bed base, and adding employee housing on the mountain, but also with a new level of expanded activities. The expanded plan will include a signature eighteen hole golf course and a significantly expanded uphill capability and ski area.

The project responds to the main aspects of the BC tourism policy. It is a bipartisan policy that has been recently restated and expanded in the *BC Resort Strategy and Action Plan*, [2] which notes, "the Province believes the market can support both growth and new product development at existing resorts while welcoming proposals for new resorts in British Columbia."

Why expand KHMR? There are many reasons, both in the public interest and in the best interest of the ski area and of the resort itself for its long term well being:

1. Canadian tourism trends are not positive. Canada is losing its tourism market share and its tourism deficit is increasing as well. In order to salvage and even grow market share, it's important to generate new and improved tourism products that can compete at a

[2] British Columbia Resort Strategy and Action Plan Executive Summary; Page 1

global level;

2. The best opportunity to expand tourism market share in B.C. is through ski resorts. Latitude, climate and elevations make the southern interior of B.C., and particularly the Purcells, the best place in North America for ski resorts;
3. Statistics from the last 25 years demonstrate that B.C. is in a good position to expand its skier market with destination skiers even if the American skier market does not increase;
4. Offering quality new accommodation and higher level ski experiences will be part of the necessary strategy;
5. Despite the need for snowmaking at lower elevations, KHMR can assure a white Christmas to its visitors. It can also offer extended ski seasons through its high alpine areas;
6. KHMR is the highest “front country” ski area in B.C. both at the accommodation base (1,275m) and at the top (2,450m) – and will remain so even after the possible opening of the proposed boutique “backcountry” ski area, Jumbo Glacier Resort near Panorama;
7. If climate change results in future higher average temperatures in B.C., KHMR is the only “front country” ski area in B.C. that may survive the attendant challenges with relative ease due to its higher elevation and drier climate, which would minimize precipitation in the form of rain;
8. Golden is situated in the Kootenay region of south-eastern British Columbia and within the spectacular region known as Kicking Horse Country. Additionally, Golden is near six of the most stunning National Parks Canada has to offer (Banff, Glacier, Jasper, Kootenay, Mount Revelstoke and Yoho). In the past year, Golden created a tourism association entitled Tourism Golden. Tourism Golden is expected to enhance tourism for the town as well as Kicking Horse Mountain Resort;
9. KHMR is in an ideal location, along the Trans Canada Highway, near two regional airports and the Calgary International Airport, to attract visitors for longer stays;
10. The expansion is along the lines of the original plan and would not significantly alter the footprint and the environmental impact of the project. Technological progress combined with upscale development and less frequent travel to and from the resort with a larger resident bed base will allow to minimize the impacts and make KHMR a sustainable destination ski area for the long term;
11. The resort will transform itself from a primarily commuting ski population to a primarily resident ski population, and
12. Creating a more mature resort in the “front country” of B.C. as a sustainable destination for tourism in the “front country” is in the public interest.

*EXHIBIT 1.12.: KHMR Aerial View*

## 1.3. PROPONENT

### 1.3.1. The Corporate Structure

KHMR is a limited B.C. company registered under the Company Act, headquartered at KHMR and it is the managing partner of the KHMR Limited Partnership. Since 2006 the President is Steve Paccagnan, who brings to KHMR a wealth of ski industry experience.

### 1.3.2. Resort Management

Steve Paccagnan, is the current President and General Manager of KHMR. He is a graduate of the Ski Resort Operations & Area Management program at Selkirk College, Operations Management from the British Columbia Institute of Technology, and holds an Advanced Diploma in Business Strategy and an MBA from Athabasca University & Centre for Innovative Management in Alberta. Steve entered the ski industry from the front lines, working at several resorts throughout British Columbia, doing everything from lodging, food & beverage, mountain operations, human resources to marketing and general management. Steve enjoyed several years with Intrawest and was VP/GM of a few resorts including Copper Mountain, Colorado. For over 22 years he has held various leadership positions in many facets of the resort tourism industry in Canada, the US and Japan. Having now been in place as President and General Manager of KHMR since December 2006, Steve and his family have settled into the Kootenay way of life.

Steve Paccagnan has been building on the initial work of the predecessors, Johan Brandenburg who guided the project through its first year of operations, and Arijan Van Vuure, who succeeded Mr. Brandenburg and managed the resort's growth in its formative years. Both have since returned to

Holland. Steve has given new impetus to the unique relationship of the ski area with the Town of Golden and its people. He has re-energized the mountain services and brought the ski area to a new level of convenience and enjoyment, opening up with the best grooming a number of popular new ski runs.

Thanks to his background in the ski industry he reassembled the design team and initiated the envisioning process that laid the foundations of the ideas for the Master Plan revisions and expansion in 2007. As soon as the Master Plan was ready for discussion, at the end of March 2008, Steve Paccagnan started meetings with the closest stakeholders, the Nordic Ski Club, and embraced their comments with extensive revisions. The new plan was submitted to the Province for initial comment in June 2008. Steve Paccagnan has then embarked in a program of meetings with all stakeholders that has been on going during the preparation of the latest draft and that is expected to continue in the implementation phase.

***EXHIBIT 1.13.: Steve Paccagnan & View of Eagle's Eye Restaurant from Blue Heaven***

## 1.4. RESORT OWNERSHIP

Ballast Nedam, a large construction company with headquarters in the Netherlands, is the major shareholder of KHMR, providing investment capability and world-wide engineering and development expertise. Ballast Nedam has been in business for over 125 years and has over 7,300 employees worldwide. It currently has a turnover of about $4 US billion. From the conceptual phase and project financing, through to construction and maintenance, to management after completion, Ballast Nedam has played a critical role in the development of Kicking Horse Mountain Resort.

An additional minority investor is the Columbia Basin Trust (CBT). The CBT is a regional corporation created by provincial legislation in 1995 to work with residents of the Columbia Basin to promote social, economic and environmental well-being in the region most affected by the 1964 Columbia River Treaty. Golden Trust Ltd. is an additional minority shareholder.

## 1.5. PLANNING, DESIGN AND CONSULTING TEAM

Pheidias Project Management Corporation (Pheidias) is the prime consultant coordinating the design team for this project. Pheidias has been working steadily on the project since December 1996, and has, in cooperation with other members of the project team, generated this document for the Ski Area Master Plan.

Expertise in various components of the project is currently being provided by a varied group of consultants including:

- Oberti Resort Design, a division of Oberto Oberti Architecture and Urban Design Inc. (resort planning), associated with Pheidias;
- ENKON Environmental (environmental reports)
- Chris Stethem and Associates (avalanche studies);
- Ecosign Mountain Planners (ski area analysis);
- Thomas McBroom and Associates (golf planning);
- EBA Engineering (hydrology & geotechnical);
- Focus Engineering (civil engineering);
- McElhanney Consulting Services Ltd. (traffic studies and other engineering reports), and
- Live Learn Work and Play LLP (development and market analysis).

## 1.6. PUBLIC CONSULTATION

Public consultation began with the original Master Plan application for the acquisition and expansion of the Whitetooth ski area in 1997 and concluded with the 1999 Master Plan process. A referendum on the question of the sale of Whitetooth to KHMR was held on September 20 1997. There was a record voter turn out (approximately one third more voters than at provincial and federal elections) and approval response: 92.8% of the voters said “Yes.”

Consultations with area stakeholders has been on-going since the initiation of the resort in 2000.

According to the terms of the Commercial Alpine Ski Policy (CASP), KHMR will undertake new consultations. A preliminary timetable has been outlined in Table 1.1. below. Timetables will ultimately be determined by the successful and timely completion of each step in the approval process.

***TABLE 1.1.: Timetable for CASP Process***

| STAGE | REMARKS | DATE |
|---|---|---|
| Submission of draft Master Plan and Referrals | • Informal meetings with non-government organizations. meeting with Inter-Agency Review Committee and Province’s preliminary review by referral agencies<br>• KHMR prepares response to comments | April to June 2008 |
| Public Input | • Public information meeting in Golden and formal submission of draft Master Plan and revisions, KHMR conducts additional focus information meetings in Golden with special interest groups.<br>• comments are invited by advertisement | July and August |
| Preparation of final Master Plan | •KHMR prepares Master Plan based on available information and fieldwork, on issues identified, on Province’s review agencies responses and on standard Master Plan requirements<br>• KHHR submits Master Plan to Province | August/September/October |
| Review of Master Plan<br>Public Presentation | • Province distributes Master Plan to referral agencies for review and approval<br>• KHMR advertises and conducts a second open house in Golden to present the draft final Master Plan, and show resolution of identified issues | December/January 2009 |
| Plan Decision Process | • KHMR submits final Master Plan responding to input on draft Master Plan referral to Regional Director, Environment, | January 2009 |

| | | |
|---|---|---|
| | Lands and Parks | |
| Master Development Agreement Process | • Ski Area Master Plan formal approval Province provides draft Master Development Agreement and negotiations are conducted and concluded | January/February |

***EXHIBIT 1.14.: Thanking Supporters Following the 1997 Referendum.***

*EXHIBIT 1.14.: Public Open House Master Plan Presentation – January 2009.*

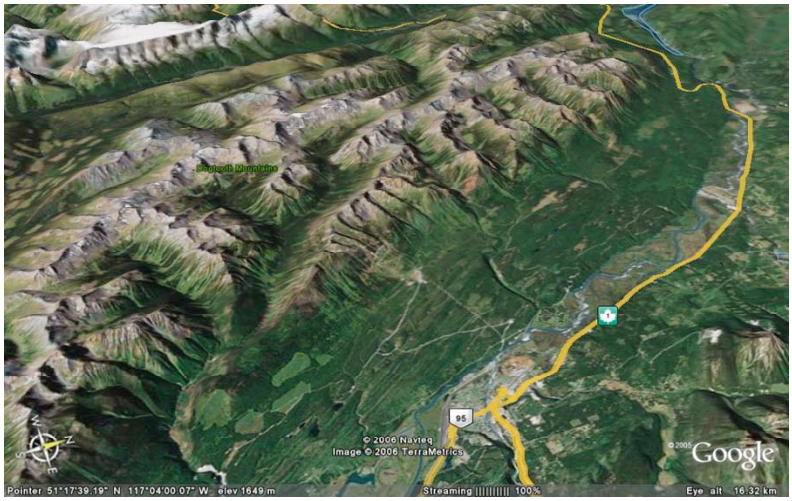

*EXHIBIT 1.15.: Public Open House Attendees – January 2009.*

# 2. RESORT SITE

## 2.1. LOCATION: AT THE PORTAL TO THE NATIONAL PARKS

The Town of Golden is the Western portal to the National Parks. It is located between Glacier National Park and Yoho and Banff National Parks in a valley at the source of the famed Columbia River. The Columbia River Valley is a wide, sunny, unspoiled area running north to south and was left out of the National Park system because of historical circumstances.

***EXHIBIT 2.1.: KHMR's Location Near the Trans-Canada Highway***




Golden is 260 kilometres from Calgary, approximately a three hour drive on the Trans Canada Highway (Highway #1). The highway from Calgary has been upgraded to a four-lane, separated freeway from Calgary to Lake Louise. The drive from Calgary through to Golden is relatively flat, with only one mountain pass between Lake Louise and Golden. The change in elevation between Lake Louise and Golden is moderate. The province of BC is completing a major upgrade of the highway eliminating a winding section in the Kicking Horse canyon east of Golden. With the major upgrade completed the trip from Calgary airport to Golden will take approximately two and half hours.

The Town of Golden is located at the junction of the Trans Canada Highway and Highway 95 from the south. Highway 95 connects Golden to the resort areas of Radium, Fairmont, Invermere and Panorama in the south. The Trans Canada Highway connects Golden to Glacier National Park to the west, and Golden is the major point through which all tourists pass who are visiting the National Parks system coming from Vancouver and from western points.

The KHMR area is approximately 14 kilometers by road from the Town of Golden which provides an existing infrastructure and capable workforce. KHMR is on the West Bench, which has excellent potential for development at a higher elevation (1,250 meters) that avoids most winter fog and is above the winter rain line. There is room to expand the skiable terrain and the resort and to develop other recreation amenities in a sustainable manner on the West Bench.

## 2.2. GOLDEN'S MODERATE CLIMATE

Golden has a moderate climate compared with other destinations in the region. The town sits in a protected area between the Purcell and Rocky Mountain Ranges, resulting in less temperature extremes and significantly less wind than other Rocky Mountain locations such as Canmore and Banff,

Alberta.

On average, Golden has 56 days of rain per year, 37 days with snow, leaving 272 days without precipitation during the year. Average yearly hours of sunshine exceed 2,000. The daily average temperature ranges from minus 11°C in January to 17°C in July. The climate produces dry, cool conditions in the winter that are ideal for producing powder snow. Summers are warm without extremely hot conditions. The Town of Golden is located at an elevation of 790 meters (2,592 feet). The upper West Bench near Golden is an ideal location for an expanded ski resort facility because the snow conditions are superior to other ski areas in the Rocky Mountain Region.

Presented below is a typical average annual snowfall in various locations at the former Whitetooth Ski Area on the West Bench. Presented in below is a snow depth comparison to Lake Louise.

***TABLE 2.1.: KHMR Average Annual Snowfall***

| Location | Elevation | Snowfall |
|---|---|---|
| Base | 4,263’ (1,300 m.) | 100" (252 cm.) |
| Mid mountain | 5,646' (1,722 m.) | 142" (360 cm.) |
| Mountain bowls | 7,075' (2,156 m.) | 256" (650 cm.) |
| Summit | 8,033’ (2,450 m.) | 275" (700 cm.) |

***TABLE 2.2.: KHMR and Lake Louise Snow Depth Comparison***

| | KHMR | | Lake Louise | |
|---|---|---|---|---|
| | **@ 4,300'** | **@ 5,625'** | **@ 5,700'** | **@ 7,800'** |
| November | 48 cm. | 66 cm. | 23 cm. | 46 cm. |
| December | 71 cm. | 102 cm. | 41 cm. | 99 cm. |
| January | 107 cm. | 142 cm. | 41 cm. | 127 cm. |

***EXHIBIT 2.2.: KHMR's Crystal Bowl Area.***

***EXHIBIT 2.3.: Vistas From KHMR.***

*EXHIBIT 2.4.: Golden Express Gondola and the CPR Ridge*

*EXHIBIT 2.5.: Views From Eagle's Eye Patio.*

## 2.3. GOLDEN'S ACCESSIBILITY

### 2.3.1. Road Access

Access to the KHMR is gained from the Columbia Valley. The Valley supports a number of commercial, residential and recreational facilities and has a substantial transportation network in place.

The Trans Canada Highway connects Golden to Calgary and Edmonton and intersects with Highway 95, which connects Golden to Radium, Invermere, and Fairmont Hot Springs and Spokane to the South. From Radium, Highway 93 gives access to Kootenay National Park and to Banff National Park. All three roads are part of a first class, interprovincial highway system and create a loop through the National Parks. Distances to Golden from some major centres are presented in Table 2.3.

***TABLE 2.3.:***
***Driving Distances to Golden From Major Cities***

| City | Distance in Km. |
|---|---|
| Calgary, Alberta | 260 |
| Edmonton, Alberta | 557 |
| Spokane, Washington | 554 |
| Seattle, Washington | 882 |
| Vancouver, B.C. | 713 |

On an annual basis, more than 3 million visitors that have registered as park visitors travel through the Town of Golden. The persons travelling through the park not wishing to stay overnight do not register; therefore, the total visitor count underestimates the total number of persons travelling through the town of Golden. Based on historical data, however, approximately 20,000 persons per day travel through the Town of Golden.

***TABLE 2.4.: Visitor Statistics – Yoho National Park[1]***

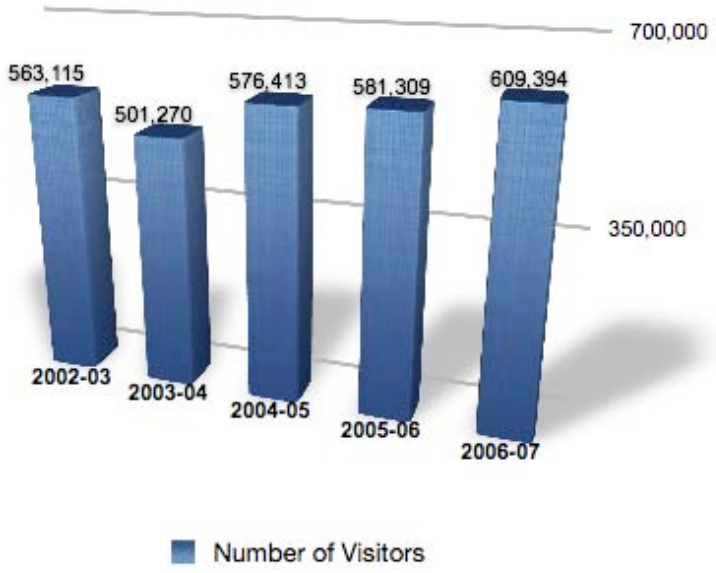
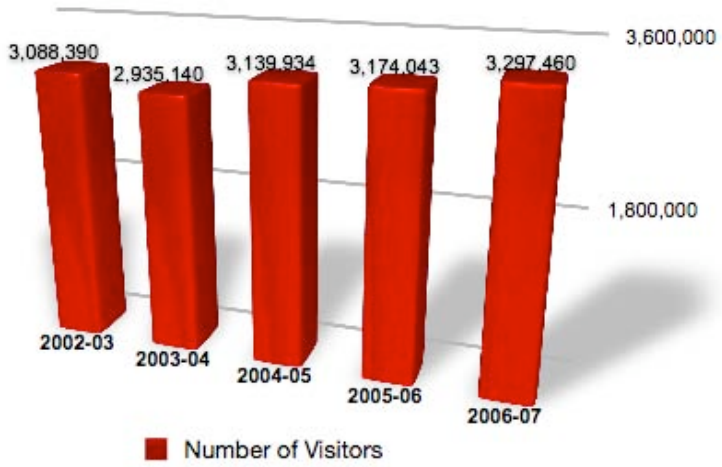



***TABLE 2.5.: Visitor Statistics – Banff National Park***




[1] Source: Parks Canada: http://www.pc.gc.ca/docs/pc/attend/table1_E.asp Accessed March 17, 2008.

*TABLE 2.6.: Visitor Statistics – Mount Revelstoke and Glacier National Park*

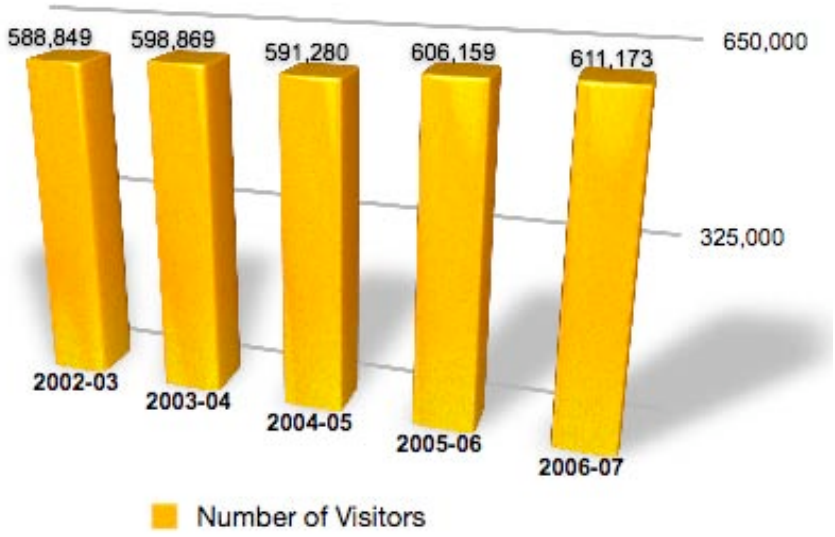



*TABLE 2.7.: Visitor Statistics – Kootenay National Park*

### 2.3.2. Air Access

KHMR can be efficiently serviced by the existing international and regional airways system. Transoceanic flights presently land in Vancouver, Seattle, Calgary and Edmonton. Calgary International Airport is the nearest international and transoceanic airport. Spokane in Washington State also provides another important American airport in relative proximity to the site.

***EXHIBIT 2.6.: Canadian Rockies Intl Airport Expansion (Cranbrook)***


Regional airlines service the recently expanded Canadian Rockies International Airport near Cranbrook (approximately 248 km. south of Golden), with regularly scheduled flights connecting to Vancouver and Calgary. The airport has a runway length of 8,000 feet and customs and immigrations services. Cranbrook can provide air services for the project, although driving time is very similar to Calgary. It is anticipated that a growing number of skiers from markets such as Vancouver and Seattle will be utilizing the Cranbrook airport to access the East Kootenay and Rocky Mountain ski resorts in coming years.

Golden Airport, with a runway length of 4,000 feet (soon to be expanded to 5,000 feet), is now serviced by private and charter flights, but is capable of regular scheduled flights by means of the STOL turboprops currently used by regional airlines.

Approximate distances from the nearby airports to the proposed resort are shown in Table 2.8.

***TABLE 2.8.: Distance to Nearby Airports from Golden***

| CITIES | DISTANCES IN KM. |
|---|---|
| Cranbrook | 248 |
| Calgary | 260 |
| Spokane | 554 |

Air access to the resort site could be provided by helicopter in the future, since it is anticipated that the resort will also serve as a base for heli-skiing operations.

## 2.4. LAND USES

### 2.4.1. KHMR Ski Area and Land Uses

The existing ski area tenure, the Controlled Recreation Area (CRA), is outlined in the 1999 approved Master Plan and is regulated under a Master Development Agreement with the

province, signed in March 2000. The existing CRA includes 1695 hectares (4,188 acres).

### 2.4.2. Purcell Helicopter Skiing

***EXHIBIT 2.7.:***
***Purcell Helicopter Skiing***


Purcell Helicopter Skiing Inc. (Purcell) has a license to operate in this area. The design team preparing the 1999 Master Plan for KHMR originally discussed the proposed Kicking Horse Mountain Resort with its President, Mr. Rudi Gertsch, and an understanding was been reached to work together on the project. Mr. Gertsch is a native of Wengen, Switzerland, an expert mountain guide and one of the founders of helicopter skiing in B.C. He was uniquely supportive of the tourism resort development concept and provided invaluable advice and expertise to Oberti Oberti in the initial preparation of the design concept for the Master Plan. Current expanded plans include provisions for the operation of part of the heli-ski business from the Kicking Horse Mountain Resort. The proposed ski area expanded plan maintains Purcell's bad weather ski runs and excludes them from the proposed project. This explains the area carved out of the existing and of the proposed new Controlled Recreation Area. Mr. Paccagnan has met with Mr. Gertsch and the two companies share a willingness to cooperate toward the development of the best expansion plans for Kicking Horse Mountain Resort.

### 2.4.3. Guide Outfitting and Trapping

KHMR representatives met with Mr. Richard Hark during the original application in 1997. Mr. Hark, through Richard Hark Ltd., had a license to operate as a guide outfitter in the area, and doing business under the name of Columbia River Outfitting. KHMR offered to work together on the project. Opportunities for cooperation included operating stables for trail rides and developing guided snowmobile tours from the Resort. Proposals for such uses may be considered by the Province, under the Commercial Recreation Policy, but cooperation has yet to materialize.

KHMR representatives also met with Mr. Kelly Vaughan, who owned the trapping license for the territory that included the Whitetooth Ski Area and its expansion. It is expected that trapping will continue in the area surrounding the expanded Controlled Recreation Area.

In August 2008, KHMR representatives exchanged communications and offered to meet with Mr. Bryan Englehart, who had yet to respond at the time of writing.

### 2.4.4. Rod and Gun Club

KHMR representatives met with the Rod and Gun Club members and expressed an appreciation for the long-term interests of the Club. While hunting is not appropriate in the Controlled Recreation Area, it has continued without problems in the surrounding areas. Future discussions will be aimed at preserving the interests and the enjoyment of the activities

promoted by the Club, while maintaining public safety.

### 2.4.5. Mineral Tenures

KMHR contacted the Regional Mineral land Planner, Dave Grieve, in Cranbrook and in a letter dated August 14, 1997, he indicated that there were no mineral tenures, no known mineral occurrences in the proposed resort area, and the mineral potential is ranked fairly low (industrial mineral potential is higher, however) so, in the short term there is very little chance of any activities related to mineral exploration or development occurring. A “No Staking Reserve” has been established on the area of KHMR. Over the long term it is more difficult to be definitive about interest levels for any site, because geological concepts and demand for commodities are constantly changing.

There is potential for industrial exploration of minerals in the general vicinity of the ski area outside of the ‘No Staking Reserve.’ Permitting for such activities will ensure that important sensitive values are respected. Mineral tenures exist within 2 kilometres of the resort. KHMR recognises the importance of local mining industry and the importance of a healthy industrial sector for the local community. Some nearby areas with high mineral potential include the area of the Ruth Vermont Mine and near the former Big Bend of the Columbia River, which might be evaluated in the future, depending on demand for various commodities and the availability of new information and technologies.

A review of the British Columbia mineral tenures mapping in April 2008 verified that there are no new tenures or claims in the KHMR staking reserve area.

### 2.4.6. Forestry Interests

The area of KHMR was within the Forest Land Reserve (FLR) and the Provincial Forest but an application for exclusion was accepted in year 2000. KHMR has maintained a close rapport with the local forest industry. The proposed CRA expansion is in Louisiana Pacific’s operating area and includes about 650 ha (about 0.5% of the Timber Harvesting Land Base in the District). This expansion would have to be taken into account in the current timber supply review.

### 2.4.7. Public Recreation Activities

#### 2.4.7.1. Nordic Skiing

In addition to the existing tenures for the KHMR Ski Area, the Ministry of Forests has developed a network of cross-country ski trails that are partly within the Controlled Recreation Area of the resort, and has granted a license to the Golden Nordic Ski Club Society, a large group of ski enthusiasts who operate the tenure for Nordic skiing. The Ministry of Forests licensing authority has been passed to the Ministry of Tourism, Culture and the Arts, which has an agreement with the Golden Nordic Ski Club Society, a section of the Golden Outdoor Recreation Association, for grading and maintenance of the trails. The trails are called the Dawn Mountain Nordic Trails. KHMR has a successful policy of cooperation with the Nordic ski society and will

relocate and improve those trails that may need changing due to the resort development.

KHMR has been working cooperatively with the ski society since the start of the project in 2000 and it is planning to continue to do so. KHMR supports the improvement and expansion plans of the Society. Meetings to review master planning concepts and drafts have been held in the Spring of 2008 and have helped develop and revise the proposed expanded Master Plan in order to accomplish the objectives of mutual support.

See Section 3.5.2. of this Master Plan for further discussion on Nordic Skiing.

#### 2.4.7.2. Golden Backcountry Recreation Access Plan (GBRAP)

The Golden Backcountry Recreation Access Plan (GBRAP), approved in 2003, is the result of work that was initiated in the late 1990's by the Golden Backcountry Recreation Advisory Committee (GBRAC), of which KHMR has been a member for a number of years and has worked with GBRAC to align the proposed expanded Master Plan with existing and proposed GBRAP zonations. GBRAP provides increased certainty for public and commercial recreation activities while maintaining wildlife habitat. It covers 9,000 square kilometres, and deals only with commercial and public recreation (including guide- outfitters), not other industrial users.

KHMR has worked to align the expanded Master Plan with GBRAP zonations to the best degree possible. There are instances, however, where the Master Plan does not align completely with the GBRAP, which would require modification to the GBRAP.

Steve Paccagnan, the President of KHMR, has met regularly with the local stakeholders and has gone over the draft Master Plan with GBRAC in order to identify areas of concern and their resolution. As a result the Master Plan was revised in April/May 2008, in July 2008, in September/October 2008, and December 2008. Significant efforts have been made to attempt to address the concerns of all stakeholders, including those not represented in the GBRAP.

Formal meetings on the Master Plan with GBRAC were held on July 21, 2008 and October 20, 2008, and Steve Paccagnan met with individual members of GBRAC on numerous occasions. The main issues reviewed were the concerns regarding the proposed northward expansion of the CRA, the disruption of GBRAP zonations in the Holt Creek drainage in order allow access to additional water for the resort, the extent of the expansion on the south side, maintenance of summer motorized use on the old rail bed and the protection of the Canyon Creek drainage.

Steve Paccagnan directed the planning team to respond as follows: concerns of the Nordic skiers have been responded to in item 2.4.7.1, above; the potential disruption of the Holt Creek drainage is discussed in Section 3.6.3.1., and the abandoned railway bed is discussed in Section 2.4.7.4. below.

A comprehensive response letter to GBRAC's comments on the proposed expansion plan is included in Appendix L of this Master Plan.

While GBRAC has a process for the review of proposed planning changes, these were not proposed to complement or replace the process of a Master Plan review under the Commercial Alpine Ski Policy (CASP) pursuant to a Master Development Agreement. KHMR has been bringing forward its Master Plan revision as a concurrent and cooperative effort with GBRAC under the umbrella of the CASP process and the concept of the one window approach to government processes.

KHMR has been reviewing the Master Plan with the GBRAC and it expects the Committee to follow its guidelines as reported below:[2]

7. In making recommendations to MAL, the GBRAC considers:

• Does the proposal adequately address the issues and propose strong arguments that would lead to the rationale of the original GBRAP decision to be reconsidered?

• How does the proposal affect the balance of social, environmental and economic values that were often strenuously negotiated into the plan?

• Does the proposal consider cumulative impacts, where appropriate to do so?

• Does the proposed change make the plan better (does it better provide for the social, economic and environmental values that are already inherent in the plan)?

• Does the proposal demonstrate an understanding of the GBRAP and is the proposal presented in a clear enough manner to be considered?

• the quality of the proposal (the accuracy of mapping, the thoroughness in understanding and planning for social, economic, and environmental impact of the proposal on the plan) and application will be taken into consideration.

Flexibility may be exercised when using the above procedures.

[2] http://ilmbwww.gov.bc.ca/slrp/srmp/south/gbrap/pdf/gbrac_tor_2005.pdf

### 2.4.7.3. GBRAP 2007 Recommendations

The GBRAP was originally approved by the Province in 2002. In February 2007 the public was invited to review and comment on proposed changes to the Golden Backcountry Recreation Access Plan (GBRAP). Those proposed changes are pending approval. The GBRAP brochure explains:[3]

*Welcome*

The purpose of the plan is to set patterns of commercial and public recreation use in Golden backcountry in order to maintain valuable recreation experiences, promote and manage tourism, and manage our effect on important wildlife habitat. The plan does not affect industrial access such as forestry or mining operations.

The GBRAP focuses on where certain public and commercial recreational activities should and should not occur in the backcountry. It does not deal with specific operational recreation issues, such as the management of recreation sites or trails.

While the GBRAP covers the entire Golden Timber Supply Area (stretching from the Beaverfoot to the North Columbia), this review only covers the "West Bench" area – extending from 14 Mile Creek to Quartz Creek. The West Bench is considered to be an important area for future growth in public and commercial recreation, and it contains key wildlife values.

*The Middle Section: Canyon Creek to Holt Creek*

The Middle Section contains many popular recreational areas – including Cedar Lakes, Kicking Horse Mountain Resort, and the Holt Creek drainage. It spans the area from the Columbia River Wetlands Wildlife Management Area to the height of land. Most of the area is roaded, with the Kicking Horse Trail and the Dogtooth Forest Service Road providing the major access routes into the area.

The continued development of Kicking Horse Mountain Resort and the rising use in other aspects of outdoor recreation have resulted in an increase in both motorized and non-motorized recreational activity."

The GBRAC has made the following key recommendations:

• The Dogtooth Forest Service Road (FSR) should continue to be the key route to access snowmobiling opportunities to Gorman Creek and more northerly West Bench areas. Work is required to maintain the two existing parking areas, and co-operation with other stakeholders is required to ensure

[3] http://www.recplans.gov.bc.ca/gbrap/OH_Brochure.pdf -- This text was adopted by GBRAC and submitted in the proposed GBRAP amendment #2, which is currently in the ILMB approval process.

the safe use of this access route. Should the Dogtooth FSR not prove to be feasible in the future, then an alternate access route may be considered to the south.

• The area immediately below Kicking Horse Mountain Resort should be designated as a nordic ski zone, which will be non-motorized in winter to allow for expansion of this facility. The exception will be that the existing commercially tenured snowmobile business can continue to use the designated route (see map) from Kicking Horse Mountain Resort to the Dogtooth FSR. To manage this area, it is recommended that a management agreement be implemented between this commercial operator and the Dawn Mountain Nordic Society.

• The area below Kicking Horse Mountain Resort should continue to be open for the current level of motorized use in summer, to provide for local recreational opportunities.

• Except for the nordic ski zone and the Elk road area (the strip of land providing access for Alpine Meadows Lodge), the area below Kicking Horse Mountain Resort should be zoned mostly for minimal development (i.e. no lodges) in order to manage for conservation values towards the Columbia Wildlife Management Area.

• Maintain the motorized zoning in all seasons to the Cedar Lake and Tallis Creek areas. The Moonraker Trail area be non-motorized to manage for continued non-motorized recreation opportunities, such as mountain biking.

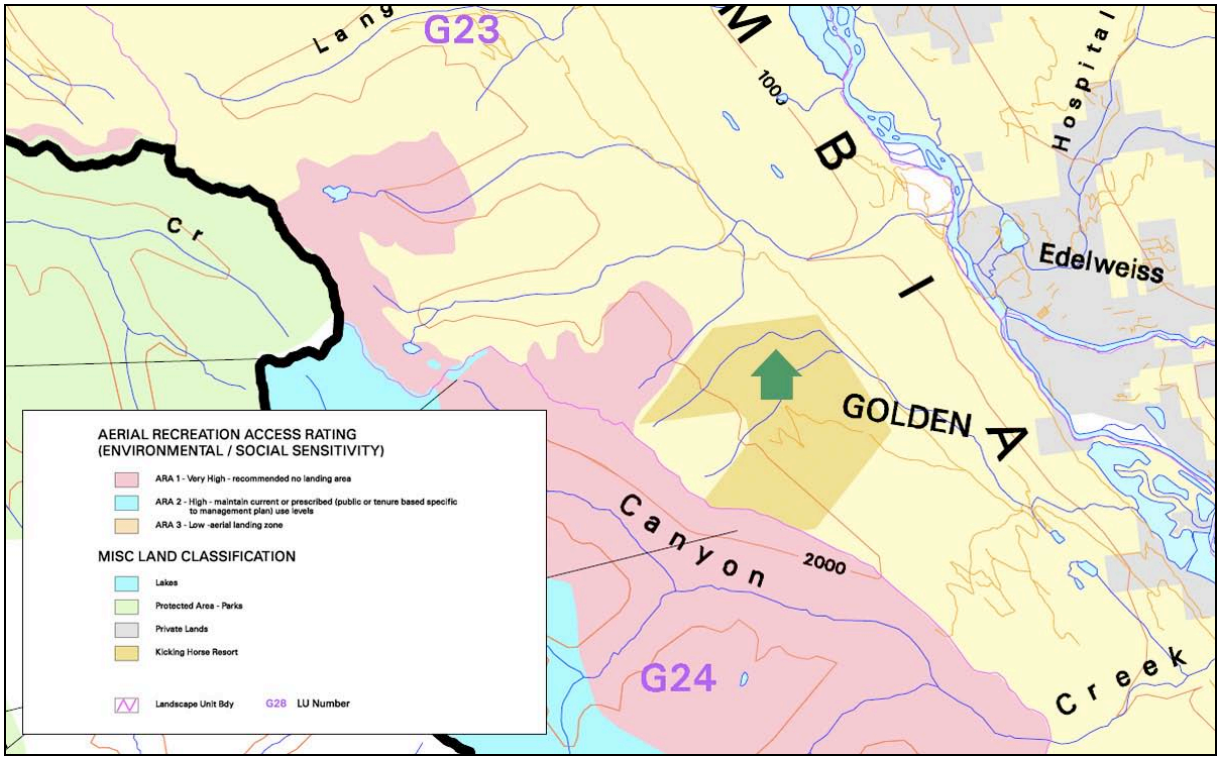
• The Holt Creek drainage should continue to be zoned as non-motorized, to provide for wildlife (grizzly bear and mountain goat) values, as well as future non-motorized recreational opportunities. Holt Creek will be the only road-accessible higher elevation drainage on the West Bench which is non-motorized. A legal motorized closure for this are may be considered.

• The perched basin immediately to the north of Holt Lakes should continue to be zoned for snowmobiling use. This basin would only be accessible from Gorman Lake.

• For aerial access, the GBRAC recommends that the current 2003 approved plan zonations be continued. That zonation maintains recreational aerial landing access to all areas, with the exception of special restriction in the Holt Lakes area (see aerial map). The intent is to allow some commercial aerial use, while maintaining the non-motorized character of this hiking area.

The GBRAP plans below illustrate the outlines of the zones discussed above. They were utilized by the KHMR planning team to work on the expansion plans with the intent of minimizing potential conflicts and changes. Further meetings with the GBRAC allowed to identify and resolve additional areas of concern with the revisions included in the latest Master Plan.

***EXHIBIT 2.8.: Aerial Recreation Access*** [4]




[4] Mapping is from currently approved GBRAP.

***EXHIBIT 2.9.: Summer Ground Recreation Access***

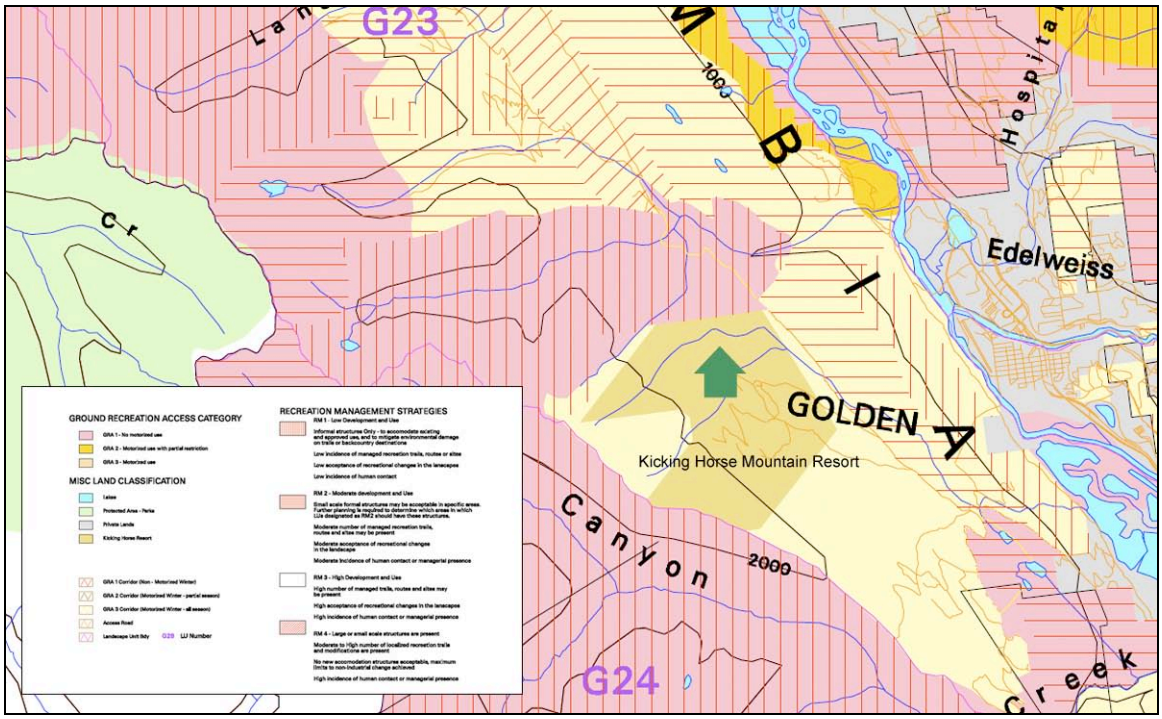
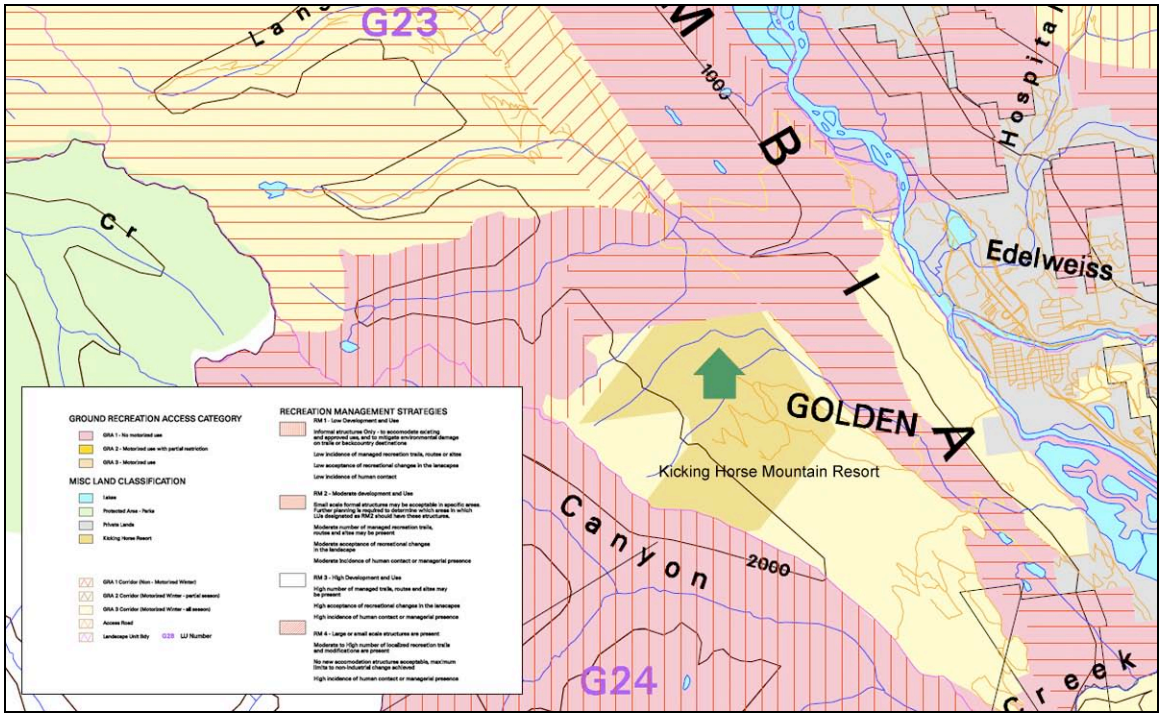



***EXHIBIT 2.10.: Winter Ground Recreation Access***



#### 2.4.7.4. Abandoned Railway Bed

The West Bench was originally serviced by an industrial railway that ran near the base of KHMR. The railway bed has become in part a trail that has considerable heritage value for the local community, and that lends itself to recreational uses.

In order to preserve its viability for existing and future recreational use, and to allow its use to be controlled by other organizations, the Master Plan boundary of the KHMR Controlled Recreation Area (CRA) has been moved and the CRA has been reduced to allow the railway bed to fall outside the KHMR tenure. Where development might be in close proximity, a prescribed minimum setback of thirty feet, similar to that of municipal front yard requirements from property lines and public access, has been established. Setbacks are expected to greatly exceed the minimum requirements and will be specified during the detailed design of each cluster prior to application for subdivision. The establishment of a minimum setback will provide certainty while allowing freedom of design.

A potential conflict existed where the railway bed was expected to pass through some of the golf course holes according to the latest design, which was modified to improve the relationship of the golf course with the Nordic skiers' trails. In this area the railway bed will be maintained for its heritage value, but a new path will be constructed by KHMR to allow the continuation of the recreational trail outside the boundary of the golf course. In this manner the railway bed trail can be used independently from the activities inside the CRA.

## 2.5. REGIONAL DISTRICT LAND USE CONTROL

The CSRD has no existing land use policy or regulation in the area. This was confirmed in a letter from the CSRD, dated August 7, 1997, and the situation is still current. The CSRD supported the original Master Plan concept of a development leading to a mountain resort designation as the ultimate form of governance for the mountain resort area. At the request of the CSRD in 2000 KHMR was designated as a Mountain Resort Area in accordance with the 1995 Mountain Resort Associations Act, which was the legislation under which associations, improvement districts and mountain resort municipalities were structured at the time. This legislation was revised in 2007 by Bill 11 – 2007. In the interim the CSRD requires compliance with its park dedication bylaw and with subdivision standards. The revised and expanded Master Plan illustrates the proposed park dedications for each phase and it is intended that a more detailed plan will be submitted and reviewed with the CSRD prior to subdivision of each phase. This will be in accordance with the overall concept to be developed together with the Master Plan implementation. KHMR planning staff and consultants expect to work on this aspect of the project in cooperation with CSRD staff.

KHMR uses the approved Master Plan and its development guidelines as the guiding document for a planned comprehensive development through statutory building schemes registered on all land titles. Compliance with the BC Building Code is enforced through a mandatory professional certification program through registered BC design professionals.

## 2.6. PROVINCIAL LAND USE CONTROLS

After several years of study, public input and analysis, the Province established the *Kootenay-Boundary Land Use Plan* (KBLUP), in February of 1995. This was followed by the *Kootenay Boundary Land Use Implementation Strategy*, completed in 1997, and the *Kootenay Boundary Higher Level Plan* (KBHLP), approved in 2001, which set out specific objectives for land use polygons designated in the Regional Plan. The objectives for the "Dogtooth Range and Westbench" area are consistent with the objectives of the expansion of the existing ski resort. The KBLUP section dealing with the Westbench notes the following objectives for commercial tourism and recreation:

- Maintain and enhance opportunities for resorts and commercial backcountry tourism, and
- Maintain a range of recreational opportunities from resort land served by roads to semi-primitive recreation land not served by roads.

The objectives identified in other areas of the KBLUP, including objectives for agriculture, general bio-diversity, ungulates and wide ranging carnivores are either addressed under the Environmental Analysis, or are not applicable to the portion of the West Bench that is affected by the resort and its expanded Master Plan. KHMR will work with a Forester and consult with MoF in order to ensure that forestry objectives are appropriately considered over the development phases of the resort.

KHMR has continued to participate in land use planning reviews in the general area surrounding the resort. This has assisted achieving a cooperative interface management between the proposed resort and the adjacent areas of Provincial Forest.

See Section 2.4.7.2. for discussion on the Golden Backcountry Recreation Access Plan (GBRAP) and KHMR's commitment to work towards the GBRAP land use objectives.

# 3. PROJECT COMPONENTS

## 3.1. CONCEPTUAL OVERVIEW

### 3.1.1. Expanding A Unique Resort

The resot expansion project includes an expanded ski area development, new resort base development, new mountain top development, related infrastructure, and provision for related activities. The expansion is planned to occur gradually, through several phases, each divided into development clusters staged over several years. This Master Plan represents a proposed expansion of the resort facilities at full build out with the development sequence and timing to be refined over time and in response to prevailing market conditions.

***EXHIBIT 3.1.: Current Resort Core & Skier's Arrival Plaza***

The project began with a gondola lift to the top of the mountain, together with a mountain top restaurant and view point, which created the theme for the resort and placed Golden on the map as a destination ski and tourism area.

The expansion is intended to complete the dream with facilities that will carry it through to the future and enduring success.

The fundamentals of the concept are:

1. To augment the summer season with a signature eighteen-hole golf course. This, combined with the additional golf course development by the Golden Golf & Country Club near the foot of the KHMR access road, will make Golden a summer golfing destination, and provide greater occupancy for the summer overnight accommodation at the resort.
2. To expand access to the mountain top with a secondary high capacity lift system that will avoid overcrowding of the gondola and will allow skier circulation in the bowls of the high alpine terrain to expand the ski season, and, in general, to expand the ski area and the lift system to respond to the requirements of a destination resort clientele.
3. To expand the overnight accommodation to reduce the percentage of day visitors and increase the percentage of longer term visitors, particularly for mid-week utilization. This entails expanding the resort base in order to create a critical mass that is necessary for a true destination resort that will attract overnight long-haul

guests and is able to sustain independent merchants and commercial activities.

The organizational concept of the resort base will continue to be a classic design and layout in the Alpine tradition, with a dense core in the base area surrounded by residential units among the trees.

The expansion Master Plan proposal has been prepared for KHMR by Pheidias Project Management Corp. of Vancouver, B.C. (Pheidias), which prepared the original Master Plan submitted in 1997 and approved in 1999. Pheidias has continued to work on this project with a collaborative team including Oberti Resort Design, Enkon Environmental, Ecosign and several engineers in the preparation of the expanded Master Plan.

The technical aspects of a mountain plan can often be evaluated through analysis of lifts with the most promising investment merit. The original Whitetooth ski area was known as a two-lift ski hill, and Oberto Oberti initially proposed construction of a gondola from the base area to the very top of the mountain to provide both sight seeing and significantly expanded ski terrain from a single lift. As the project progresses the potential of the area has become clearer and the expansion is the result of study by many people.

### 3.1.2. What Makes Kicking Horse Mountain Resort Unique

Unlike most North American ski hills and resorts, KHMR accesses a *true mountain range and reaches the top of the crestline of the mountain range*. It not only offers a view of the other side of the mountains, but it instils a feeling and the true experience of *skiing a whole mountain* rather than the ski pods of chairlifts. This is the essence of what has captured a unique appeal among ski enthusiasts creating a reputation that surpasses the size of the resort. This will be reinforced over time by expanded capacity and multiple accesses to the top of the wide mountain range, with the potential of achieving one of the best ski destinations on the continent, in a beautiful climate and with easy access. The design concept will strive to maximize the feeling of experiencing the mountain, its setting and its majestic size, for skiers of all calibers and for visitors who do not ski.

***EXHIBIT 3.2.: The Iconic Eagle's Eye Restaurant atop KHMR***

## 3.2. SKI AREA EXPANSION PLAN

After evaluating plans by other consultants and individuals, and recognizing the existing uses, a mountain plan was prepared and submitted in 1998 and approved in 1999. Following the beginning of construction in 2000 the opportunity of the mountain range and of KHMR as a destination was better recognized. KHMR management commissioned a ski area expansion study in 2007 to achieve the objectives outlined at 1.2.2 and at 3.1.

This report contains a description of the expansion plan and a preliminary estimate of carrying capacity and appropriate development of the site with preliminary mountain development statistics which are summarized in the preliminary specifications for ski lifts. The ski area plan is being perfected on the basis of the above noted principles.

The first priority of the expansion plan is to add new capacity to the mountaintop access. The gondola is currently utilized to its maximum capacity on peak days. A new detachable chairlift will replace the old Pioneer chairlift and will be extended to provide an easy connection to the Stairway to Heaven chairlift (chair #2 of the 1999 Master Plan).

***EXHIBIT 3.3.: Existing Ski Area Facilities***

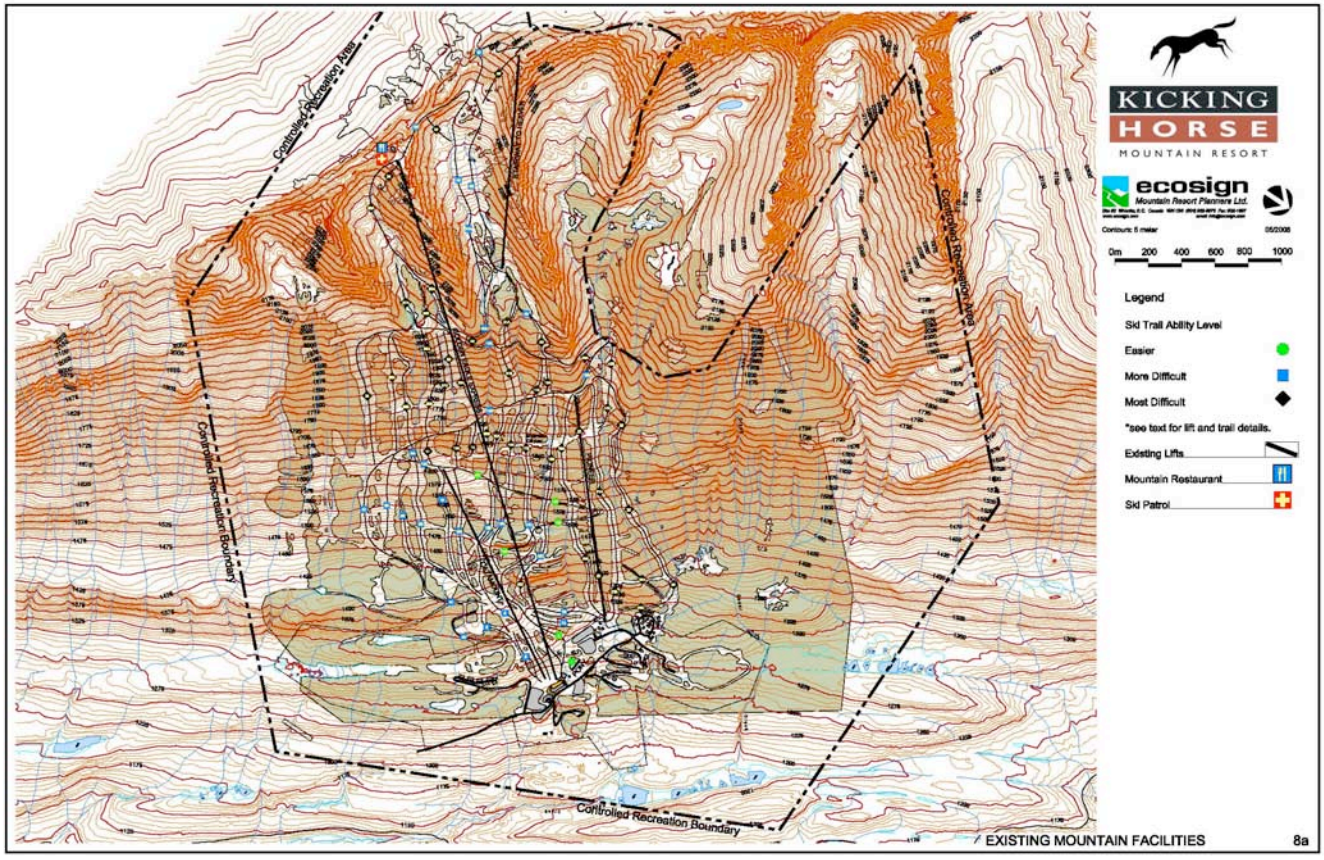


***EXHIBIT 3.4.: 1999 & 2008 CRA Comparison***

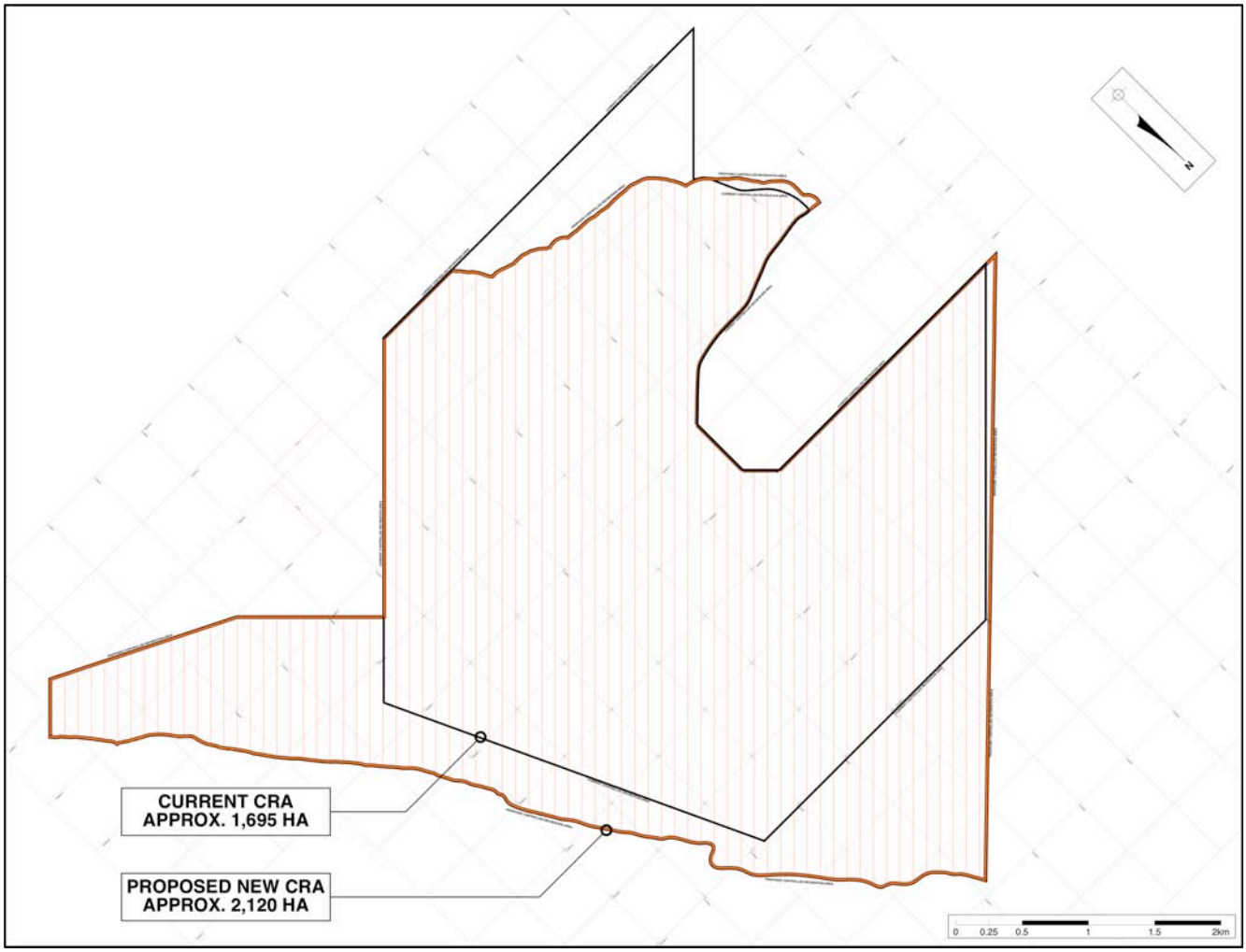


*EXHIBIT 3.5.: 1999 Buffer Zone and CRA Comparison*

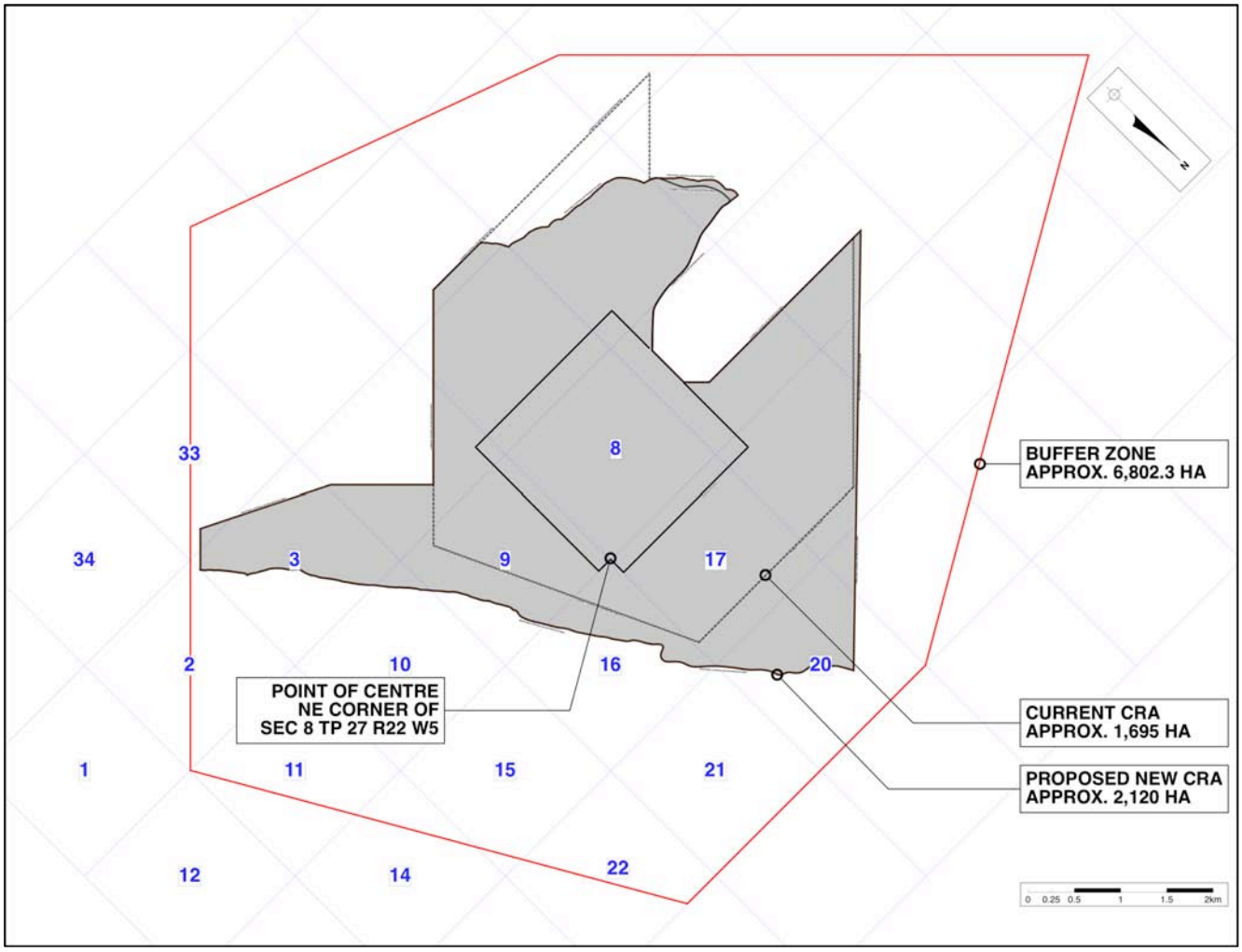
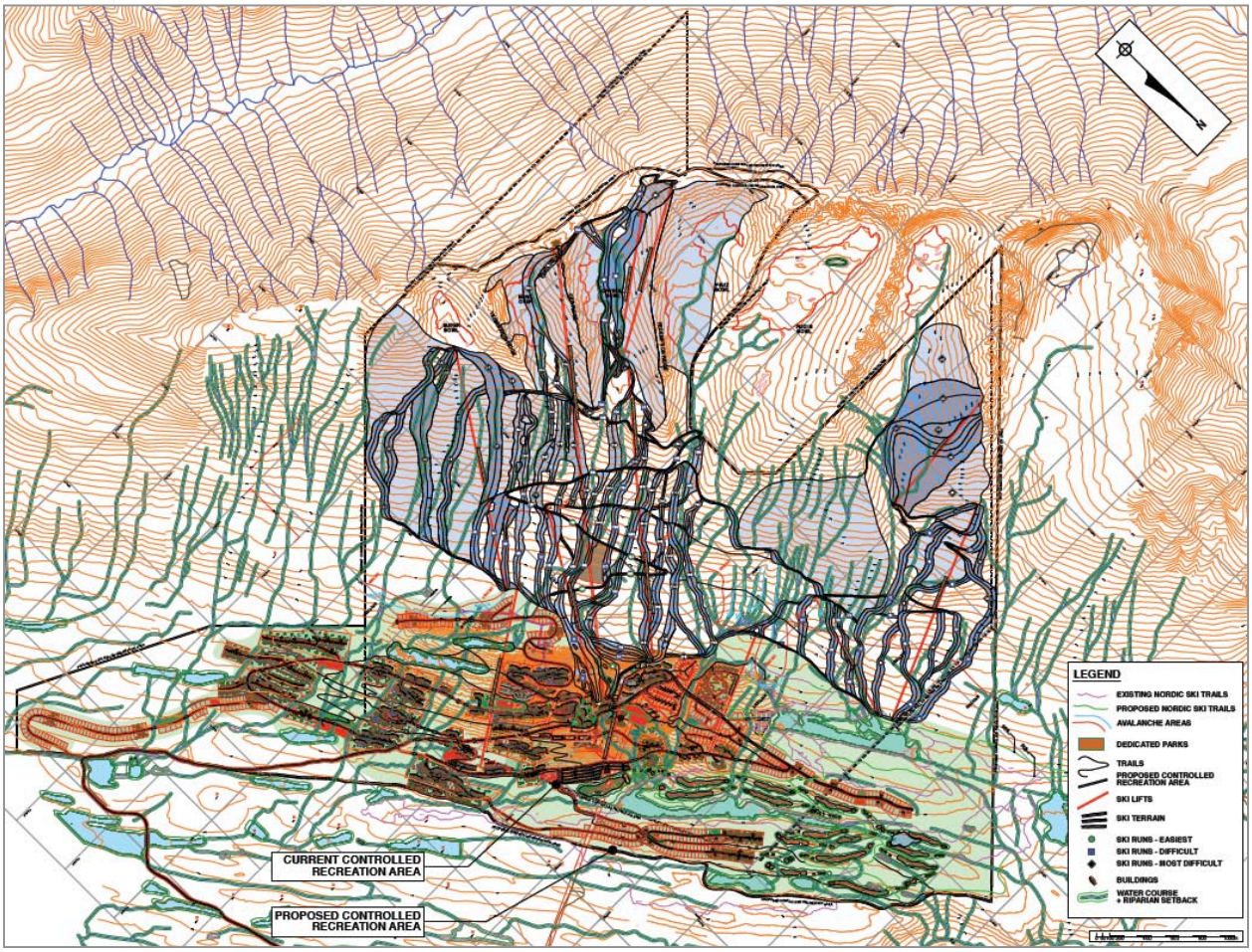


***EXHIBIT 3.6.: KHMR Expansion Plan***




A second important development will be the creation of a better ski school area and the installation of two magic carpet lifts transporting skiers of all abilities from the daylodge to the base of the new Pioneer chair. The Catamount chair will be replaced with a detachable chair, making more convenient for both expert and beginning skiers.

A new pulse gondola will connect a new, larger, dayskier parking area with the plaza level and main lift departure points.

Additional lifts enabling ski-in ski-out for a large area of the resort will be installed – in a similar fashion to those indicated in the 1999 Master Plan (originally lift #4 and #6).

Higher capacity lifts will allow an expansion of the ski terrain to the mountain face to the south. The new Catamount detachable lift will connect with another detachable chairlift that will open a whole new territory on the southern side. On the northern side of the mountain new lifts will give access to another part of the mountain face and bring skiers into the bowl to the North of Rudi's Bowl, which was already proposed for access with one lift (lift #5) in the 1999 Master Plan.

Ecosign has been retained to provide a ski area study and their plans and the content of their preliminary study have been provided to Pheidias Project Management Corporation for inclusion and are contained in Appendix I of this Master Plan.

The main components of the lift system and the principles of the design process for the ski runs are explained below.

### 3.2.1. The Gondola

***EXHIBIT 3.7.:***
***Golden Express Gondola***

The Gondola has become a major attraction in winter and summer, but it is already operating at capacity. A mid-station was originally conceived in 1998 for early and late ski season usage, but added capacity with new lifts is currently seen as a priority.

A lift on the back side of the mountain will provide the opportunity for skiers to return to the mountain top and download with the gondola in the early and late season.

### 3.2.2. Chair Lifts

The design philosophy of modern lift configurations is to reduce the number of lifts by increasing the capacity and by reducing the ride time. This can create crowding of ski runs that have been designed for fixed grip lifts. The conventional design assumption has been that time on the ski hill would be spent waiting in line (33%), riding the lift (33%) and skiing down (33%). It is now common that there is practically no waiting line, and the ride will take less than half the time from the conventional skier distribution.

Most ski area owners take pride in advertising detachable lifts. Although there are several successful ski areas that operate fixed grip lifts, the norm is to build lifts offering less than 10-minute rides. It is a good rule to provide at least two high-speed lifts out of a base area, in order to quickly deliver eager snow riders (skiers and snowboarders) to the slopes. Most shorter lifts, however, including speciality lifts for high-alpine skiing, can remain fixed grip.

An alternative to detachable lifts is one provided by the fixed grip quad-chairs with a moveable platform for quicker boarding times. Movable loading platforms are desirable because of lower maintenance costs, and they have almost the same speed and capacity of detachable quad-chair systems. However, this mode of increased uphill capacity is not yet popular in the North American regulatory environment and ski industry. It is not expected to become part of the project in the near future.

The current preliminary expansion plan has been prepared in cooperation with Ecosign. Lift specifications may change once a more detailed study is completed and prices are obtained by suppliers. It should be noted that an application to construct will be made to the Electrical and Elevator Devices Safety Branch of the Ministry of Municipal Affairs, as final technical details of each lift are concluded to ensure compliance with applicable codes. It should also be noted that the width of the rights of

way for all lifts will be planned on the basis of a minimum of 10 meters so as to accommodate initial lifts (including a reasonable allowance for swinging chairs) and any future upgrades. Lift capacity, installation and phasing will be in compliance with CASP and Master Development Agreement formulas and requirements, along the conceptual lines of the Master Plan.

***EXHIBIT 3.8.: Stairway To Heaven Chair Top Terminal***

*The Stairway to Heaven Chair is an example of a successful fixed-grip quad chair that provides reasonably quick access to a wide range of ski slopes by accessing a mountain top.*

### 3.2.3. Ski Runs

To promote skiing and snowboarding as unimpeded space, trails should be built to accommodate 100 skiers per hour per 10 m. of trail width. The accumulated trail width should be larger when slopes exceed 45% and it should not be less than 5 m. per 100 skiers p/h, except for glide paths. Glide paths or cat tracks may traverse sections that are too steep for fall line skiing and can transfer lower ability skiers from upper benches to the base.

The most important consideration for glide paths is that the minimum gradient per 50-meter section is maintained at 8-10% slope. The lower grade would be used in areas with lower ability use and upper grade should be the norm for inclusion of expedient snowboard movement. The wind direction and isolation of a trail should also be considered for determining grade. A minimum width is needed to guarantee unimpeded traffic flow. The glide paths can deliver up to 1000 skiers p/h when this specification is

met. Trail planning will be completed with the assistance of the ski area operator at the time of final lift layout.

During winter operation, the interest in skiing a long ski run from top to bottom will be satisfied for most ability groups by constructed easy routes. Intermediate ski runs continuing from the mountaintop to the resort base are currently being prepared by KHMR, and will become a classic of the North American ski industry.

In addition to prepared and groomed ski runs, KHMR is unique for its abundant off-piste terrain ranging from the crest line of the bowls to the gladed terrain of the lower elevations, providing a perpetually "renewable" mountain experience to returning skiers. This unique feature to KHMR has been augmented by the advent of new equipment that has made it easer for intermediate skiers to successfully negotiate un-groomed territory.

#### 3.2.3.1. Vertical Drop Determination and Base Elevation

The KHMR site can accommodate a large variety of runs of significant vertical drop. The vertical drop from the top of the resort, at approximately 2,435 meters (7,989 feet – the highest in B.C.), to the lowest chair elevation at approximately 1,190 meters (3,904 feet), is 1,245 meters (4,085 feet). This is currently the third highest vertical drop in Western Canada and the *highest in the Canadian Rockies.* It must be noted that at KHMR the base elevation is above the 1,200 meters (3,900 feet) elevation level, above the natural snow line, unlike the location of the base of the bigger verticals of the other two ski resorts, which have a base near the 600 meters level. This is an important consideration not only in terms of exposure to precipitation in the form of rain for resorts in the 600 meters elevation range, but also in terms of long term sustainability and costs.

The terrain of the area is generally represented by gentle slopes in the upper bowls and steeper terrain on the mountain face. However, challenging chutes are also found around the bowls, and easy skiing is being developed with prepared trails in appropriate areas of the mountain face. KHMR is planning the development of a large variety of ski runs, with the emphasis being on runs of easy to intermediate difficulty. For comparative purposes, the approximate vertical drops of various other ski resorts are included in Table 3.1.

*TABLE 3.1.: Vertical Drop Comparison*

| Ski Area | Vertical Drop |
|---|---|
| Aspen, USA | 3,267 ft./996 m. |
| Blackcomb, Can. | 5,280 ft./1,609 m. |
| Cervinia/Valtournanche, It. | 6,417 ft./1,956 m. |
| Chamonix, Fr. | 9,223 ft./2,812 m. |
| Courchevel | 5,740 ft./1,750 m. |
| Courmayeur, It. | 6,560 ft./2,100 m. |
| Davos, Switz. | 4,212 ft./1,284 m. |
| Grindenwald, Switz. | 3,393 ft./1,034 m. |
| Gstaad/Reusch-Diablerets, Switz. | 5,347 ft./1,630 m. |
| Jackson Hole, USA | 4,139 ft./1,262 m. |
| **Kicking Horse, Can.** | **4,085 ft./1,245 m.** |
| Klosters, Switz. | 5,423 ft./1,653 m. |
| Lake Louise, Can. | 3,250 ft./991 m. |
| Lake Tahoe, USA | 3,600 ft./1,097 m. |
| Les Menuires, Fr. | 4,620 ft./1,400 m. |
| Mount Bachelor, USA | 3,100 ft./945 m. |
| Mount Hood, USA | 2,500 ft./762 m. |
| Mount Washington, Can. | 1,600 ft./487 m. |
| Panorama, Can. | 3,800 ft./1,160 m. |
| Sestriere/Cesana, It. | 5,905 ft./1,800 m. |
| Snowbird, USA | 3,100 ft./945 m. |
| Snowmass, USA | 3,555 ft./1,084 m. |
| St. Moritz, Switz. | 4,750 ft/1,447 m. |
| Sunshine Village, Can. | 1,870 ft./ 570 m. |
| Vail, USA | 3,451 ft./1,052 m. |
| Val d'Isere, Fr. | 4,593 ft./1,400 m. |
| Whistler, Can. | 5,006 ft./1,526 m. |
| Zermatt, Switz. | 7,216 ft./2,200 m. |

The base elevation of the resort base will be slightly above the lowest lift elevation of 1,190 meters. This elevation, combined with the weather patterns

in the area, helps to keep snow cover at the proposed site location well into spring. With the addition of planned snowmaking, KHMR can guarantee an early season opening and spring skiing to the base.

***TABLE 3.2.: Valley Base Elevation Comparison***

| Ski Area | Base Elevation |
|---|---|
| Aspen, USA | 7,900 ft./ 2,409 m. |
| Blackcomb, Can. | 2,214 ft./ 675 m. |
| Cervinia/Valtournanche, It. | 6,724 ft./ 2,050 m. |
| Chamonix, Fr. | 3,378 ft./ 1,030 m. |
| Courchevel | 4,265 ft./ 1,300 m. |
| Courmayeur, It. | 4,015 ft./ 1,224 m. |
| Davos, Switz. | 5,085 ft./ 1,550 m. |
| Grindenwald, Switz. | 4,796 ft./ 1,452 m. |
| Gstaad/Reusch-Diablerets, Switz. | 5,314 ft./ 1,620 m. |
| Jackson Hole, USA | 6,311 ft./ 1,924 m. |
| **Kicking Horse, Can.** | **3,904 ft./1,190 m.** |
| Klosters, Switz. | 3,907 ft./ 1,191 m. |
| Lake Louise, Can. | 5,450 ft./ 1,662 m. |
| Lake Tahoe, USA | 6,500 ft./ 1,982 m. |
| Les Menuires, Fr. | 5,904 ft./ 1,800 m. |
| Mount Bachelor, USA | 5,800 ft./ 1,768 m. |
| Mount Hood, USA | 5,834 ft./ 1,779 m. |
| Mount Washington, Can. | 3,680 ft./ 1,122 m. |
| Panorama, Can. | 3,600 ft./ 1,098 m. |
| Sestriere/Cesana, It. | 5,000 ft./ 1,524 m. |
| Snowbird, USA | 8,000 ft./ 2,439 m. |
| Snowmass, USA | 8,220 ft./ 2,506 m. |
| St. Moritz, Switz. | 6,089 ft./1,856 m. |
| Sunshine Village, Can. | 7,086 ft./ 2,160 m. |
| Vail, USA | 8,200 ft./ 2,500 m. |
| Val d'Isere, Fr. | 5,413 ft./ 1,650 m. |
| Whistler, Can. | 2,214 ft./ 675 m. |
| Zermatt, Switz. | 5,413 ft./ 1,650 m. |

*TABLE 3.3.: Skiable Acreage Comparison*

| Resort | Acres | Hectares |
|---|---|---|
| Beaver Creek, Colorado | 1,529 | 619 |
| Whistler, B.C. | 3,657 | 1,484 |
| Blackcomb, B.C. | 3,344 | 1,354 |
| Panorama, B.C. | 1,600 | 648 |
| Vail, Colorado | 4,112 | 1,665 |
| Lake Louise, AB | 4,000 | 1,619 |
| Kicking Horse Mountain Resort | 4,188 | 1,695 |

#### 3.2.3.2. Digital Terrain Modelling

The digital terrain model for the resort covers the proposed CRA. Following the initial analysis done by Alpentech, Ecosign provided an analysis of the expanded area providing gradations of slope and aspect by colour coding in order to do a review of the optimum layout for the ski runs. What is unique to KHMR, however, is the extent of skiable terrain that is actually utilized in its natural state or with only partial glading. This may be due in part to the large snowfall in the upper sections and in part to the improved access to un-groomed terrain made available by new ski and snowboard equipment. Ecosign's analysis is included in Appendix I.

#### 3.2.3.3. Ski Terrain Suitability Model

A ski terrain suitability model for the mountain was reviewed by Alpentech for the 1999 Master Plan and by Ecosign for the 2008 Master Plan expansion. Typically, a terrain suitability model compares the positive values of a matrix. The same could be done weighing negative values to arrive at a hazard or an impact model. A numerical table analyses the many factors that influence suitability. Each cell is rated according to that table for elevation, slope, solar aspect and shadows, the conditions of the ground and other known factors. The sum of influencing factors is presented in a rainbow colour scheme). The white areas may offer skiing, but require a special feasibility evaluation in the field. The model is calibrated so that the full range of colours is used for differentiating between relative suitability among cells and large areas.

Finding the best suited ski terrain is the highlight of modelling. A query for the ideal topography for skiing and snowboarding can be made uniformly by a computer over the digitized area without the effects from changing environmental conditions or fatigue of the investigator(s). It is necessary, however, to visit the site to obtain a better feeling of the overall suitability. One has to appreciate the mountainscape with its vistas, consider what the impressions of visitors will be, appreciate possible hazards and rate the exposure of people that may be less familiar with the mountain. Modelling is

limited to the topographic input and the resolution of geographic site conditions.

The resort area maps are currently available at 1:5,000 scale. Contour intervals are as close as 0.5 meter for the resort area, but most of the ski area has been studied with contour lines at 5 meter intervals. These contour lines have been digitized and are translated into a Digital Elevation Model (DEM). In addition, the available maps include information about the ground condition which have also been digitized.

From the DEM the computer sorts out various slopes and factors that influence snow retention and snow quality. Four ground conditions have been identified from the 1:5,000 maps: conifer stands, lush or deciduous groundcover, rocky slopes and small lakes. There are other factors affecting skiing operations during marginal snow such as grass cover and surface roughness. It can be expected that the 1:5,000 topography and orthographic mapping have sufficient resolution to reveal enough topographic detail for conceptual ski trail layout on maps. In most of the CRA, a distinct slope break occurs between 1,500 and 1,750 meters. This will require terrain modifications in selected areas to achieve a relative uniformity of slopes for intermediate ski runs. Lower ability skiers will utilize pony trails connecting easier ski pods.

In the layout of the ski runs the planners will take into account that what brings visitors back and promotes the KHMR area is the intense enjoyment of vistas, lights and shadow, contrasting colours, pitches, rolling slopes, recesses, turns and movement of alignments in all directions and ultimately the experience of accessing the crest of a whole mountain range and skiing the entire mountain with a choice of beautiful stops but without the interruption of another lift. Detailed site investigations conducted since 1998 have identified areas where fine tuning will help adjust connection among the best fall lines to provide the most favourable ski runs that are compatible with all levels of ski expertise. Development of ski runs is progressive and at KHMR it has been the product of evolving experience with its public.

The existing ski slopes are large and ideally suited to skiing, but until now have had limited utilization in comparison to other ski resorts. Although the new lifts will increase utilization, the resort will maintain a greater proportion of ski runs and lower utilization than most other ski resorts, for a superior experience. Skiing and snowboarding are social activities subject to the concept of optimum density. Larger groups will draw more visitors and will thereby stimulate the experience to the generally expected level of social human use, but individuals seem to be interested in both solitude and social contact, and KHMR strikes a successful balance, with a lower density of skiers than most ski hills.

The calculation of Skier At One Time (SAOT) and of the Comfortable Carrying Capacity (CCC) allows the optimum number of people on the ski runs to be determined. KHMR will strive to maintain its reputation for open spaces and lower density skiing. Finally, after combining computer modelling with focused field reconnaissance, and the input of planners, specialists and engineers, the product is an overall plan for a mountain resort with a ski area that imitates the

natural flow of the land with minimal impact and maximizes the pleasures of the human experience.

#### 3.2.3.4. Factor Maps

The following factors have been weighted to create an overall skiing suitability map firstly by Alpentech and then by Ecosign: elevation, slope, aspect and shadows. The latest factor maps covering the expanded CRA are included in Appendix I.

#### 3.2.3.5. Other Ski Slope Factors

The geomorphology of the West Bench has been evaluated in the 1996 study by Brent Harley and Associates, Inc. The site consists of four major benches. Each bench has created an interesting longitudinal feature allowing the segregation of various forms of recreation. The land is rolling towards the Columbia River allowing naturally "zoned" recreation corridors. It will be desirable to provide buffers for various summer and winter sports activities. For example, experience with snowmobiling and skiing activities shows an increasing conflict as modern snowmobiles begin climbing "alpine" slopes often risking high avalanche exposure and endangering others below. Noise from motorized recreation is also hindering the full enjoyment of the human powered activities.

Further, any mountain recreation plan must take advantage of the vistas. The major summer tourism attraction will undoubtedly be the greatly varying vistas, including the Purcell Mountains and Glacier National Park panorama seen from the mountain crest, the dramatic view into the Columbia River Basin and the Rocky Mountains, extending all the way north to Mount Columbia. The selection of dramatic viewpoints has been the emphasis of the design team. Consideration of the most exciting and most easily accessible viewpoints has become a strong overlay for the conceptual Master Plan, including the design of the Eagle's Eye restaurant at the top of the mountain.

The aesthetics of the mountainside are affected by the tree stands. Tree islands and feathered edges of ski trails can reduce the strong existing ski trail signature. The utilization of the existing ski trails should be increased with traffic from new lifts. It is aesthetically desirable to connect some of the trails upwards of the upper skier traverse to give the mountain a better look and extend the image of the long, flowing and undulating ski trails.

Obviously, there are factors that cannot be expressed in a fixed numerical scheme. This has already been noted above. Ultimately KHMR has been able to use on the ground experience to progressively develop the ski runs. Skiing below the tree line to the resort base will be achieved along various runs with the intent to multiply opportunities for ski in and ski out of the resort bed base. Lower lifts should be able to collect skiers from residential development and parking using 8% minimum grade glide paths to the lowest lifts. The lowest lift base indicated in the final plans is at 1,190m. (3904 ft.) The final day skiers'

parking area will be connected to the lifts and to the arrival point of the major ski runs by a pulse gondola similar to the installation at Panorama.

The total vertical of 1,245m. (approximately 4,085 ft.) is an impressive ski resort rating which places Kicking Horse Mountain Resort at the top of the list for the Canadian Rockies.

Snowmaking has not been installed yet, in part due to the up-front capital costs and the burdens that would have placed on the nascent resort, and in part because the Golden area benefits from larger snowfall than the neighbouring ski resorts to the east and south. However, future snowmaking is planned and will ensure earlier season opening. With future snowmaking it can be expected that on-snow circulation will be possible for the full ski season near or below the natural snow line (approximately 1,200m).

Glide paths, with a minimum grade of 8% slope, are desirable because they provide mobility to recreation enthusiasts during both summer and winter. With glide paths, skis, boards, sleds, bikes and the like, visitors are freed from having to use their car or other motorized forms of transportation to get to and from their homes or activity centres. An intricate glide path system is therefore recommended between 1,300m and 1,000m altitude. The organization of the glide paths will integrate all future summer and winter trail corridors.

*EXHIBIT 3.10.: Aspect Analysis*

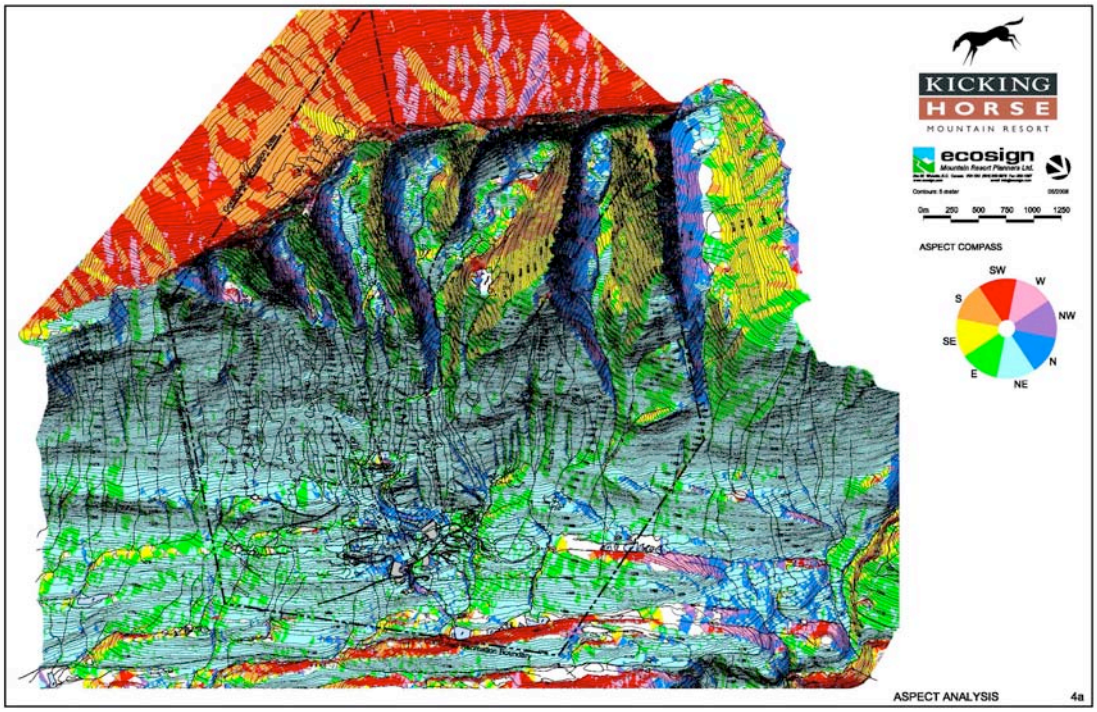



*EXHIBIT 3.11.: 3D Aspect Analysis*

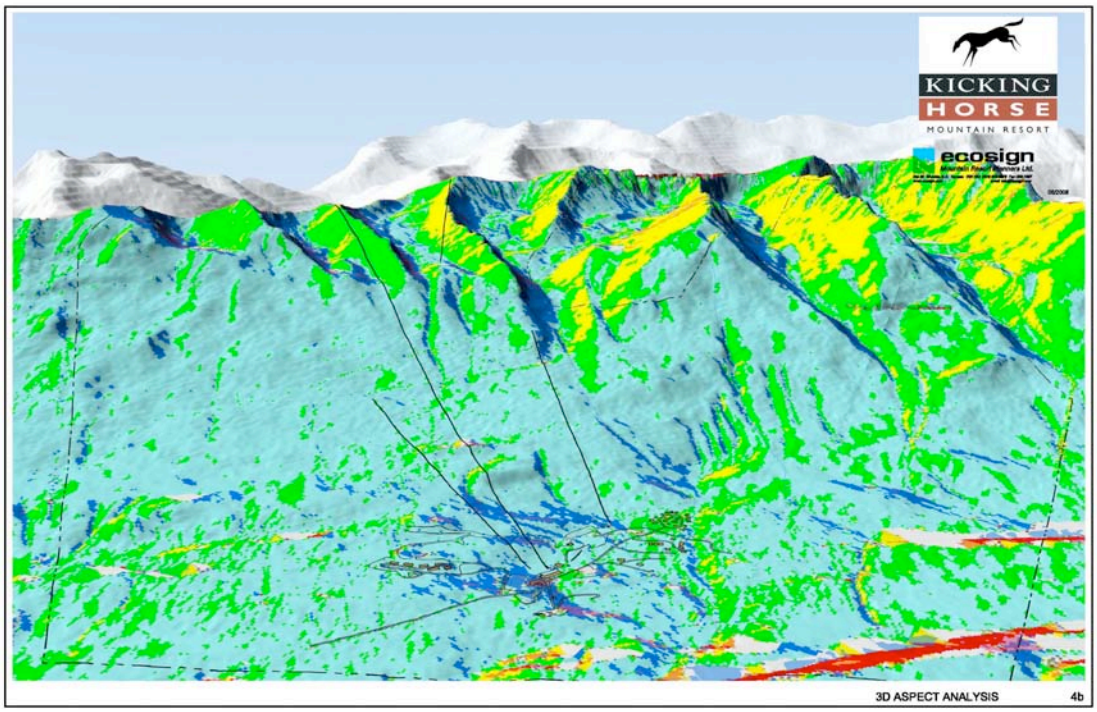


*EXHIBIT 3.12.: Elevation Analysis*

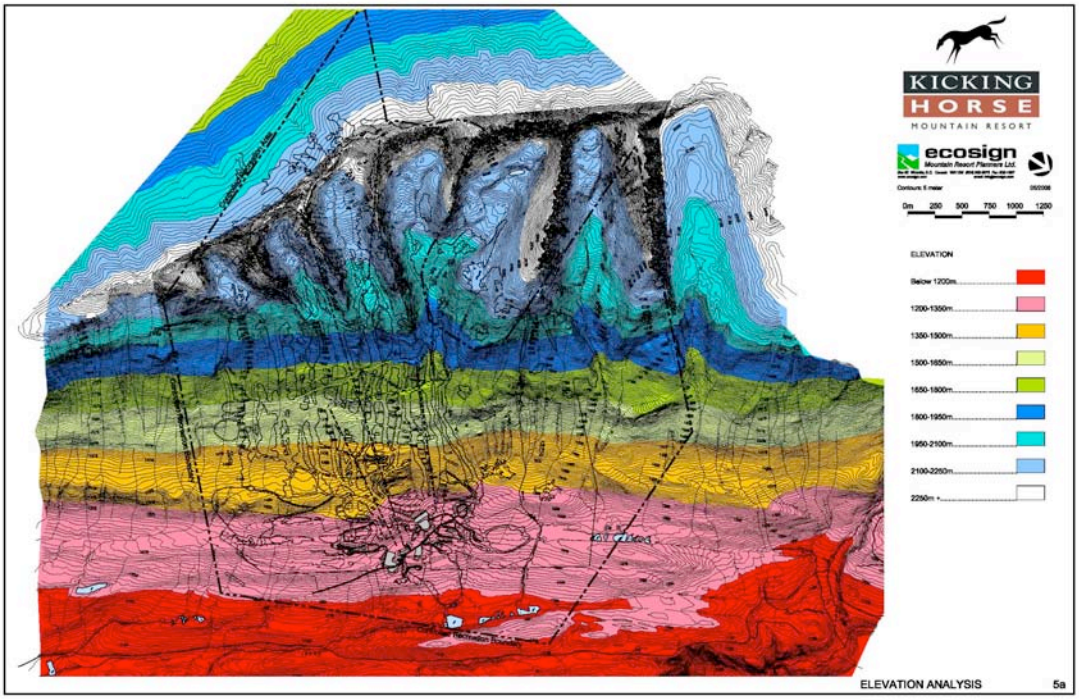



*EXHIBIT 3.13.: Fall Line Analysis*

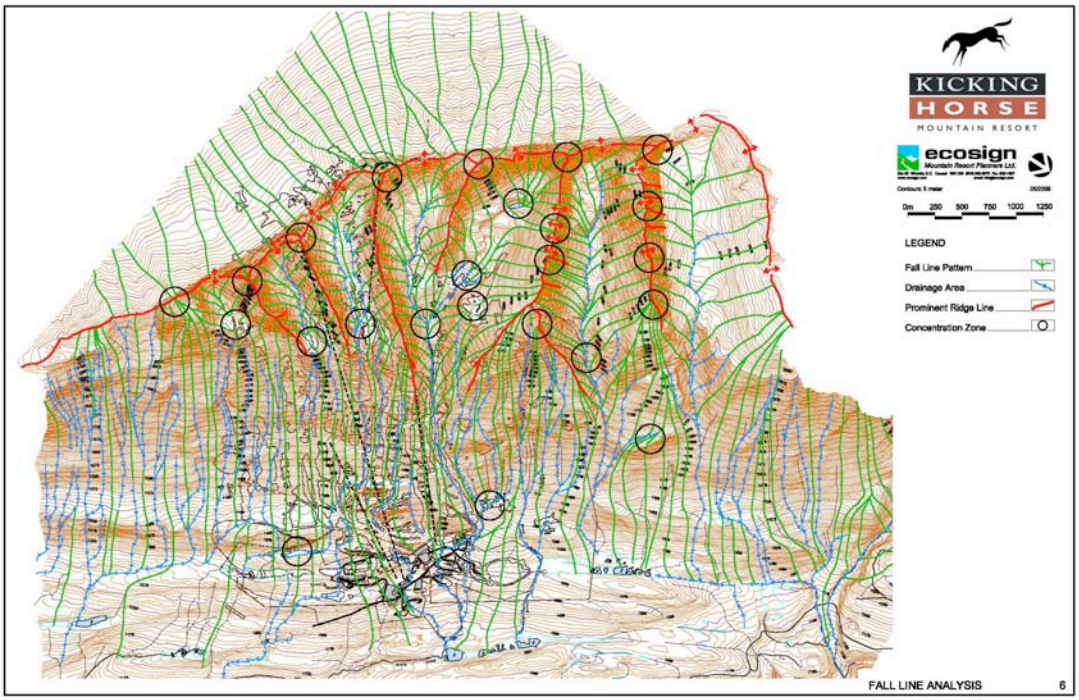


***EXHIBIT 3.14.: Solar Analysis 9:00 am***

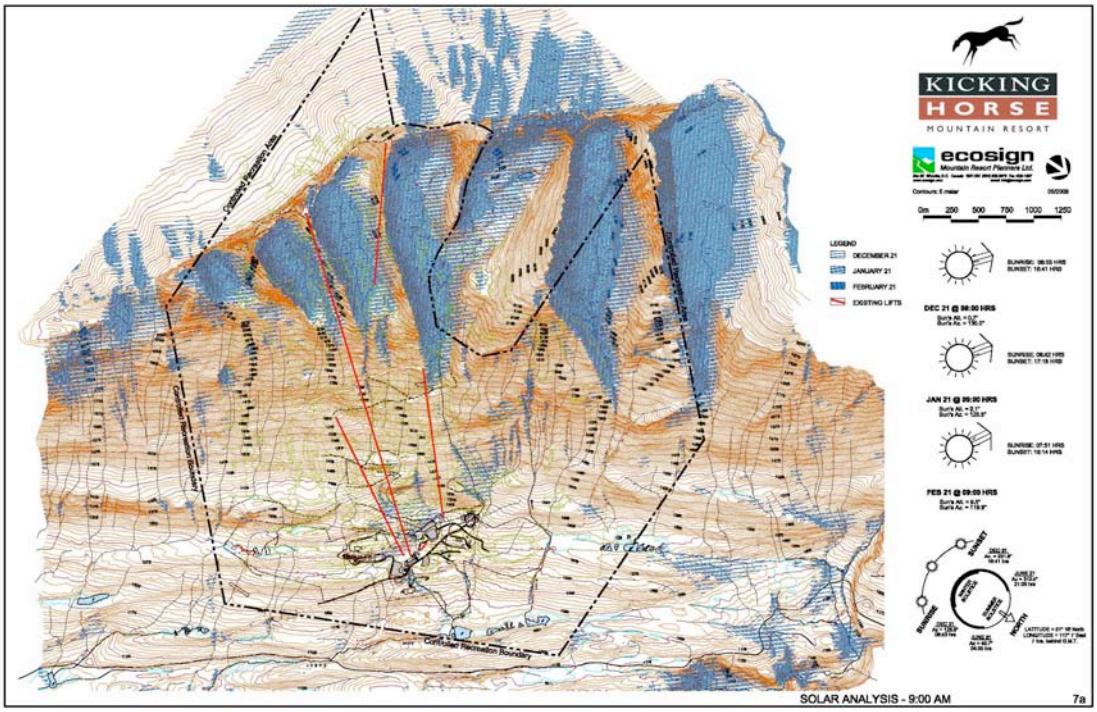



***EXHIBIT 3.15.: Solar Analysis 12:00 pm***

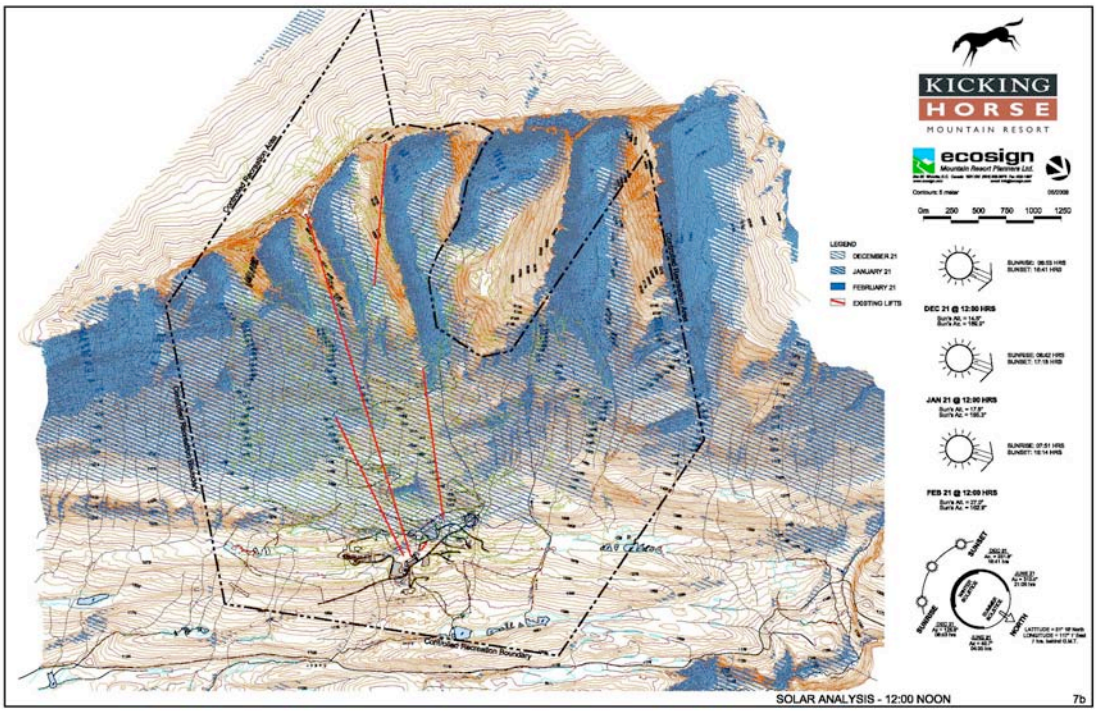


*EXHIBIT 3.16.: Solar Analysis 3:00 pm*

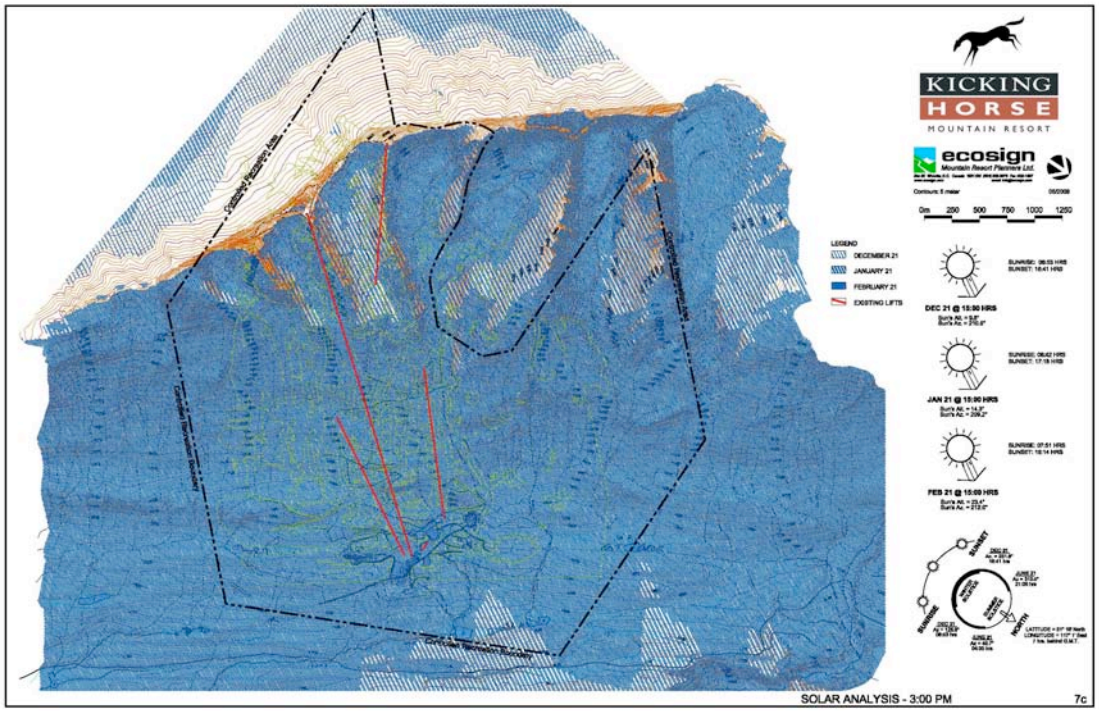
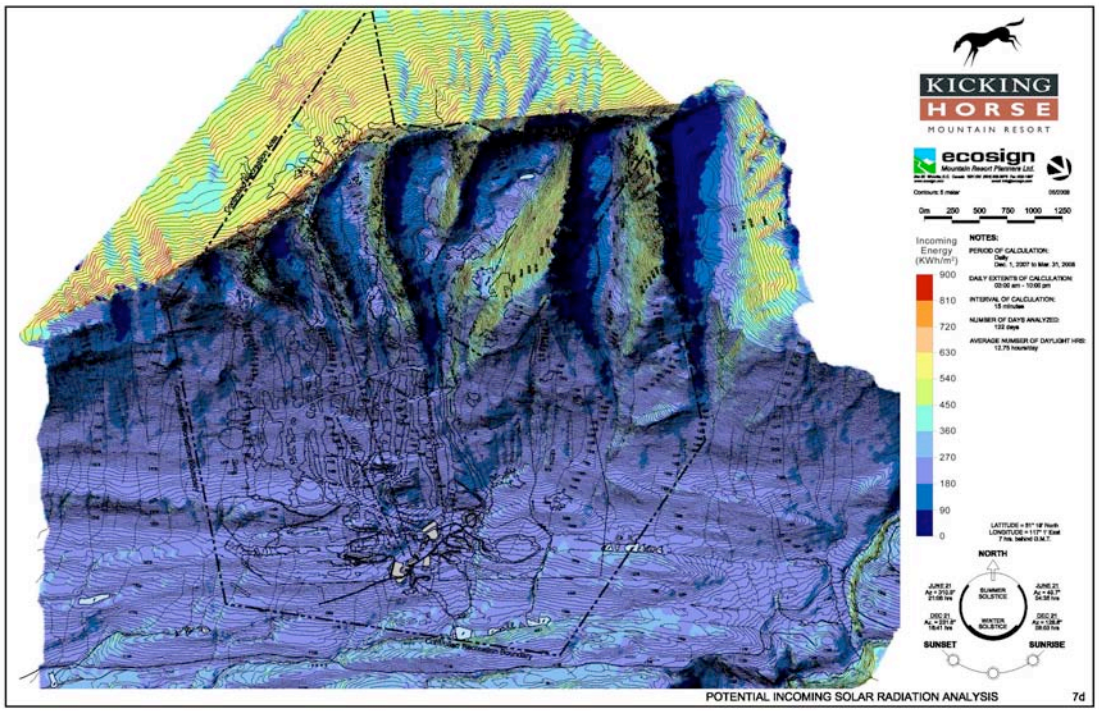



*EXHIBIT 3.17.: Potential Incoming Solar Radiation*



### 3.2.3.6. Mountain Capacity Determination

The Commercial Alpine Skiing Policy (CASP) defines the mountain carrying capacity to occur during the winter season. CASP limits the number of visitors that comfortably fit on a winter sports site from ski trail configurations and lift utilization viewpoints.

Ideally, both summer and winter occupancy of a winter sports site would be equally high for optimal return on facility investment. Without snow cover, mountain carrying capacity will depend on more passive mountain use, centred on view rides, the development of attractive summer hiking trails and activities such as mountain biking.

CASP includes many factors affecting the Comfortable Carrying Capacity (CCC), such as issues of circulation, staging time to remote lifts, multiple periods of use during the day, egress time from remote areas, the need for downloading, etc. The CCC is stated by CASP to be the critical number in understanding annual capacity potential of a ski area.

The key formula defines CCC as the “supply” provided by the ski area divided by the “demand” from users. The “supply” is given by the design of a ski area, and by details of the planned ski lifts, which provides a relatively fixed number of vertical meters per day based on given equipment specifications. The “demand” is a weighted vertical demand created by ski trails per day and is subject to varying user patterns.

During higher peak days at KHMR, the extra supply of steep powder slopes can absorb visitors when their sense of slope congestion is acute. Over-sized teaching slopes can effectively separate various gliding sports and beginner snow-riders. By servicing high altitude slopes and developing relatively remote slopes, peak day congestion will be allowed to disperse. By design of a variety of spaces and lift pods, it can be expected that the margin of vertical meters by visitor day can be exceeded, and by a broad base and vertical staging, KHMR levels of use will provide good dispersal and will reduce the feeling of overcrowding on the mountain.

There have been some observations that KHMR is catering more to expert skiers than to intermediate skiers, but the increased ski area will optimize access to intermediate ski runs and with some terrain modifications in critical areas over time even the classification of ski runs may be optimized.

Alpentech and Ecosign have provided detailed reviews of the ski area plans respectively in the original Master Plan and in the 2008 expanded Master Pan.

In order to appreciate the ski area size and its expansion it should be noted that the 1999 Master Plan provides for a Controlled Recreation Area (CRA) of approximately 1,695 hectares, of which 1,371 ha belong to the potential ski area above the resort base included in the current CRA. The current ski area above the resort base served by the existing lifts includes only 279 hectares.

The 2008 Master Plan proposes an expansion of the ski area and of the CRA to approximately 2,120 hectares, including an eighteen-hole golf course. Approximately 1,418 hectares will be available for the ski area above the resort base. It is estimated that at least 65% of the potential ski area will be skiable and allow for the same quality of low density skiing currently enjoyed by the public at KHMR.

The SAOT calculations and the analysis of the skiable terrain are based on the latest work by Ecosign (reported in Appendix I) and lead to the determination of a skier or mountain capacity as follows:

1. 18,080 Bed Units by 45% skier occupancy rate (industry average is 35% to 50%, see Ecosign table II,19 page II-31 of Appendix IV) = 8,136 skiers.

8,136 skiers is the number of skiers on which to base the mountain's ski run development design.

2. Total uphill lift design capacity is SAOT 18,080 as per CASP formula: 8,136 skiers/18,080 design capacity = 45% utilization rate (slightly above industry standards).

8,136 skiers represent a utilization rate of 45% of the total uphill design capacity, a comfortable number based on industry standards.

3. Total Ski Runs' SCC[1]: 10,230 skiers, exceeding skier numbers by approximately 20%.

The ski run development and open skiing terrain provides a comfortable margin of about 20% over the requirements for 8,136 skiers.

The resort design targets industry standards that are as close as possible to the ideal for a destination ski area. Actual mountain usage for a destination resort needs to be studied in light of occupancy rates and utilization rates. Mountain resort occupancy rates generally range in the neighbourhood of an average of 40% of the available beds. Average lift utilization rates are in the range of 35%. A destination resort planned for and operating with a CCC in the range of 18,000 will see approximately 6,500-7,000 skiers during an average high season day.

[1] Table IV.8 of Ecosign Report – Appendix I

## *TABLE 3.4.: Skiers at One Time (SAOT) Calculations*

**KICKING HORSE MOUNTAIN RESORT - MASTER PLAN 2008**

| SAOT FORMULA | | | | |
|---|---|---|---|---|
| SAOT: | CP | = | CL x VR x LE x HO / VSD | Last Update: February 5, 2009 |
| KEY | CP | = | effective lift pod capacity | |
| | CL | = | hourly lift capacity (skier and snow boarders/hour) | |
| | VR | = | vertical rise of specific lift (feet) | |
| | LE | = | lift loading efficiency = 0.9 | |
| | HO | = | hours of operation = 7 | |
| | VSD | = | vertical skied per day = 10,000 (except for beginners)(feet) | |

| LIFT DATA | PHASE | | VERTICAL Meters | VERTICAL Feet | CCC 100 | CCC Cumulative |
|---|---|---|---|---|---|---|
| **LIFT A (2,400 p/h) CATAMOUNT - DETACHABLE QUAD CHAIR** | P1 | T | 1,615 | 5,299 | 1,720 | 1,720 |
| SAOT: CP = 2,400 x 1138.45 x 0.90 x 7 / 10,000 = 1,721 | | B | 1,268 | 4,160 | | |
| | | V | 347 | 1,138 | | |
| **LIFT B (1,200 p/h) GOLDEN EAGLE EXPRESS GONDOLA (8 PASSENGER)** | EXISTING | T | 2,340 | 7,677 | 2,670 | 4,390 |
| SAOT: CP = 1,200 x 3,530 x 0.90 x 7 / 10,000 = 2,669 | | B | 1,264 | 4,147 | | |
| | | V | 1,076 | 3,530 | | |
| **LIFT C (1,500 p/h) STAIRWAY TO HEAVEN - QUAD CHAIR** | EXISTING | T | 2,450 | 8,038 | 1,210 | 5,600 |
| SAOT: CP = 1,500 x 1,279.53 x 0.90 x 7 / 10,000 = 1,209 | | B | 2,060 | 6,759 | | |
| | | V | 390 | 1,280 | | |
| **LIFT D1 (2,400 p/h) PIONEER (LOWER SECTION) - DETACHABLE QUAD CHAIR** | P1 | T | 1,680 | 5,512 | 1,890 | 7,490 |
| SAOT: CP = 2,400 x 1253.28 x 0.90 x 7 / 10,000 = 1,895 | | B | 1,298 | 4,259 | | |
| | | V | 382 | 1,253 | | |
| **LIFT D2 (2,400 p/h) PIONEER (UPPER SECTION) - DETACHABLE QUAD CHAIR** | P1 | T | 2,060 | 6,759 | 1,880 | 9,370 |
| SAOT: CP = 2,400 x 1246.72 x 0.90 x 7 / 10,000 = 1,885 | | B | 1,680 | 5,512 | | |
| | | V | 380 | 1,247 | | |
| **LIFT E1 (1,200 p/h) BEGINNER LIFT - MAGIC CARPET** | P1 | T | 1,285 | 4,216 | 170 | 9,540 |
| SAOT: CP = 1,200 x 75 x 0.90 x 7 / 3,280 = 174 | | B | 1,262 | 4,140 | | |
| | | V | 23 | 75 | | |
| **LIFT E2 (1,200 p/h) BEGINNER LIFT - MAGIC CARPET** | P1 | T | 1,299 | 4,262 | 110 | 9,650 |
| SAOT: CP = 1,200 x 45.93 x 0.90 x 7 / 3,280 = 106 | | B | 1,285 | 4,216 | | |
| | | V | 14 | 46 | | |
| **LIFT F (1,800 p/h) CRYSTAL BOWL LIFT - DETACHABLE QUAD CHAIR** | P2 | T | 2,285 | 7,497 | 870 | 10,520 |
| SAOT: CP = 1,800 x 771.00 x 0.90 x 7 / 10,000 = 874 | | B | 2,050 | 6,726 | | |
| | | V | 235 | 771 | | |
| **LIFT G (2,800 p/h) CABRIOLET - DETACHABLE 8 PASSENGER PEOPLE MOVER** | P2 | T | 1,262 | 4,140 | 0 | 10,520 |
| SAOT: CP = 2,800 x 216.54 x 0.90 x 7 / 10,000 = 382 | | B | 1,196 | 3,924 | | |
| | | V | 66 | 217 | | |

| KICKING HORSE MOUNTAIN RESORT - MASTER PLAN 2008 | | | | |
|---|---|---|---|---|
| SAOT FORMULA | | | | |
| SAOT: | CP | = | CL x VR x LE x HO / VSD | Last Update: February 5, 2009 |
| KEY | CP | = | effective lift pod capacity | |
| | CL | = | hourly lift capacity (skier and snow boarders/hour) | |
| | VR | = | vertical rise of specific lift (feet) | |
| | LE | = | lift loading efficiency = 0.9 | |
| | HO | = | hours of operation = 7 | |
| | VSD | = | vertical skied per day = 10,000 (except for beginners)(feet) | |

| LIFT DATA | | | | | | | PHASE | | VERTICAL Meters | VERTICAL Feet | CCC 100 | CCC Cumulative |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LIFT H (1,600 p/h) - QUAD CHAIR | | | | | | | P3 | T | 1,500 | 4,921 | 690 | 11,210 |
| SAOT: | CP | = | 1,600 x 688.98 x 0.90 x 7 / 10,000 | = | 694 | | | B | 1,290 | 4,232 | | |
| | | | | | | | | V | 210 | 689 | | |
| LIFT I (1,800 p/h) - DETACHABLE QUAD CHAIR | | | | | | | P3 | T | 1,920 | 6,299 | 2,340 | 13,550 |
| SAOT: | CP | = | 1,800 x 2,066.93 x 0.9 x 7 / 10,000 | = | 2,344 | | | B | 1,290 | 4,232 | | |
| | | | | | | | | V | 630 | 2,067 | | |
| LIFT J (1,800 p/h) - QUAD CHAIR | | | | | | | P3 | T | 2,276 | 7,467 | 1,750 | 15,300 |
| SAOT: | CP | = | 1,800 x 1,545.28 x 0.9 x 7 / 10,000 | = | 1,752 | | | B | 1,805 | 5,922 | | |
| | | | | | | | | V | 471 | 1,545 | | |
| LIFT K (1,800 p/h) - DETACHABLE QUAD CHAIR | | | | | | | P4 | T | 2,173 | 7,129 | 2,780 | 18,080 |
| SAOT: | CP | = | 1,800 x 2454.07 x 0.90 x 7 / 10,000 | = | 2,783 | | | B | 1,425 | 4,675 | | |
| | | | | | | | | V | 748 | 2,454 | | |
| LIFT L (1,200 p/h) - QUAD CHAIR | | | | | | | P4 | T | 1,386 | 4,547 | 0 | 18,080 |
| SAOT: | CP | = | 1,200 x 2,467.19 x 0.9 x 7 / 10,000 | = | 1,865 | | | B | 1,232 | 4,042 | | |
| | | | | | | | | V | 154 | 505 | | |
| LIFT M (2,800 p/h) - DETACHABLE 8 PASSENGER PEOPLE MOVER | | | | | | | P4 | T | 1,425 | 4,675 | 0 | 18,080 |
| SAOT: | CP | = | 2,800 x 2,467.19 x 0.9 x 7 / 10,000 | = | 4,352 | | | B | 1,177 | 3,862 | | |
| | | | | | | | | V | 248 | 814 | | |

| PROJECTED UPHILL CAPACITY BASED ON SKI LIFTS | | | | | |
|---|---|---|---|---|---|
| TOTAL SAOT: | | 24,706 | | TOTAL CCC | 18,080 |

| | | | |
|---|---|---|---|
| SCC* | | 10,140 | Skiers / Day |
| Controlled Recreation Area | | 2,120 | ha |
| Area of Ski Runs** | | 712 | ha |
| Area of Ski Runs as a % of CRA | | 34% | ha |
| Skier Density (Number of Skiers) | | 25.4 | per ha |

* Note: See Table IV.1 "MASTER DEVELOPMENT SUMMARY" on page IV-3 of Appendix I: SKI AREA REPORT.

** Note: See Table IV.9 "TRAIL BALANCE BY SKILL CLASS, PHASE 4 - BUILD-OUT" on page IV-17 of Appendix I: SKI AREA REPORT.

### 3.2.3.6.1. Balanced Resort Capacity

Part of the destination resort concept being developed is that of offering an enhanced resort experience in order to extend the stay of tourists in the Golden region. The vision of a comprehensive mountain resort includes the development of additional opportunities and activities to attract visitors during peak seasons without overwhelming the site capacities, while giving equal attention to summer and off-

season uses.

In winter, additional attractions include activities such as heli-skiing Nordic skiing, spa facilities, convention facilities, snowshoeing, snow tubing, winter ziplines, as well as attractions such as mountain top dining and dog sled rides.

Considerations for success of summer operations include: aesthetics, development of scenic hiking trails, mountain bike trails, the creation of space for summer mountain events and comprehensive services at the Eagle's Eye Restaurant. The successful Grizzly Bear mountain refuge will continue to gain attention from the National parks visitors.

The idea behind Balanced Resort Capacity (BRC) is to arrive at a balance between the amount of development and infrastructure, the number and people capacity of the activities that are available at the resort on a seasonal basis, and the environmental and physical capacities of the site.

According to the *All Season Resort Guidelines* (ASRG), "the definition of the Balanced Resort Capacity (BRC) is the optimum number of visitors that can utilize a resort's facilities per day in such a way that their recreational expectations are being met while the integrity of the site's physical and sociological environment is maintained on a year-round basis."[2]

In the case of a ski resort, the bulk of the visitor capacity results from the ski trail and ski lift component of the resort as indicated by the Comfortable Carrying Capacity (CCC). This is augmented by a number of other facilities and attractions that are listed and tabulated as suggested by the ASRG in Table 3.5, below.

This list of activities and capacities is based on what is expected at build-out over a potential 40 year time horizon. It is important to note, however, that the entire Master Plan including BRC projections and calculations is revisited every five years, therefore providing an opportunity to reassess and refine visitor assumptions over time.

[2] All Season Resort Guidelines, Chapter II: Mountain Resorts, page 28.

*TABLE 3.5.: Balanced Resort Capacity (BRC) Calculations*

| BALANCED RESORT CAPACITY | | | |
|---|---|---|---|
| **SUMMER USE** | **CCC** | **WINTER USE** | **CCC** |
| Golf | 300 | **Lift Serviced Skiing** | **18,080** |
| Mountain Biking (Lift Serviced) | 500 | Nordic Skiing | 400 |
| Mountain Biking (Non-Lift Serviced) | 250 | Heli-Skiing | 77 |
| Grizzly Bear Refuge / Environmental Education | 750 | Snowshoeing | 250 |
| Summer Zip-line | 500 | Snowmobiling | 50 |
| Site Seeing / Fine Dining (Eagles Eye Restaurant) | 2,000 | Site Seeing / Fine Dining (Eagles Eye Restaurant) | 400 |
| Hiking | 250 | Dog Sledding | 50 |
| Shopping | 1,000 | Ice Skating | 150 |
| Spa | 350 | Tubing | 150 |
| Heli-Hiking | 150 | Spa | 300 |
| River Safaris | 150 | Winter Zip-line | 250 |
| Canoeing | 50 | Sleigh Rides | 150 |
| Horseback Riding | 50 | Convention Retreat | 250 |
| Wetland Safaris | 125 | Wolf Centre | 50 |
| Paragliding / Hang-gliding | 25 | Rock Climbing / Climbing Wall | 100 |
| Flyfishing | 50 | Avalanche Training | 25 |
| Rock Climbing / Climbing Wall | 100 | | |
| Convention Retreat | 500 | | |
| Tennis | 50 | | |
| Whitewater Rafting | 100 | | |
| Wolf Centre | 50 | | |
| **Theoretical Total*** | **7,300** | | **20,732** |
| | | | |
| **CCC Total Used for Calculations**** | | | **18,080** |
| **Additional Guest Ratio***** | | | **1.15** |
| **BALANCED RESORT CAPACITY** | **20,792** | | |

*Refer to "Table 7: BRC Example" from the *All Season Resort Guidelines Volume II*.
**Until market data is available for non-ski lift activities only the ski lift CCC is being used in the BRC calculations.
***Refer to Section "II.5.6 Additional Guests" of the *All Season Resort Guidelines Volume II.*

### 3.2.3.6.2. Bed Unit Calculation Model

The ASRG provides an additional guideline called the “Alpine Skiing Bed Unit Calculation Model” that provides a formula that helps MTCA determine how many bed units may be warranted for a given mountain resort application, or, in other words, how many bed units a resort may qualify for.

As explained in the ASRG: “Each step in the Bed Unit Calculation Model assigns point values based on the specific existing and proposed attributes of the mountain resort under consideration in terms of its Balanced Resort Capacity (BRC). The total points determine the appropriate ratio of bed units to BRC.”[3] Table 3.6, below tabulates points according to the ASRG Alpine Skiing Bed Unit Calculation Model.

[3] Ibid.; page 54.

*TABLE 3.6.: ASRG Bed Unit Calculation Model – Points Tabulation*

| II.7 BED UNIT CALCULATION MODELS - MOUNTAIN RESORTS | | | | |
|---|---|---|---|---|
| TABLES FROM CASP ALL SEASON RESORT GUIDELINES | | | CALCULATIONS FOR KHMR | |
| | POINTS | CRITERION | EARNED | COMMENTS |
| II.7.1.1 SKI TERRAIN | 1 | Over 35% of area either advanced or novice terrain | 2 | See Plate IV.4 of Ecosign Report |
| | 2 | 25-35% of area either advanced and/or novice terrain | | |
| | 3 | Close to ideal slope ratio | | |
| | 4 | Ideal slope ratio | | |

| | POINTS | CRITERION | EARNED | COMMENTS |
|---|---|---|---|---|
| II.7.1.2 AVERAGE SKIER DENSITY PER HECTARE (SKI TRAIL AREA/CCC) | 0 | > 40 /ha | 3 | 25 skiers/ha including gladed ski runs |
| | 1 | 30 - 40 /ha | | |
| | 2 | 25 - 30/ha | | |
| | 3 | 20 - 25/ha | | |
| | 4 | 15 - 20/ha | | |

| | POINTS | CRITERION | EARNED | COMMENTS |
|---|---|---|---|---|
| II.7.1.3 ACCESSIBILITY | 0 | Less than 0.5 hour | 5 | Calgary is 2.5-3 hours away. |
| | 1 | 0.5 to 1 hour | | |
| | 2 | 1 to 1.5 hours | | |
| | 3 | 1.5 to 2 hours | | |
| | 4 | 2 to 2.5 hours | | |
| | 5 | 2.5 to 3 hours | | |
| | 6 | Greater that 3 hours | | |

| | POINTS | CRITERION | EARNED | COMMENTS |
|---|---|---|---|---|
| II.7.1.4 ACCESS RELIABILITY | 1 | Highly reliable (main highway with short mountain road) | 1 | Near Trans-Canada Highway |
| | 2 | Somewhat unreliable (snow and avalanche closures) | | |

| | POINTS | CRITERION | EARNED | COMMENTS |
|---|---|---|---|---|
| II.7.1.5 POPULATION WITHIN 250 KILOMETERS | 1 | 0 to 30,000 | 5 | Calgary is approx. 250 km away |
| | 2 | 30,000 to 100,000 | | |
| | 3 | 100,000 to 250,000 | | |
| | 4 | 250,000 to 500,000 | | |
| | 5 | 500,000+ | | |

| II.7.1.6 UNIQUE EXISTING QUALITIES OTHER THAN SKIING | POINTS | CRITERION | EARNED | COMMENTS |
|---|---|---|---|---|
| | 1 | Nothing unusual | 3 | In the midst of Canada's finest and most accessible National Parks |
| | 2 | Regional attraction | | |
| | 3 | National attraction | | |

| II.7.1.7 ALL SEASON FACILITIES AT THE MOUNTAIN RESORT | POINTS | CRITERION | EARNED | COMMENTS |
|---|---|---|---|---|
| | 0 | Limited (undeveloped with little potential) | 3 | When combined with the nearby Golden Golf & Country Club, the facilities can be considered as "Excellent." |
| | 1 | Fair (some potential for recreation facilities) | | |
| | 2 | Good (tennis courts, swimming pool, some mountain biking, etc.) | | |
| | 3 | Very Good (18 hole golf course, formalized mountain biking, tennis, swimming pool) | | |
| | 4 | Excellent (several 18 hole golf courses, 6 or more tennis courts, swimming pool, arena, hiking, lift serviced mountain biking, spa, beaches, water park, etc.) | | |

| II.7.1.8 POTENTIAL LENGTH OF SEASON (based on natural and manmade snow) | POINTS | CRITERION | EARNED | COMMENTS |
|---|---|---|---|---|
| | 0 | Less than 100 days | 4 | |
| | 1 | Less than 115 days | | |
| | 2 | 115 to 130 days | | |
| | 3 | 130 to 150 days | | |
| | 4 | More than 150 days | | |

| II.7.1.9 TYPE OF SNOW | POINTS | CRITERION | EARNED | COMMENTS |
|---|---|---|---|---|
| | 0 | Dry less than 25% of season | 3 | Snow at the upper elevations is dry for over 90% of the season. |
| | 1 | Dry 25 to 50% of season | | |
| | 2 | Dry 50 to 75% of season | | |
| | 3 | Dry 75 to 90% of season | | |
| | 4 | Dry over 90% of season | | |

| II.7.1.10 WEATHER CONDITIONS | POINTS | CRITERION | EARNED | COMMENTS |
|---|---|---|---|---|
| | 1 | Less than 1,000 hours | 3 | Source: Environment |
| | 2 | 1,000 to 1,500 hours | | |

| | | | | |
|---|---|---|---|---|
| | 3 | 1,500 to 2,000 hours | | Canada Climate Normals for Golden. |
| | 4 | Greater than 2,000 hours | | |

| | POINTS | CRITERION | EARNED | COMMENTS |
|---|---|---|---|---|
| **II.7.1.11 EXPRESS LIFTS** | 0 | None | **2** | |
| | 1 | Less than 50% of aerial lifts | | |
| | 2 | More than 50% of aerial lifts | | |

| | POINTS | CRITERION | EARNED | COMMENTS |
|---|---|---|---|---|
| **II.7.1.12 NEED FOR EMPLOYEE (RESIDENT RESTRICTED) HOUSING** | 0 | 0% of employee / resident restricted bed base provided for at the resort | **4** | 100% of the required 10% of BRC is provided for at the resort. |
| | 1 | 25% of employee / resident restricted bed base provided for at the resort | | |
| | 2 | 50% of employee / resident restricted bed base provided for at the resort | | |
| | 3 | 75% of employee / resident restricted bed base provided for at the resort | | |
| | 4 | 100% of employee / resident restricted bed base provided for at the resort | | |

| **II.7.2 POTENTIAL NEED AND CALCULATION OF BED UNITS** | TOTAL POINTS RATING | TOTAL % OF BRC | EARNED | COMMENTS |
|---|---|---|---|---|
| | 30 | 79% | **38** | |
| | 31 | 84% | | |
| | 32 | 89% | | |
| | 33 | 95% | | |
| | 34 | 100% | | |
| | 35 | 105% | | |
| | 36 | 110% | | |
| | 37 | 115% | | |
| | 38 | 120% | | |
| | 39 | 125% | | |
| | 40 | 130% | | |
| | 41 | 136% | | |
| | 42 | 141% | | |
| | 43 | 146% | | |

| | | | | |
|---|---|---|---|---|
| | 44 | 151% | | |
| | 45 | 156% | | |
| | 46 | 160% | | |

| II.7.3 APPLICATION (Example) | BALANCED RESORT CAPACITY | BED UNIT CALCULATION MODEL (SKI) POINT RATING | ASSOCIATED PERCENTAGE | ALLOCATED BED UNITS |
|---|---|---|---|---|
| | 5,000 | 30 | 79% | 3,950 |
| | 5,000 | 34 | 100% | 5,000 |
| | 5,000 | 45 | 156% | 7,800 |

| EARNED BED UNITS | BALANCED RESORT CAPACITY | BED UNIT CALCULATION MODEL (SKI) POINT RATING | ASSOCIATED PERCENTAGE | ALLOCATED BED UNITS |
|---|---|---|---|---|
| | **20,792** | **38** | **120%** | **24,950** |

### 3.2.3.7. Parking Calculations

The total required parking is based on the Comfortable Carrying Capacity (CCC) of the ski area of the resort. The current assumption of the Master Plan is a mountain design capacity with a CCC of 18,080 and a destination resort base that achieves the optimum development of the bench lands at the foot of the mountain. The bed unit number is derived from the calculations done following the MDA formula.

The CCC is a theoretical number, because the actual number of skiers is significantly reduced by occupancy rates at the resort and by the utilization rate of the lifts generating the uphill capacity. A utilization rate in the order of 40% would be a reasonable assumption based on current trends. However, parking will be calculated for a peak day and calculation will start considering service for maximum capacity.

It is assumed that day visitors will make up ¼ of the CCC, amounting to 4,520 day visitors on peak days. 10% (452) are likely to arrive by bus, leaving 4,068 to arrive by car. A total of 1,519 day visitor parking spots will be provided at buildout. This amounts to an average of 2.68 visitors/car, which is within the 2.5-3.0 visitor/car range recommended by CASP.

A total of 18 bus parking spots will also be provided, equalling one third more than the 12 spots (assuming an industry standard average of 40 visitors/bus) required to service day visitors.

The Master Plan also includes more than 6,653 parking spaces provided as part of the tourist residential development, as well as an additional 89 parking spaces for administration, maintenance and emergency services. The total number of parking spaces at the resort at buildout will be 8,261 – capable of

servicing over 25,000 people.

The Master Plan includes an ultimate day skier parking area below the main lift departure plaza, connected by aerial transportation (a pulse gondola is proposed) to the plaza. The plan shows two potential phases for expanding the day parking areas, and both location will have, in the end, easy access to a departure lift. In the interim, if the installation of the lifts were to be delayed, day skiers in the new parking areas could serviced by a shuttle bus.

***TABLE 3.7.: Parking Calculations***

| | NUMBER OF SPACES | PERSONS PER VEHICLE TYPE | TOTAL PEOPLE |
|---|---|---|---|
| CARS | 1,519 | 3 | 4,557 |
| BUSES | 18 | 40 | 720 |
| TOTAL | | | 5,277 |

### 3.2.3.8. Forestry Considerations

Much of the Controlled Recreation Area is covered with forested areas that will require ongoing management. These will surround the built up base area of the resort. Areas of proposed land purchase and other base facilities on the leased land are required to be excluded from the Forest Land Reserve and Provincial Forest. The balance of the resort will remain in the Provincial Forest and be available for Forest Management consistent with the needs of the Ski Area and the rights granted to KHMR under the Land Act.

#### 3.2.3.8.1. Forest Health

KHMR will conduct activities so as to minimize the occurrence of potentially destructive forest pests, such as spruce bark beetles and mountain pine beetles. KHMR management will work with a Forester to manage and monitor Forest Health issues and coordinate with MoF as appropriate.

#### 3.2.3.8.2. Wildfire

KHMR will develop and work within the context of the Forest and Range Practices Act (FRPA) and Wildfire Act and Regulations to prevent and control wildfire. KHMR will work with the Ministry of Forests or their licensee to assist in conducting, as required, fire prevention and suppression activities outside of the base area (e.g. disposal of logging slash). It is expected that the Ministry of Forests will attempt to minimize the impacts to KHMR while conducting its operations.

The Master Plan and its mandatory guidelines establish management practices that will reduce resort exposure to wildfire as outlined in Section 3.6.11. Fire Protection.

#### 3.2.3.8.3. Logging/Silviculture

Salvage harvest entries may be required to recover timber damaged by fire, insects, disease, and wind-throw. This applies within the base area and the Controlled Recreation Area. Salvage operations in the proximity of the base area will be planned and implemented by KHMR or a licensee, in consultation with the Ministry of Forests. Timely salvage operations are a priority to mitigate any potential adverse impacts to adjacent forests, and to minimize losses to salvageable fibre.

Normal, planned harvest and silviculture operations will occur in proximity to the base area and the Controlled Recreation Area. KHMR will participate in the operational and strategic planning for these activities and with other planning processes and will assist the Ministry of Forests to minimize impacts to the resort when harvest and

silviculture operations are conducted in proximity to the resort.

#### 3.2.3.8.4. Forest Access

Access structures for timber extraction and silviculture operations will be required during the course of normal and salvage operations. This will involve the use of existing improvements and the development of new roads, trails and landings. KHMR will work with the Ministry of Forests while it exercises its mandate, to minimize impacts to the CRA or KHMR. Visual qualities are an important consideration for resource management on crown land and the Kootenay Boundary Land Use Plan confirms the objective that resource activities take into account the visual landscape from the perspective of the community of Golden and the Trans Canada Highway.

KHMR will also practice visual management techniques in the development of resort facilities as indicated below.

#### 3.2.3.8.5. Visual Landscape Management on Surrounding Crown Lands

In accordance with the Forests and Range Practices Act of British Columbia, the Kootenay Boundary Land Use Plan and the Columbia District Visual Landscape Management Policy, the Ministry of Forests addresses Visual Landscape Management within the context of forest harvesting. Visual Landscape Management is not at this time formally practised by the Ministry of Forests from any point within the proposed KHMR base and operating areas.

***EXHIBIT 3.18.: Existing Base Area***

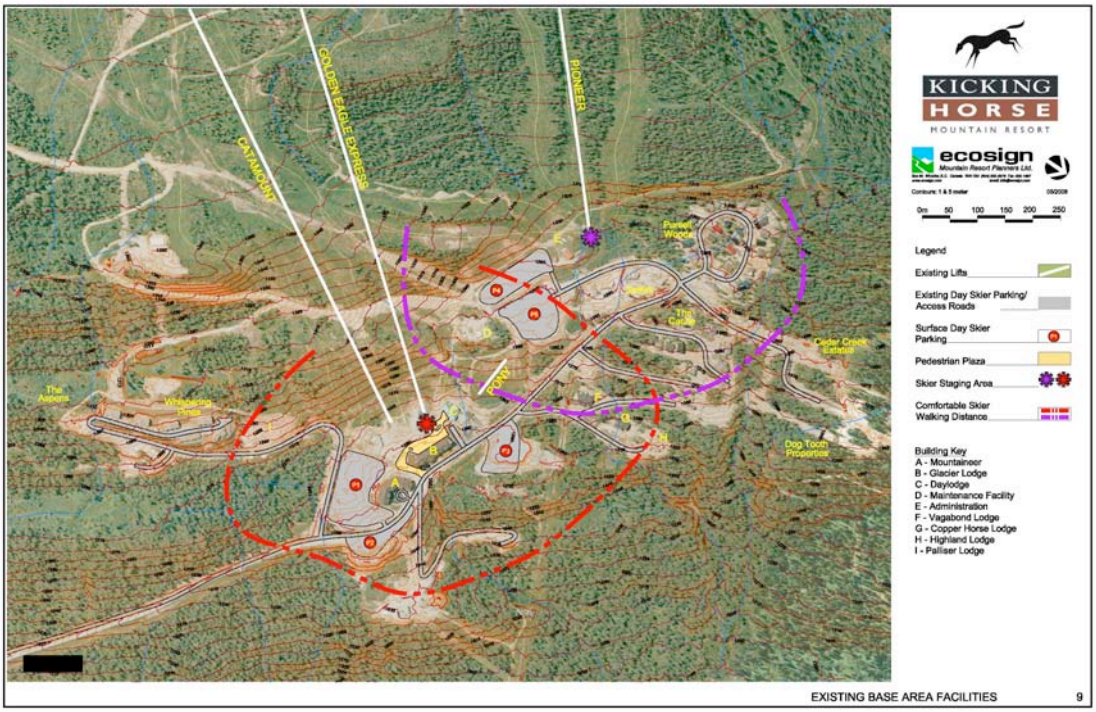
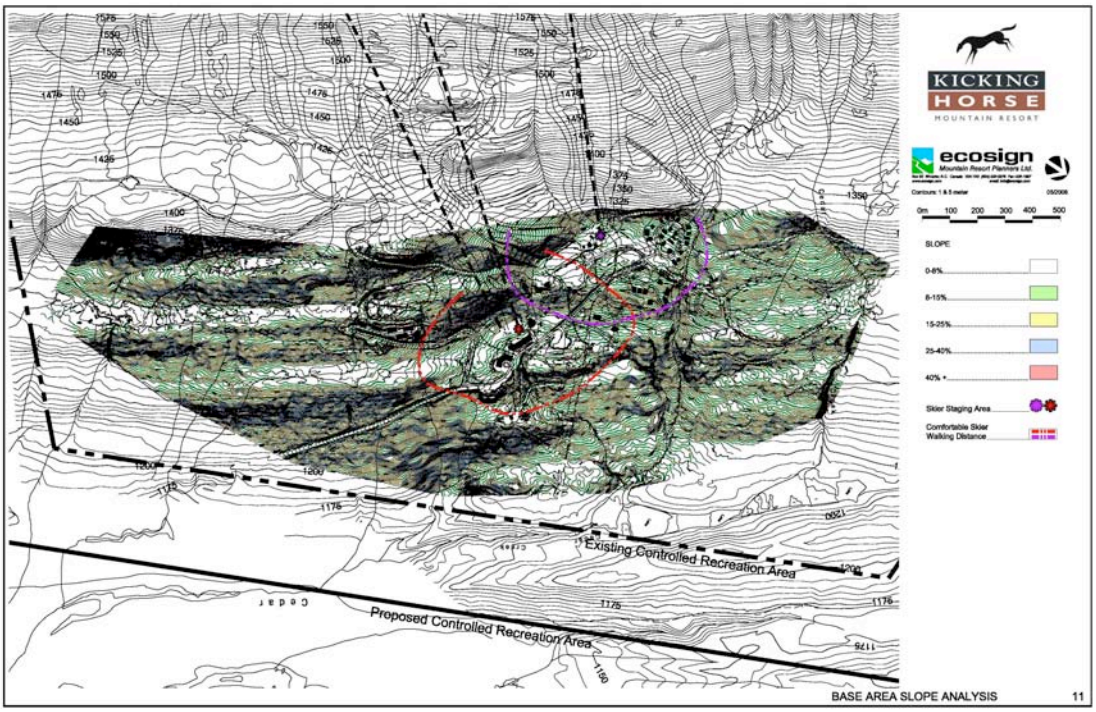



***EXHIBIT 3.19.: Base Area Slope Analysis***



## 3.3. RESORT BASE DEVELOPMENT PLAN

### 3.3.1. Overview of Resort Base Area

Day skiers will park in one of the day parking areas or be transported by bus. KHMR operates a bus service from Golden and from Banff. It is also anticipated that some of the hotel and heli-ski guests will arrive by bus.

***EXHIBIT 3.20.: Resort Entry Signage Concept***

KHMR has developed in phases and will continue to develop and expand from a central nucleus organized around the gondola and skier arrival plaza surrounded by shops and food and beverage outlets connected by pedestrian areas. The resort has developed and grown with the condotel units, bed and breakfast units and townhouses along the roads in the resort base.

The most remote ski lift stations will be at the two ends of Kicking Horse Mountain Resort, in the traditional style of Alpine complexes. Several lifts will also converge at the gondola base. The lifts will still be within a convenient distance from the resort's central plaza and the distance will be utilized to collect skiers from the more distant components of Kicking Horse Mountain Resort. This plan will maximize the holiday enjoyment of longer term guests as well as of day skiers, minimizing conflict.

A preliminary phasing plan for the resort is outlined in the concept plans. The resort will be very compact and have a relatively high density, minimizing the footprint relative to the West Bench. Height will be limited to about three to four storeys, except for the hotels, which may rise to a slightly greater height, perhaps equivalent to two or three more storeys of residential space. Steep roofs will be emphasized, contributing to a greater impression of height than the number of storeys would indicate. The hotels will be able to stand out among the other buildings with a strong presence, without overpowering the rest of the construction.

***EXHIBIT 3.21.: Resort Village Streetscape Concept***

The design will focus on creating compulsory building envelopes and character through mandatory Design Guidelines and a mandatory building sequence determined

by the design stages. In order to minimize the footprint, it is proposed that internal private roads will be kept to the smallest possible rights-of-way. It is intended that public parking will be limited to designated areas and drop off points. Public access by bus will be encouraged, by the planned use of shuttle buses.

Much of the resort will be developed under a bare land strata title concept, to avoid unsightly road regulations and waste of space. At completion, the resort will include all the necessary services, including a fire-fighters' station for a volunteer fire department, a first aid emergency station, provision for garbage collection and transfer, and the necessary commercial and convention facilities. There will be limited convention facilities in the hotels and specialized educational programs. In addition to expanded services of shops and skiers' facilities, the Resort will be the centre of a Mountain Resort Association, managing the interests of all the independent participants in the development.

Various stages within the phasing will determine resort growth according to the market viability. The planned, slow rate of growth, emanating from the development clusters to be created in linear sequence in the opposite directions from the central plaza will be more in keeping with the historical way resort development occurs naturally, and will result in a high quality of design and development. To assist this process, it is intended that all development in the area be under one overall architectural guideline and control system, as detailed in this Master Plan. The anticipated slow development pace will greatly increase the possibility of creating something natural and true to the spirit of the small and incremental growth of the alpine resorts and of the National Parks.

***EXHIBIT 3.22.: Resort Lodge Concept***

The gradual growth of the resort will also allow the identification, on a step by step basis, of the need for on-site staff accommodation and to plan it progressively according to the development phases. The expanded Master Plan is based on the concept that approximately 10% of the bed base should be developed for staff accommodation on site, despite the proximity of the Town of Golden, to facilitate the establishment of a nucleus of permanent on site resort staff.

The expanded resort design is the result of the study of the constraints on development arising from the evaluation of all factors affecting the Columbia River Valley. The consequence remains a modest site coverage in the area that is anticipated to have the minimum impact and to be the most positive for the aesthetics of the Valley.

### 3.3.2. Resort Hotel Facilities

KHMR will provide for hotels to be located in the base area near the bottom of the ski runs. They will provide accommodation for snowsports enthusiasts and visitors generally escaping to an alpine environment. It is anticipated that these initial facilities will form the nucleus of all activities. It would allow part of the heli-ski operations to be moved from the heli-plex near the Trans-Canada Highway across the Valley to the

resort, providing comfortable access to the surrounding glaciers and mountains for hotel guests. A convenient helicopter landing site has been provided in the Master Plan.

The hotel facilities will be near the base lift station and the ticket office, ski school centre and rental shops. Shops and restaurants in the hotel facilities will service the skiers as well as the hotel patrons and day visitors.

The hotel facilities, like the rest of the resort base, will emphasize stone and heavy timber architecture, in the style and tradition of National Parks heritage. They will be tucked against the mountain in the forest at the base of the ski runs and will offer ski in ski out access to the mountain.

***EXHIBIT 3.22.: Resort Hotel Concept***

There will generally be a basement service level in the hotel facilities for storage, as well as for mechanical services, special hotel requirements, laundry facilities, hotel and restaurant provisions, cold storage, garbage rooms, etc. The ground floor will include entry lobby, foyer, administration offices, and access to the restaurants, coffee shops, holding bars, activity and meeting rooms, health club facilities and pools. It will feature high ceilings. Above it will be two to three storeys of hotel rooms. The top floor will be below steep sloping roofs that will allow for in-suite loft conditions. All guest rooms are expected to have excellent views. Swimming pools and spas will be built utilizing the space that is most exposed to the sun and views.

### 3.3.3. Townhouses

Townhouses in small clusters are planned along road loops near the resort main density area, nestled among the trees, overlooking the resort and the Columbia Valley. Townhouse types will vary. Some units will be designed for an uphill configuration, with a garage covered by the unit, others for a downhill position, with car parking nearby. The majority of the units will be designed for four beds. The townhouses will be primarily two stories of wood frame construction, in character with the rustic mountain setting of the resort. It is expected that most of the townhouses will form part of one or more strata corporations. Their common areas may include amenities such as tennis courts, a swimming pool and outdoor skating areas. To allow flexibility of participation in the rental pool, townhouse units will be sold with an option to participate in a rental pool managed by KHMR.

***EXHIBIT 3.23.: Selkirk Townhouses at KHMR***

*EXHIBIT 3.24.: Whispering Pines Townhouses at KHMR*

### 3.3.4. Condotel Units

Condotel buildings will be developed in the resort core along the pedestrian street. The buildings will have commercial space at the ground level, including retail and some office space catering to project uses as well as to educational and convention facilities. On the floors above the commercial spaces there will be residential condotel apartment units, at least in part managed through a rental pool, and in part dedicated to timeshare developments. To ensure participation in either a rental pool or time share scheme, a Section 219 Land Use Covenant can be attached to the strata title for most condotel units in the resort, providing that the condotel units in a rental pool will be managed by one of the hotel facilities named in the covenant as explained in Section 8.5 of this Master Plan.

The condotel units will have a variety of configurations, with interesting loft arrangements on the top floors. Height will be limited to three to four stories, allowing traditional wood frame construction. Unit sizes will vary. Larger units will be designed to qualify for four bed units, smaller apartments for two bed units. A configuration of three bed units is also possible, with a master bedroom and a second bedroom of small size, large enough only for a single bed. The average is calculated to yield three beds per condotel unit.

***EXHIBIT 3.25.: Condotel Concept***

### 3.3.5. Single Family Chalets

Single-family chalet areas will be developed on lots along resort roads primarily toward the north and south expansion areas of the site, distributed over well treed area according to mandatory design and landscaping guidelines that will maintain the forest, concealing the houses among the trees. The houses will be of rustic architecture, in keeping with the mountain tradition of wood and stone, timber frame and log homes coming from the tradition of National Park architecture. Chalets are required to be built according to the architectural guidelines that form part of a registered building scheme filed on title, which forms the basis of evaluation for permission to develop. It is planned

that the chalets be located near the ski areas to minimize impacts on the natural environment of the West Bench and provide ski-in, ski-out opportunities.

***EXHIBIT 3.26.: Single Family Chalet Concepts***

### 3.3.6. Building Standards: Leavestrips

In order to protect the aquatic resources of the Columbia River system, development of the site will follow the recommended leavestrip requirements either side of fish bearing creeks in the resort base area. Specifically, the leavestrips (no disturbance zones) will protect each side of water flows within the context of the proposed plan. The consulting team has provided a Water Management Plan for the development area and have mapped the existing streams, wetlands, sensitive areas and drainages. The 1:200 year floodplain for Cedar Creek and its tributaries have been identified. The storm water management plan will ensure that snow melt and storm run-off is controlled and sufficiently detailed to prevent flooding or erosion of stream banks within and downslope of the development area. The Cedar Creek floodplain, wetlands and natural hazard areas are to be avoided within the base area and mountain development. Base area development shall abide by the Riparian Areas Regulation of the *Fish Protection Act* (British Columbia).

### 3.3.7. Design Guidelines

See Appendix B of this Master Plan.

### 3.3.8. Place of Worship

KHMR is planning to determine a suitable location in cooperation with the religious community in Golden in order to allow the development of a place of worship acceptable to skiers. This will be conveniently located both for winter and summer access. Due to the small size of the overall development, it is expected that it will serve primarily as a skier's chapel for the various Christian denominations that probably represent the majority of the anticipated visitors. It is planned that it may be available for other religious services to the extent that it will be possible in order to serve the entire community.

## 3.4. EAGLE'S EYE RESTAURANT

KHMR's mountaintop "teahouse" – the Eagle's Eye restaurant, and its gondola terminal have created an iconic statement for KHMR, widely acclaimed in numerous magazines and newspapers. The restaurant is a building of rustic mountain style, open to views, with a solid feeling of a mountain refuge. A loft providing two suites for sleeping accommodation under the sloping roof has been provided as an addition attraction.

The Eagle's Eye Restaurant has generated numerous accolades. According to *Frommer's*:[4]

> Canada's highest-elevation restaurant, the Eagle's Eye towers above the new Kicking Horse Resort. Diners take the ski gondola 1,200m (3,936 ft.) up to 2,410m (7,905 ft.) above

[4] http://www.frommers.com/destinations/golden/D50842.html

sea level to reach this dining room with a 360-degree view of the nearby Rocky, Selkirk, and Purcell mountain ranges. With a panorama like this, the food needn't be good; it's excellent, however, with an emphasis on Alberta lamb and beef, British Columbia salmon and oysters, and seasonal specials like pistachio-crusted halibut with truffled potatoes.

The location of the teahouse and of the gondola's top terminal area was selected to fit both winter and summer operations since the gondola's most obvious return on investment is from year-round operation. A sizeable area for the terminal and for a teahouse was selected at a 2,350 m. peak of the mountain crest line. The site consisted of two peaks and a small depression between them, exceeding two acres of manageable terminal and restaurant space. The lift profile at the break-over, prior to entering the terminal, is convex, keeping the gondolas near the ground and thereby reducing the wind exposure and the line evacuation height. There is a fair amount of wind protection given by the westerly knob and secondary ridgelines descending to the southwest and northwest. The gondola landing and walk to the teahouse is easily connected.

***EXHIBIT 3.27.: Eagle's Eye Restaurant***

## 3.5. YEAR ROUND RECREATION

KHMR has been developed as a four season, first class destination resort. Accordingly, both visitors and residents will have access to a wide variety of recreational activities throughout the year both at the resort itself and within easy reach of the resort. The addition of the golf course is an important component of this strategy for the summer season.

### 3.5.1. Heli-Skiing and Heli-Sightseeing

Purcell Helicopter Skiing is a successful heli-ski company established in 1973 by Rudi Gertsch and is based in Golden. The possibility of achieving an ideal integration of heli-skiing and Kicking Horse Mountain Resort, establishing a new additional departure point in the resort for the helicopters and utilizing the resort hotel facilities for overnight heli-skiing clients is one of the current objectives.

KHMR has taken into account concerns raised by Purcell Heli-Skiing regarding some initially proposed lift locations, which would have eliminated one of its most utilized bad weather ski runs, and has developed a plan that would maintain, for the foreseeable future, the upper bowl leading to Dogtooth Peak for the use of heli-skiers. This area had been proposed for chair lift access in the original Ted Farwell plan and the Brent Harley preliminary concept, but it is not indispensable to provide ample expansion and excellent additional skiing to KHMR. As well, the original Farwell plan did not provide access to the top of the mountain, which is not skiable from the Dogtooth Crest. Access to the top provides outstanding views to the west for sightseeing visitors.

On this basis the Master Plan was developed with the endorsement of Rudi Gertsch and is still studied for the ultimate expansion concept allowing cooperation between Kicking Horse Mountain Resort and Purcell Helicopter -Skiing. It is envisioned that the new hotel facilities and a heli-ski pad in its proximity will facilitate the expansion of Purcell Helicopter Skiing with the introduction to heli-skiing from Kicking Horse Mountain Resort.

### 3.5.2. Nordic Skiing

As noted above, KHMR is committed to working with the Golden Nordic skiers and to maintain and expand Nordic ski trails through the resort as a complement to Alpine snowsports. The ski trails may also be used as hiking and cycling trails in the summer. The land use plan of the resort base indicates areas where the cross-country ski trails can double as summer linear parks or hiking trails. KHMR has made a commitment to provide a staging area for cross country skiers within the resort base, and to relocate any of the cross country ski trails that are affected by resort development, at its expense, with trails that are generally equivalent. Such trails are to maintain the connection to the existing network outside the resort base and the CRA. Trails will be replaced metre-by-metre.[5] Conflicts with downhill skiing runs will be avoided to promote

[5] Please see Appendix L, response letter to GBRAC comments for further discussion and commitments.

greater safety and maintenance of the cross-country ski experience.

The West Bench area is well positioned to become a world class Nordic skiing venue. KHMR supports the plans and the vision of the Dawn Mountain Nordic Trails master plan and the expansion plans of KHMR have been developed to allow both areas of sporting activities to grow together in harmony. The revised trail network is detailed in the project drawings included in Appendix A and are the result of the common planning efforts. These trails were identified during the planning and consultation process and the proposed Master Plan was modified to safeguard the core Nordic trails. KHMR will work with the Golden Nordic Club & MTCA to keep the trail network as a (Winter) Public Recreation Site.

MTCA hired an expert consultant, Don Gardner, to review the Dawn Mountain trail network and to suggest mitigation measures where this Master Plan proposal may impact. the Nordic trail network. Mr. Gardner's work resulted in a report called "Dawn Mountain Recreation Site Nordic Trails," which suggests some mitigation measures as well as improvements and an expansion of the Nordic skiing trails and area in order to help the Nordic club achieve goals of safety and quality, as well as the ability to host World Cup races in the near future. Mr. Gardner's report, and the Nordic Club's expansion plans outside of the CRA is not part of the KHMR Master Plan, but exists as a parallel planning document acknowledged by this Plan and included for reference in Appendix M.

KHMR will work to achieve the recommendations of the Gardner report. This includes moving, if necessary and as practically possible, the base terminal locations of lifts H and I uphill, as recommended by the report in order to accommodate new Nordic race trails. The exact locations of the trails and lift terminals will be determined following site surveying and detailed design.

#### 3.5.2.1. Nordic Trail Management

KHMR has met and continues to work with the Golden Nordic Club to define a management and operating plan for the Nordic trail system. This will include a commitment to seasonal separation for the purposes of Nordic skiing and golf operations. For example, November 15th has been suggested as an appropriate beginning date for Nordic Skiing and April 30th would mark the beginning of golf operations. Appropriate signage, trail map information, and information packages that will be made available to resort visitors and owners will also be developed. A pilot program for part-time labour at the trail head as well as a seasons pass system will also be developed in conjunction with KHMR.

The Master Plan expansion also proposes additional parking and staging opportunities close to the proposed multi-use clubhouse, which can be utilized as a Nordic skiing day lodge in winter. At least 100 parking spaces will be dedicated and managed for the purposes of Nordic skiing as requested by the club (see mapping in Appendix A).

KHMR will commit to communicate with the Nordic club as the development moves towards the Nordic ski trails, to ensure that the scheduling and extent of

construction is conveyed in a timely manner. Recent correspondence between Steve Paccagnan, President of KHMR, and Jeff Dolinsky, President of the Golden Nordic Ski Club Society, outline the extent of the cooperation between the two recreational groups.

Table 3.8. below tabulates the length of the proposed trail network segments. The proposed network will provide an additional 2.15 kilometres of trails.

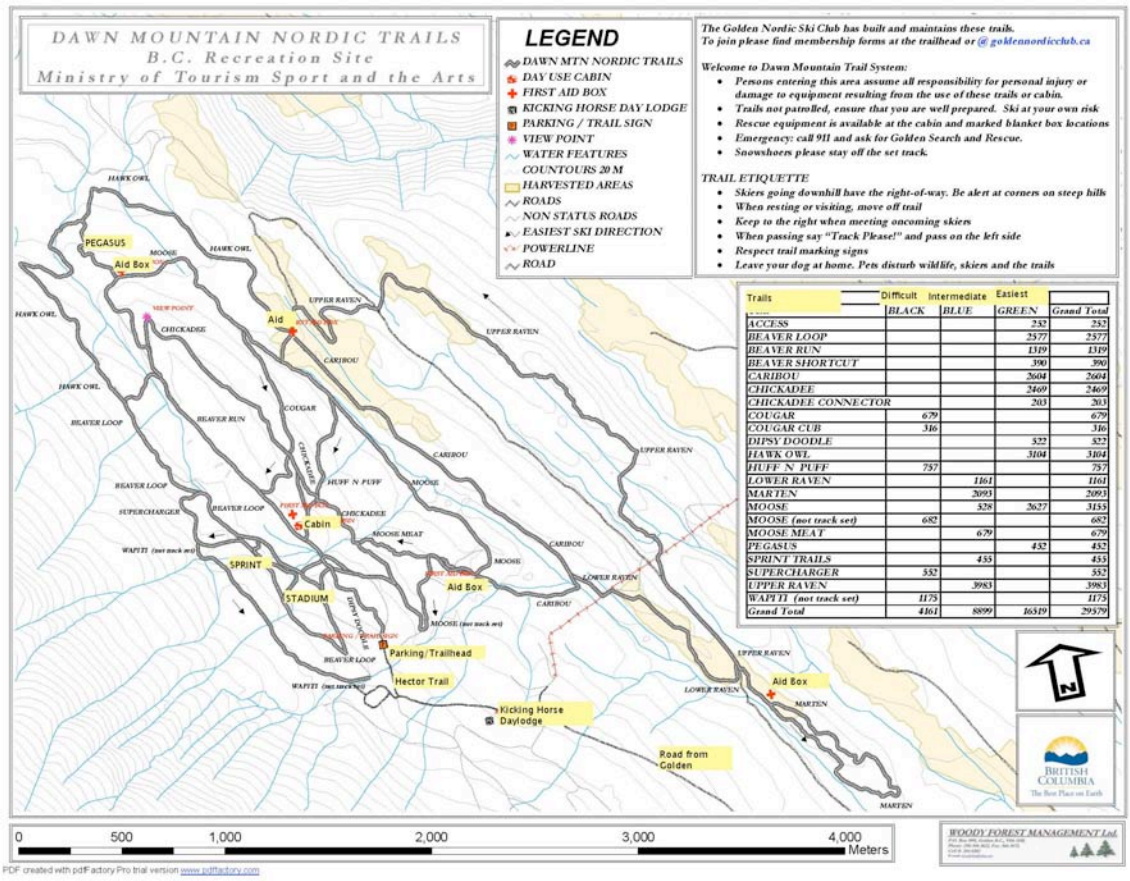
### *TABLE 3.8.: Nordic Ski Trails Comparison: Existing vs. Proposed*

**Nordic Cross Country Ski Trails**

| Nordic Trails | Existing Trails | | Proposed Trails | |
|---|---|---|---|---|
| Trail Segment | meters | km | meters | km |
| 1 | 10.688 | 0.01 | 146.672 | 0.15 |
| 2 | 1,169.04 | 1.17 | 1405.872 | 1.41 |
| 3 | 2,016.33 | 2.02 | 139.367 | 0.14 |
| 4 | 161.082 | 0.16 | 298.345 | 0.30 |
| 5 | 279.529 | 0.28 | 376.958 | 0.38 |
| 6 | 221.282 | 0.22 | 73.847 | 0.07 |
| 7 | 1,134.43 | 1.13 | 533.536 | 0.53 |
| 8 | 298.345 | 0.30 | 207.336 | 0.21 |
| 9 | 376.958 | 0.38 | 169.194 | 0.17 |
| 10 | 73.847 | 0.07 | 188.096 | 0.19 |
| 11 | 533.536 | 0.53 | 311.169 | 0.31 |
| 12 | 385.268 | 0.39 | 74.677 | 0.07 |
| 13 | 631.91 | 0.63 | 502.918 | 0.50 |
| 14 | 207.336 | 0.21 | 259.414 | 0.26 |
| 15 | 146.755 | 0.15 | 227.437 | 0.23 |
| 16 | 240.903 | 0.24 | 311.406 | 0.31 |
| 17 | 3,047.26 | 3.05 | 641.392 | 0.64 |
| 18 | 1,571.30 | 1.57 | 320.896 | 0.32 |
| 19 | 326.718 | 0.33 | 297.349 | 0.30 |
| 20 | 213.229 | 0.21 | 121.589 | 0.12 |
| 21 | 188.096 | 0.19 | 157.24 | 0.16 |
| 22 | 553.802 | 0.55 | 633.968 | 0.63 |
| 23 | 1,408.40 | 1.41 | 849.64 | 0.85 |
| 24 | 575.36 | 0.58 | 891.986 | 0.89 |
| 25 | 670.507 | 0.67 | 225.185 | 0.23 |
| 26 | 311.179 | 0.31 | 168.256 | 0.17 |
| 27 | 2,453.00 | 2.45 | 251.237 | 0.25 |
| 28 | 521.646 | 0.52 | 146.96 | 0.15 |
| 29 | 3,152.04 | 3.15 | 903.613 | 0.90 |
| 30 | 428.373 | 0.43 | 435.763 | 0.44 |
| 31 | 3,926.55 | 3.93 | 1064.762 | 1.06 |
| 32 | 2,056.06 | 2.06 | 939.791 | 0.94 |
| 33 | | | 2912.568 | 2.91 |
| 34 | | | 2158.529 | 2.16 |
| 35 | | | 545.828 | 0.55 |
| 36 | | | 410.602 | 0.41 |
| 37 | | | 1480.488 | 1.48 |
| 38 | | | 986.283 | 0.99 |
| 39 | | | 1188.219 | 1.19 |
| 40 | | | 113.379 | 0.11 |
| 41 | | | 40.744 | 0.04 |
| 42 | | | 86.883 | 0.09 |
| 43 | | | 17.708 | 0.02 |
| 44 | | | 756.544 | 0.76 |
| 45 | | | 44.072 | 0.04 |
| 46 | | | 53.918 | 0.05 |
| 47 | | | 139.833 | 0.14 |
| 48 | | | 51.182 | 0.05 |
| 49 | | | 242.064 | 0.24 |
| 50 | | | 1133.905 | 1.13 |
| 51 | | | 3032.668 | 3.03 |
| 52 | | | 143.005 | 0.14 |
| 53 | | | 239.277 | 0.24 |
| 54 | | | 326.858 | 0.33 |
| 55 | | | 2055.505 | 2.06 |
| | | | | |
| **Subtotal** | **29,290.75** | **29.29** | **31,435.93** | **31.44** |
| | | | | |
| **Total New Trails** | **meters** | **km** | Last Updated: | |
| | **2,145.18** | **2.15** | November 12, 2008 | |

**Notes: These trails do not include forestry roads or KHMR trails.**

*EXHIBIT 3.28.: Dawn Mountain Nordic Trails (Existing)*




## 3.5.3. Snowmobiling

Golden has an established and strong reputation as an excellent venue for snowmobiling.

The Golden Guides Adventure Centre at KHMR offers guided snowmobiling from the KHMR base. Half-day or full-day tours are offered utilizing current-generation Ski-Doo snowmobiles. Tours are available through KHMR's central reservation system.

In addition, the Golden Snowmobile Trail Society maintains a number of groomed trails in the area, with a variety trails catering to the full range of beginner to advanced riders. The Society is well-organized. It has reported that there is a large visiting group of people per day that stage snowmobile trips out of Golden on winter weekends. Visiting snowmobilers typically ride for two or three days.

The society's closest established trail to KHMR is named Gorman. This is an expert rated trail and its trailhead is off of the Dogtooth Forest Service Road near the Golden Golf and Country Club. The Society's trail maps, along with grooming information, trail pass fee information, and relevant links are available from its website located at:

www.snowmobilegolden.com

The Golden Backcountry Recreation Access Plan (GBRAP) Amendment includes the following reference, which KHMR supports: “One winter motorized corridor is designated through the Nordic ski zone to allow the snowmobile commercial tenure holder to access the Dogtooth FSR from the Kicking Horse Resort area. A management agreement should be implemented between this commercial operator and the Dawn Mountain Nordic Society. The success of this corridor will be periodically reviewed, to ensure that non-motorized activities are not jeopardized, and that public snowmobiling does not occur on this corridor. If this corridor is not managed properly by the tenure holder, then revisions to this zonation will occur.”

KHMR work with the Nordic Ski Club and the snowmobile commercial tenure holder to create an operating management agreement with respect to the Dawn Mountain Nordic Trails and corridor. The snowmobile commercial tenure holder has had dialog with the President of the Nordic Club and is prepared to meet with to work towards safe winter operating plans.

KHMR management will restrict public snowmobiling throughout the CRA (excluding use for resort operations and Nordic Club needs) and will help manage restrictions and permitted uses. This will include no public snowmobiling within the CRA or within the commercial snowmobile corridor, including non-guided snowmobile rentals.

If the Dogtooth FSR is no longer a feasible option as a motorized corridor in the long term, then KHMR will work in conjunction with the snowmobile club and GBRAC to explore viable options. KHMR recognizes that the possible alternate route for snowmobiling may have to occur in the CRA if the CRA boundary is expanded to the north.

### 3.5.4. Other Winter Activities

The winter season includes other recreational opportunities beyond Alpine, Nordic and heli-skiing. The resort includes open-air ice-skating and snow play areas, and it may serve as a staging point for backcountry skiing and winter hiking. The resort area will serve as a venue for a variety of winter training schools and residents and visitors will also be able to access the lower alpine ski trails for snow tubing.

It is intended that KHMR will become a popular venue for small business meetings, conventions and training courses; groups that will be attracted to the site both by amenities and by recreational opportunities.

The development of half-pipes and terrain parks are important features, which will expand and improve over time and the ski area management will locate in an appropriate position on the mountain.

Small skating rinks in common areas and on hotel properties will function in summer as plaza areas and are important particularly for families with small children.

Snow tubing is a popular feature and a snow tube park is already in operation at the resort. An additional small tobogganing hill in the area between the townhouses and

the resort can provide low-cost fun for families.

Sleigh rides to scenic destinations, as well as activities such as snow shoeing, and dog sledding are important additional operational details that are planned in conjunction with local operators and may utilize the resort's network of trails.

A heli-ski lodge is planned for the resort base area which will provide an additional attraction for resort visitors.

Rock climbing facilities, an avalanche training centre, convention/retreat facilities, year-round spa and swimming pools, a winter zip-line, and expanded shopping opportunities and restaurants are planned features of the new resort and are expected to draw additional visitors to the resort.

### 3.5.5. Sightseeing

A central feature of the Kicking Horse Mountain Resort was the construction and operation of a high quality gondola to enable sightseeing. The gondola access to the top of the mountain provides unparalleled sightseeing opportunities, second to none in North America. The Golden Eagle Express gondola is a critical component in attracting visitors to the site and in placing Golden on the regional, national and international tourism map. In addition, the expected success of the gondola sightseeing activity supports winter operations and provides visitors with exposure and access to the other recreational opportunities on the site and in the region. In these respects, the gondola is a centrepiece of the resort in its marketing strategy.

On-mountain sightseeing trails will include natural retaining walls and steps of local stone. Handrails, benches, viewpoints and signage will be installed to facilitate the enjoyment of the trails by the tourists. Trails will be surfaced with gravel or other durable material as required to identify them as permitted trails in areas of sensitive terrain to minimize the impact on sensitive alpine environments.

Walking trails will be developed with viewpoints, mapping and signage.

Interpretative/nature viewing trails will also be part of the trail experience close to the resort base. The diverse habitat (forest, wooded ridges, fens and meadows) makes the lower part of the site highly desirable for bird watching. Nordic ski trails and other available routes will be utilized for that purpose.

### 3.5.6. Golf Course[6]

Located a few minutes' drive from the Kicking Horse Mountain Resort, the Golden Golf and Country Club has been rated as one of the top golf courses in B.C. It is now expanding with a second golf course. The West Bench Feasibility Study indicated that there is physical potential for at least two more 18-hole courses, but these were not

[6] See also Section 6.3. Golf Course Management Plan.

located where its now recognized to be the optimum potential from a sustainable tourism point of view.

The current proposal for the expansion of KHMR includes an 18 hole golf course. The plan identifies the most appropriate location for the golf course. It will be developed to ensure that there are natural forested areas retained between fairways to allow for continued east-west and north-south connectivity for wildlife. Respect for the Nordic ski trails was incorporated in the design, as well as careful avoidance of riparian areas. Wetland habitat will also be integrated into the golf course plan to protect these sensitive areas. The environmental audit considerations are reviewed in Section 6.3 of this Master Plan with respect to fertilizer and pesticide management and other operational matters. Impact of the golf course on ungulates was considered by the environmental consultant to be negligible in the broader context of the resort and the West Bench.

The new golf course for KHMR is designed by Tom McBroom, who has described the design process as follows:

**Original Design (December 2007)**

Our original golf course design for Kicking Horse Mountain Resort (December 2007) revolved around a Clubhouse located just north of the main entry road and close to the ski village core. Due to the severe grades and restricted space within the Clubhouse precinct, the course had to be designed with non-returning nines. Thus holes 1 and 18 started and ended the course at the Clubhouse and the remainder of the course played out to the north and west. As well, the practice facility was sited at the Clubhouse and played in a southerly direction. The entry drive was located directly off the main spine road just prior to the village core.

In order to keep within the CRA, the course took advantage of the flatter land adjacent to the upper and lower beaver ponds and wetland complexes. This required a design that sidestepped up the mountain slopes to connect the two flatter areas. It was also necessary to incorporate the wetland complexes into the design of the course in a number of creative ways such as fly-overs and required several boardwalk crossings.

Following more detailed environmental work by Enkon, and the suggestions by Oberti Resort Design, it became obvious that the impact of the golf course would be more significant than originally anticipated and changes would be necessary to minimize impacts upon the wetlands and watercourses.

Consequently we looked at adjacent lands to allow for redesign of the course. The land to the south proved too steep as well as having additional environmentally sensitive wetlands. Subsequently, we explored the potential of the valley lands just to the north of the current CRA line. By pushing the golf design north beyond the current CRA boundary, we would have access to the flatter valley land, allowing the course to site more naturally and softer on the land and potentially minimizing environmental impacts. Building on the steepest slopes could also be avoided, thus reducing potential for erosion.

The new design was reviewed with Nordic Ski Club representatives and subsequently modified, in April and May 2008, together with the residential component, in order to

respond the concerns expressed by the Nordic skiers.

**New Course Design (May 2008)**

The current proposed golf course routing is an improvement to the last design in a number of ways, but particularly in terms of the quality of the golf layout and the minimization of various environmental impacts.

Again, as with the original design, the routing features non-returning nines. The Clubhouse is perched on the slope slightly north and east of the village core and overlooks the lower beaver pond/wetland complex. From here the course plays out to the north and into the flatter valley land. The proposed practice academy with range and short game practice area is located just adjacent to the Clubhouse with the range sited slightly south and east. The practice academy will include a 325-yard practice range, a comprehensive practice area including chipping and pitching greens, a sand play area and a large putting green.

The first three holes head north from the Clubhouse, paralleling a small creek before turning to the east to play within the flatter valley lands. The 5th and 6th holes incorporate the proposed irrigation pond. A dramatic par 3 eighth hole plays along the top of the steep valley overlooking the Columbia River Valley, while the ninth plays directly south along the base of a ridge. A halfway house at the tees for the tenth hole signals the start of the back nine. The next five holes play over another creek and will have dramatic views and challenging shots.

The final three holes head south along the beaver pond/wetland complex and create a dramatic return to the Clubhouse.

The changes of direction between holes are fairly frequent and the elevation changes pronounced on some holes. Despite an elevation change of 50 m, the golf course will be walkable.

With an overall length approaching 7,200 yards from the rear set of tees decks, the golf course length is formidable but will not play overly long due to the elevation above sea level. As a final note, the fairway widths will be ample, enhancing playability and creating a scale that complements the surrounding scenery.

The new irrigation pond sits naturally into the land and is more central to the course. Consequently the irrigation system can be more efficient as the pond and pump house will be approximately equal distance to each nine and the change in elevation is much less, 50m as compared to 100m on the previous design.

The beauty of the golf course is that it is self-contained within two small valleys set amidst the soaring mountain ranges. Magnificent views to Kicking Horse, and north towards the Columbia Ice Fields and Mt. Athabaska, are framed by the routing and alignment of the individual holes. The rugged bunkering will reflect the rugged nature of the site.

The layout of the original design required the crossing of some environmentally sensitive areas in order to create a course with sufficient length and variety of holes. That layout had four crossings of the lower beaver ponds/wetlands, two crossings of

the upper beaver pond/wetland complex and five crossings of major streams. The new layout does not cross any beaver ponds or wetlands and crosses only minor creeks of which several are intermittent or seasonal. All proposed crossings will have appropriate buffers and setbacks designed to meet current regulatory standards.

While the previous design was certainly dramatic, a number of holes had to step up the mountainside. This would require wider clearing of trees and more moving of earth to create playable surfaces and holes that would be fair to all levels of players. By staying mainly within the valley, the new routing will require fewer trees to be removed and the amount of grading reduced. As well, the potential for erosion during construction is greatly reduced due to fewer steep slopes.

The current plan crosses fewer Nordic trails and with a few minor revisions, most existing trails can remain in use. Additional trails could be created on the new valley lands perhaps taking advantage of cart path alignments. The new trails would be inexpensive to build at the time of constructing the golf course.

We are confident that this new routing will be a course that is easier to construct, has much less impact on environmentally sensitive areas and creates a superior course that will be challenging and enjoyable to play. It will be a course of high pedigree and will be a draw for golfers from around the world.

### 3.5.7. Mountain Biking and Other Summer Activities

The resort is an excellent location for world class mountain biking and has developed an extensive network of summer mountain bike trails and parks within its CRA. Environmentally sensitive alpine areas have been identified and mountain bike trails have been located in the most suitable locations and are clearly marked (see also Section 6.5.3. Sensitive Ecosystem Protection Plan)

Mountain bike trails utilize portions of ski runs and trails, as well as the service access route where the terrain allows them to be developed without lasting alterations The impacts are being monitored and the runs will only remain available for mountain bikes in summer if the impacts are satisfactorily mitigated.

Kicking Horse Mountain Resort works with an outfitter to offer horseback riding from the resort and area. The resort, via its “Golden Guides” also offers activities such as: whitewater rafting, sightseeing, wetland safaris, canoeing, hunting and fishing, para and hang gliding, visiting the National Parks, nature trails, and other activities. Over time, KHMR will also develop first class tennis facilities. This may include both open (summer) and covered (summer and winter) facilities.

Biking trails within the resort may also be designated on part of the cross-country ski trail system in consultation with the nordic ski society. The combination of bike and walking trails is appropriate in some scenarios but can be inappropriate if poorly implemented.

Spa facilities, convention spaces, vibrant retail spaces and a wide selection of restaurants will be will be available in the resort core area and will help attract additional visitors to the resort. These facilities will be complemented by amenities and

activities such as rock climbing facilities, a summer zipline and swimming pools, including a large pool with a sandy beach feature particularly designed to entertain families with children, and with a large basin for adult swimmers.

### 3.5.8. Grizzly Bear Refuge & Wolf Centre

KHMR has developed a mountain refuge for a Grizzly bear that was left orphaned as a cub. This is not only a popular sightseeing destination, but also an opportunity to study Grizzly bear behaviour by a resident biologist.

KHMR currently offers interpretive visits to the Northern Lights Wolf Centre, which is open year-round and is located just West of Golden, about 20 minutes from KHMR. The Centre contains a pack of grey wolves living in a 1.25-acre enclosure, interacting much as they would in the wild. Daily interpretive talks lasting approximately 20 minutes are offered. KHMR is exploring the possibility of moving part or all of the Wolf Centre to the CRA.

### 3.5.9. Trails Planning and Design Characteristics

Mountain trail and various recreation opportunities[7] have been planned to ensure the best mix of the following characteristics:

#### 3.5.9.1. Diversity

Provision will be made for a wide range of opportunities for user groups ranging from families to competitors. Most visitors will only participate in one or two activities, but the Resort will be far more attractive if a diverse array of activities is available. For example, skating, sleigh rides, snowboard half pipe are not high volume activities, but they are the kind of attractions needed to benefit a wide range of visitors.

#### 3.5.9.2. Integration

Facilities and activities should mesh seamlessly with no compromise in convenience, safety or aesthetics. For example, cross-country ski trails need to be convenient to parking and other amenities but must not conflict with roads, alpine runs, etc.

#### 3.5.9.3. Year Round Use

Cost benefit factors require that the year-round use of facilities need to be maximized. For example cross-country ski trails must be designed to be

[7] For more detailed planning of the base area trail network, please refer to the Parks Plan located in Appendix K of this Master Plan.

available for summer hiking or mountain biking where appropriate.

#### 3.5.9.4. Linkage

Many of the proposed summer and winter trails should be designed to link the various activity nodes of the Resort by non-motorized use. For example, the Parks Plan included in Appendix K of this Master Plan proposes the linking of a number of public parks containing circuit-training loops as exercise stations/ or “adventure areas” along the extended park and trail system.

### 3.5.10. Historic Rail Grade

A historic rail grade extends in a roughly south-east to north-west direction below the CRA. That rail grade (or general area) has been identified in the GBRAP as a summer motorized area and this recreational use will be maintained. Approximately 2 km of the rail grade remains within the CRA. A realigned trail will be constructed, as necessary, to ensure continuous unrestricted summer motorized access. Kicking Horse Mountain Resort will work with the Ministry of Tourism, Culture and the Arts to create a trail designation for the historic rail grade.

## 3.6. INFRASTRUCTURE COMPONENTS

At full build-out, KHMR will include all the necessary services, including a volunteer fire department with its own station, a first aid emergency station, provisions for garbage collection and temporary transfer and storage facility, and the necessary commercial shops and meeting facilities. Emergency services will be provided in consultation with local fire fighting, police, ambulance, and search and rescue authorities in Golden.

KHMR development controls and design will comply with Part 3 of the B.C. Building Code. All multiple occupant buildings will be sprinkler equipped and it is intended that any basement component and the ground floor will be of non-combustible construction with a reinforced concrete structure, covered with stone where above grade. Based on studies of equivalencies for similar buildings at Whistler made by Protection Engineering of Vancouver, it is intended that Building Code compliance for the upper three or four stories of hotel and residential uses be achieved with combustible construction systems, following the guidelines of the provisions of Section 3.2.2.20 of the B.C. Building Code. Water reservoirs, currently at 1,375 m. elevation will reinforce fire protection procedures.

### 3.6.1. General

The following sections provide a scheme for the provision of essential infrastructure and related services necessary for the continued operation of Kicking Horse Mountain Resort. It is expected that the infrastructure itself will be constructed by KHMR in the first instance except where otherwise noted. After full build out of the base area, the infrastructure and related public services with the exception of the main access road, will likely be proposed for transfer to the jurisdiction of a Mountain Resort Municipality. That jurisdiction is created by letters patent under the new Bill 11 – 2007 and KHMR would expect to go through the transition with the support of the Columbia Shuswap Regional District. A Mountain Resort Municipality will provide the local governance and the democratic vehicle for maintenance, administration and possible expansion of infrastructure facilities and other services on an as needed basis.

### 3.6.2. Roads

Road access is from a public road of approximately 14 kilometers from the Town of Golden. The road was improved to Ministry of Transportation standards and paved by the developer in the year 2000, prior to opening KHMR. The Province provided a loan at commercial rates.

#### 3.6.2.1. Access

The access road to KHMR meets Highway 95 near the junction of the Trans Canada Highway. The access road borders the Town of Golden on the north side of the downtown area, without entering the town itself. The road is a paved public highway, which crosses the Canadian Pacific Railway at a monitored and gated public crossing. It continues through a one-lane bridge

over the Columbia River up to the point where there is a fork. The road separates into a dedicated public highway leading to the Golden Golf and Country Club and another dedicated public highway leading to KHMR. The entire length from Highway 95 to the KHMR parking area is approximately 14 km.

The dedicated public road extends up to the areas of the proposed freehold crown grants at KHMR. Within the areas of crown grant, subdivisions include dedication of internal circulation roads, and the creation of strata corporation roads in strata subdivisions. Internal roads comply with all mandatory standards. Roads at KHMR will be built primarily for access to various forms of overnight accommodation.

### 3.6.2.2. Subdivision Roads

All public roads in the resort's base area will be constructed to a two lane local standard with design speeds of 40 km. to 50 km. per hour with a maximum grade of 12%. The local road standard is an 8 meter top with 7 meters of pavement. Road grades must meet BC supplement to Traffic Association of Canada (TAC) Design Manual. Dedication for road must be minimum 20 meters horizontal width or 3 meters beyond the top of cuts and toe of fills, which ever is greater. Slope design should meet TAC standards and be based on stable angles of repose for the materials found on site.

Roads in the commercial area may be upgraded to an urban standard with enclosed drainage and concrete curb and gutter. Some commercial units will have only pedestrian access. Design guidelines specify the road and right of way standards.

***EXHIBIT 3.29.: Snow Removal Necessities***

### 3.6.2.3. Main Access

The main access road is a 50 km. per hour rural collector standard road with an average grade of 8%. The road structure has been widened to 8 meters of pavement.

### 3.6.2.4. Snow Removal and Maintenance

The private road areas are be maintained by the owners, which in most cases will be a strata corporation. Maintenance includes snow removal. The dedicated public roads within the base lands will form part of the eventual jurisdiction of the Mountain Resort Municipality. KHMR will negotiate with the Province to resolve maintenance and snow removal until such time as a local

jurisdiction is established and until the roads are completed to agreed standards. Maintenance of the main access road from Highway 95 to the base area is by the Ministry of Transportation.

### 3.6.3. Water Supply

The current potable water supply sources for the base village are local wells, which supply approximately 1,050 m3/day to meet potable water needs. The total water demand at build out is estimated in a study by EBA, included in Appendix D at approximately 6,500 m3/day, without conservation measures. KHMR is planning to establish a number of voluntary and mandatory water conservation measures. As a first step it is introducing project-wide water metering, starting from 2009.

The bulk of potable water will be supplied by wells. Under the initial stage of hydro-geological program, five wells were drilled. The first well was drilled to a depth of 65.5 meters. Its sustained yield was preliminarily estimated at 365 m3/day. The second well was drilled to a depth of 60 meters. Its sustained yield was initially estimated at 100 $m^3$/day. The chemical analysis indicated that the quality of water from both wells was within the Guidelines for Canadian Drinking Water Quality. The water was considered moderately hard and hard, for the first and second well respectively, which is acceptable in terms of chemical hardness. Additional wells have been drilled and will continue to add water supply as required.

The success of the latest drilling program indicates that groundwater will be sufficient for the majority needs of the resort, with the balance coming from surface water obtained from Holt Creek.

Depending on groundwater quality of the additional wells required for the buildout stage of the development, treatment, including chlorination, may be required. The water quality standard will satisfy the guidelines established by Health Canada in the *Guidelines for Canadian Drinking Water Quality*.

Groundwater from the wells will be pumped to holding tanks for any necessary treatment and the treated water repumped into ground level reservoirs. The reservoirs will be sized to accommodate fire protection flows as well as peak daily demand flows.

Fire flows will be in accordance with the Insurance Bureau of Canada's publication *Water Supply for Public Fire Protection – A Guide to Recommended Practice*, used by most municipalities in British Columbia. The waterworks system will be designed with input from the Fire Commissioner's Office, the Town of Golden Fire Department, and from other existing mountain resort communities.

The minimum reservoir volumes are recommended by Fire Underwriters Survey (F.U.S.). The reservoir volume will include fire storage, balancing or equalizing storage, and an emergency storage. Automatic sprinkler systems will be required for all major building types as per BC Building Code, and are recommended also for the single-family chalets, to substantially reduce the fire flow demand. The highest fire flow demand for the proposed development is estimated at 150 litres per second. This will require some adjustment depending on the type of building construction. The components of the reservoir storage are determined, based on the estimated water

demand for each development phase.

The initial reservoir is located above the “Whispering Pines” townhouse complex, currently the highest development at the site, at an approximate elevation of 1,375 m. This location may provide gravity service for the entire development, with the exception of the Mountain Top Teahouse/Restaurant. The existing gravel road provides adequate access for maintenance of the reservoir.

The proposed water distribution system will be designed to provide sufficient potable water at a maximum daily demand flow rate with a fire assumed at any one location within the development. The greatest demand will be generated by fire suppression at the proposed hotel locations. The watermain network will generally follow the proposed roadways. Sufficient watermain looping will be provided for better flow/pressure balancing and elimination of stagnant water problems. Due to the difference in ground elevation of the various parts of the development, the distribution system will operate in different pressure zones. Pressure reducing valves will therefore be required.

#### 3.6.3.1. Holt Creek Drainage Area and Permit Applications

The Master Plan expansion aims at protecting riparian areas and maintaining the Holt Creek drainage without significant intrusions. Except for part of the golf course the resort development continues to be contained almost entirely in the Cedar Creek drainage. The current Master Plan has significantly reduced the proposed development at the north end. It currently proposes only a limited linear development between the nordic ski trails and the golf course. The closest road and development extension to the north end of the project is approximately one kilometre from Holt Creek.

The part of the golf course that comes in closest proximity to Holt Creek is approximately 400 horizontal meters from the creek bed. A conservative estimate indicates that there are approximately 320 horizontal meters from the creek to the top of bank and approximately an additional 80 meters to the closest point of the future golf course. This will be verified by detailed topography and on site measurements during the detailed design process. In this process the protection of the drainage and of the riparian area will be of the utmost importance, but the preliminary design shows that there is considerable space to allow detailed designs with impact mitigating strategies that will be successful.

To ensure that an impact mitigation strategies are successful, ENKON recommends that additional environmental field studies be conducted to identify critical habitat values and provide recommendations/management plans to minimize potential impacts.

KHMR has prepared an application in regards to Holt Creek for the use of golf course irrigation, domestic use and safety requirements (i.e. fire suppression), following the construction of the golf course and in the later stages of development.

Included in the MDA revision application is the plan of KHMR to divert water

from Holt Creek to KHMR for the above mentioned uses. The routing is likely to follow the existing contour lines and the existing trails as much as possible in order to minimize the disturbance to the environment and eco structure.

KHMR will complete the required engineering design and environmental reviews that are necessary to complete an application to the satisfaction of the Controller of Water Rights and of the Ministry of Environment, and it has committed to inform the local stakeholders (including GBRAC) of the detailed stages of design and construction on a regular basis and as desired by these stakeholders. KHMR will continue to work closely with the all government bodies involved in order to make sure that sufficient flow will remain available for fisheries and wildlife. This will ensure that the impact on the ecosystem is minimized and that the requirements of the downstream license holder are met. In order for KHMR to verify the flows available throughout the year, KHMR will establish a hydrometric program on the Holt Creek flows.

The intake structure will be designed to minimize the disturbance of the Creek's flow and to minimize infrastructure and maintenance requirements, using the latest in technologies at the time of the design and construction. KHMR will explore the opportunities to power the intake structure (in case power is needed) in the most environmentally friendly way possible. (i.e. solar power). This will also minimize the amount of construction and maintenance needed after completion.

The diverted water is required to run through a pipeline towards the resort (a service designed in consultation with the MOE). At this stage, an above ground structure is likely to be considered as this causes the least disturbance to the environment as it does not require major blasting and re-contouring of the lands. If an above ground structure is constructed, KHMR will commit in making wildlife crossing(s) on convenient locations based on the input received from the local community and stakeholders and the pertinent government agencies.

Both the pipeline to the resort and the intake structure will require maintenance on a regular basis. Normally this may occur once or twice a year. KHMR' engineering management through its senior manager, Gerad Lak, has committed to making a maintenance management plan that will clearly identify the number of times that the structure (intake and pipeline) will need to be inspected and will also include a maintenance schedule that identifies timelines for regular maintenance required. This maintenance plan will be shared with the local community stakeholders and the government bodies involved.

The final applications for the use of surface water directly from Holt Creek in order to supplement groundwater sources have been registered with the assistance and under the supervision by the Ministry of Environment. The purposes are as follows:

Fire protection and irrigation:

- To meet minimum reservoir volumes recommended by the Fire Underwriters Survey (F.U.S)

- To meet requirements for the future development of an 18-hole Golf Course.

Waterworks

This application entails the provision of water for domestic use. The water will be rerouted from the Holt Creek intake (exact location to be determined during detailed design) and will most likely be integrated as water features within the golf course design. This way existing watersheds, and other environmental areas as outlined in the Master Plan can remain untouched.

The water will be treated to meet Interior Health's *Drinking Water Protection Regulations* before it is put in the drinking water system. Surface Water Treatment plants will be conveniently located in order to minimize disturbance in flows.

Snowmaking

Kicking Horse Mountain Resort has filed for the use of water from Molar and Repeater Creek.

The two above named drainages normally drain into the Holt Creek system. These drainages are located between the North drainages of the Cedar Creek system and the main drainage of Holt Creek.

The use of this drainage will only be in the spring freshets and the "fall shoulder season" in order to fill the snowmaking reservoir twice each year in order to secure KHMR's ski season.

Based on the above noted design concept, and the anticipated environmental review of the detailed design and the final approval system, it can be reasonably anticipated that the intrusion of the water line in the Holt Creek drainage will require insignificant changes in the ecosystems that exist in the Holt Creek drainage. This will be verified in the detailed review for the final permits.

### 3.6.4. Sanitary Sewage Collection, Treatment and Disposal

The Mountain Resort Municipality will also eventually administer the collection, treatment and disposal of liquid waste. A sanitary sewer collection system will service the hotel, condominium, commercial, townhouse and single family areas of the resort. Wastewater collected in the sanitary sewer collection system will be treated in an on-site secondary treatment plant. Treated effluent is piped along the existing powerline corridor to the Columbia River.

A wide range of disposal options were investigated for the treated effluent for the 1999 Master Plan. Low permeability soil conditions make ground disposal not feasible. Re-use options at the ski resort, including snowmaking, irrigation and steam augmentation, are technically feasible. However, the poor soil conditions and an adequate water

supply did not support wastewater re-use from an economic perspective. A 4 km. pipeline was proposed along the existing powerline corridor to the Columbia River as the preferred and most economical solution.

According to the provincial Pollution Control Objectives and the Municipal Sewage Regulation, the effluent quality required for discharge to the Columbia River must be within:

| | |
|---|---|
| 45 mg/L | BOD5 |
| 45 mg/L | TSS |
| Disinfection | Fecal coliform (<200MPN/100mL) |
| 1.0 mg/L | Phosphorus |
| 40 mg/L | Ammonia |

A treatment plant has been built by Ecofluid and will be expanded in phases to meet project demand, up to its maximum capacity.

The Master Plan envisions 20,089 beds at build out, to be realized gradually in a phased expansion over a number of years. Currently less than 10% of the beds at build out (and less than half of the bed units of the original master plan) have been built and the existing sewage treatment facilities are adequate for the current state of the project and the immediate future. As soon as the design of the next phase will indicate that capacity of the treatment plant (1,200 cubic meters per day as per initial design) is going to be exceeded, an application for a new treatment plant according to the applicable requirements of the Municipal Sewage Regulation will be required and shall be undertaken by KHMR.

The expanded Master Plan will make wastewater recycling a viable and preferred option.

## 33.6.5. Storm Water and Snow Melt Management

### 3.6.5.1. General

The development is located on the eastern flank of the Dogtooth Range of the Columbia Mountains in the Columbia River watershed. The area encompasses a series of steep ridges and bowls. It is bounded by a ridge running approximately Northwest / Southeast to the west of the development area. This is predominantly an open alpine area with some small treed areas mixed within.

From the ski resort base area, which is situated at elevation 1,300 m., the terrain slopes towards the Northeast to an elevation of approximately 780 m. at the Columbia River. The region between the resort area and the Columbia River contains a series of broad terraces between sections of moderately sloping terrain. These terraces are generally poorly drained and often contain marshy/swampy areas or small lakes (Golder Associates, 1998).

The overall drainage in the area of the resort is to the Northeast, following the sloping topography toward the Columbia River. The terraces described above redirect the run-off in the south-easterly direction at a number of locations. All run-off from the development area eventually reaches Cedar Creek.

Major drainage catchments are delineated and shown in the Storm Water and Snowmelt Management Plan (Existing Drainage Conditions). Two major catchments have been delineated: one leading to a tributary to Cedar Creek and the other leading directly to Cedar Creek. As shown on the map, the flow paths are strongly affected by the terraces described above.

Based on a review of the local and regional hydrology it is believed that design run-off conditions for these large areas (in excess of 5 square kilometers) will result from snowmelt events. However, drainage services for small areas, such as parking lots and building envelopes, will most likely be designed based on rainfall events as estimated from regional intensity-duration-frequency curves (IDF curves).

#### 3.6.5.2. Development Considerations

Storm water and snowmelt run-off from the uphill ski areas will occur primarily as overland sheet flow and concentrated flow in numerous channels and small creeks criss-crossing the development site. This run-off will be intercepted by cut-off ditches on the uphill side of the development and routed around into the closest receiving streams. In open areas outside of the development the run-off will be intercepted by roadside ditches and pass through culverts under the roads.

The concentrated base area of development near the hotel / commercial / condotel area will be serviced with piped storm drains. Where possible, the discharge from ditches and storm drains will be routed through the system of natural and man-made lakes and lowlands scattered downstream of the development site. This will provide a certain measure of storm water quality and quantity control through natural biofiltration and uncontrolled detention. Opportunities will be explored to enhance this detention or to provide additional detention elsewhere at the site to mitigate the effects of an increase in run-off due to the proposed development.

Efforts will continue to be made to maintain existing hydrologic patterns at the site by reducing the amount of diversions. Drainage areas, as delineated in the Storm Water and Snowmelt Management Plan (Existing Drainage Conditions), will remain unchanged. Although, local diversions near the base facilities will be provided to reduce the risk of erosion and water quality problems, overall run-off patterns will be maintained. This is particularly important with respect to maintaining base flows in creeks.

Interceptor cut-off ditches, creek or channel diversions and ditches in general will be designed with minimal gradients, where possible. Where necessary, check dams, riprap armouring and other means of erosion protection will be utilized to ensure erosion does not occur during periods of substantial run-off.

The Development Plan will ensure no land disturbance will occur within the Cedar Creek 200 year flood plain. As shown in the Storm Water and Snowmelt Management Plan (Existing Drainage Conditions), Cedar Creek runs from north to south along the face of the mountain through a natural terrace.

The Development plan will ensure potential for storm water contamination by automotive petroleum products is minimized. This may be accomplished by construction of biofiltration swales intercepting run-off from parking lots and maintenance areas and by implementation of oil separators. Segregation of run-off that could be contaminated from run-off that is not exposed to contaminants will help reduce the cost of treatment facilities.

#### 3.6.5.3. Implementation Considerations

KHMR recognises that storm water and snowmelt run-off can have a significant impact on the receiving environment. Hence the development will incorporate erosion control and pollution control measures to prevent deterioration of the watershed. During both the construction and post-construction phases of the project, KHMR will focus on implementing the most applicable Best Management Practices (BMPs) to control the quality of run-off water. These will be in accordance with the project's Environmental Analysis as well as the "Land Development Guidelines for the Protection of Aquatic Habitat" (DFO/MoELP, 1992).

Soil erosion and subsequent downstream deposition during construction is of particular concern since construction activity has the potential for significant impacts on water quality and aquatic habitat. During the construction period, at-source erosion control techniques will include:

~ Minimum land clearing in advance of construction
~ Timely revegetation of bare areas after construction
~ Diversion ditches
~ Riprap and other protection at locations most susceptible to erosion
~ Limiting land clearing operations to dryer seasons.

The environmental analysis, together with the results of the hydrological study, will provide the basis for the design of drainage facilities, such as culverts, stream crossings, storm drains, sediment control facilities and other aspects of the Storm Water and Snowmelt Management Plan.

### 3.6.6. Garbage Collection and Disposal Systems

Domestic solid waste shall be dropped off by residents at the transfer stations within the resort and will be collected from there and either recycled or disposed of in the refuse disposal site in Golden operated by the Columbia Shuswap Regional District.

### 3.6.7. Hazardous and Special Wastes

Storage collection and disposal of hazardous and special wastes at KHMR is the

responsibility of the developer, who makes special arrangements for hazardous wastes, as they are not accepted at any Regional District refuse disposal facility. Prohibited materials at the Golden Refuse Disposal Site include animal carcasses, lead acid batteries, sludge, log yard waste, smouldering ashes, passenger vehicle tires, and commercially generated OCC (Old Corrugated Cardboard), which must be removed by an authorized contractor

### 3.6.8. Electrical Power

KHMR utilizes a 4.5 km. right of way and 25 kva power line.. The project is proceeding on the basis of assurances of adequate supply of power by B.C. Hydro at normal rates. B.C. Hydro is expected to supply the necessary power from Golden and to provide local distribution in the resort.

### 3.6.9. Communications

The installation of appropriate telephone lines along the existing alignment of the power lines by Telus is a possible form of service. The current alternative is a satellite telephone system. Internet service is available at KHMR.

### 3.6.10. Avalanches

#### 3.6.10.1. Avalanche Formation

Most of the open slopes of the proposed ski area above elevation 1,900 m. are exposed to avalanches. The avalanches are the result of a combination of the following factors:

- Slopes with inclines greater than 30° near the upper terminals.
- Deep snow which reaches a depth of 2 m. to 2.5 m. on slopes that are not affected by the wind.
- Strong south-westerly winds during snowfalls. The wind deposits deeper snow on the ski slopes which are on the downwind side of the mountain.

Depending on the type of surface of old snow on which new snowfalls, the new snow may remain unstable for the duration of one day to several weeks after a snowfall.

#### 3.6.10.2. Updated Avalanche Hazard Studies

Avalanche hazard studies and mitigation plans have been on going since 1998. Chris Stethem and Associates has prepared an updated report included in Appendix J reviewing the expanded CRA.

#### 3.6.10.3. Snow Safety Plan

A snow safety plan for the area will be completed by the resort operator before start of winter operations of the expanded ski area. The snow safety plan contains an inventory of the avalanche paths, a description of the equipment and operation of the avalanche control, the safety measures, and a rescue plan. The rescue plan describes the responsibilities, actions, equipment, and outside resources for situations when an avalanche accident should occur (usually outside the ski area boundary).

### 3.6.11. Fire Protection

The B.C. Building Code and Fire Code will be followed in the resort development. In addition to other expanded services, the resort will create its own volunteer Fire Department and Station. A Society for the creation of the volunteer fire department has been established and KHMR has commissioned an expert report on the progressive creation of the volunteer fire department according to provincial guidelines. A Mountain Resort Association managing the interests of all the independent participants in the development will cooperate with the Society.

Because the resort is situated in a heavily forested environment, particular consideration will be given to fire prevention and protection. A variety of guidelines to reduce and control the threat of fire are to be incorporated into the design and materials used in the resort:

#### 3.6.11.1. Defensible Space

A surrounding perimeter that resists the spread of fire will be incorporated into building design. Combustible materials, including natural ground and ladder fuels will be removed from the area surrounding each building to create a buffer between potential fire paths and the building structure.

#### 3.6.11.2. Building Location

Structures on a slope will be placed at least 10 metres back from any ridge or cliff.

#### 3.6.11.3. Roofing

Because retardant treatments are only effective for a period of time, roofing materials will be limited to asphalt shingles, metal, clay tile and concrete products. The pitch of the roof is important as well, the steeper the roof pitch the harder for embers to remain there.

### 3.6.11.4. Vents

The vents around attics, under-eave soffit vents, and chimneys are one way embers may enter a building. Vents and chimneys will be required to be covered with non-combustible wire mesh no larger than 3 mm (1/8 inch).

### 3.6.11.5. Siding

Although stucco is less desirable for resort architecture and is not encouraged as a major component in the design guidelines, it should be noted that wood siding is susceptible to ignition by radiant heat and materials such as stucco, stone and masonry stand up much better under heat and exposure. Stucco may be used in combination with heavy timber and stone to achieve a traditional mountain architecture style as well as enhancing a post and beam or timber frame exposed structure.

### 3.6.11.6. Additional Structures

Outbuildings such as decks, porches, and fences should also receive strong fire prevention attention. A combustible wood fence or trellis attached to a home acts as a fuel bridge, leading a fire right to the structure. Masonry or metal will be used as a protective barrier between fences and structures. Firewood shall not be stored under decks or porches. The underside of decks and porches will be enclosed with non-combustible screening or siding. Elevated decks on a hillside are in the direct line of a fire moving up-slope. Terraced patios will be recommended instead.

### 3.6.11.7. Sprinklers

All buildings shall be sprinklered until when a local fire department is fully established and will provide the level of service expected under the B.C. Building Code.

### 3.6.11.8. Fire Protection Services

In theory there would be several options for the provision of full fire protection services at a mountain resort location such as KHMR. One option would be contracting for services with the nearest fire department. A second option would be creation of a single fire services district to include KHMR, Golden and surrounding areas. A third option would be creation of an independent fire service improvement district for KHMR (for example, under the umbrella of a Mountain Resort Improvement District as at Sun Peaks). These three options have been reviewed and are not feasible at KHMR in the foreseeable future, because of the remoteness of KHMR and the position of the resort in terms of jurisdiction and of existing governance.

The available option is the creation of a local volunteer fire department under

the umbrella of a society created for that purpose. The first steps have already been taken with the creation of a society, training of the initial volunteers and commissioning a report from CGI on the provision of fire protection and implementation of the next steps. Generally, a fire protection service will be developed in accordance with the provisions of the guidelines contained in the publication in "Establishing and Operating a Fire Department", by the Office of the Fire Commissioner, which operates under the wing of the Ministry of Public Safety and Solicitor General.

The volunteer fire department is expected to become fully operational under a CSRD service area or as a municipal service under a future Mountain Resort Municipality.

An independent fire service will be created to provide fire protection at the resort area, utilizing on-site equipment and trained volunteers, drawn from ski patrol and other ski resort employees. Fire protection services at build-out will be provided by a fully equipped volunteer fire department with its own fire station in accordance with provincial and insurers' guidelines.

In the review of the best way to provide fire protection services at KHMR, consideration must be given to insurance implications for property owners, the provision of sprinklers in buildings where service is from a great distance, and the opportunities for utilizing fully trained fire fighters to reinforce search-and-rescue and paramedic skills at the base of the resort. Building design may take into consideration recommendations of the Insurance Advisory Organization in addition to the BC Building Code and Fire Code. KHMR has been in touch with the operators of other ski area fire protection services and will continue to consult with facilities such as at Sun Peaks and Panorama, to draw from their experiences.

In addition to passive measures to reduce the risk of the spread of fire as noted above KHMR is planning to implement a mandatory sprinklering requirement in all buildings to assist in the response time and equipment of the local volunteer fire department.

## 3.7. VISITOR'S CENTRE

There is a significant demand for a visitor information centre in the Town of Golden. Over 3,000,000 visitors annually pass through Golden on their way to and from the National Parks system. During the busy summer days this translates into 17-18,000 persons per day.

Assuming a conservative capture rate of 20-30% of the traffic flow, this converts into 3,400-5,100 people per day, or 425 people per hour based on a 12 hour day. Assuming an average stay of ½ hour, this converts into 140-212 people at the Visitor's Centre at any one time. Based on the above calculations, a Visitor's Centre with extensive facilities was proposed in the 1999 Master Plan.

The visitor centre is now built and is a significant asset for both KHMR and the Town of Golden.

***EXHIBIT 3.30.: Golden Visitor's Centre***


*May 27, 2006: Premier Gordon Campbell helped open the new B.C. Visitor Centre in Golden, as part of the Province's regional tourism development strategy.*

# 4. PROJECT PHASING & IMPLEMENTATION

## 4.1. CONFORMITY WITH THE COMMERCIAL ALPINE SKI POLICY

The initial ski resort development started in the year 2000 under a Master Development Agreement (MDA) with the Province of B.C. In order to expand KHMR with a long-term plan it is necessary to obtain permission from the government of the Province of B.C., under the terms of the Commercial Alpine Skiing Policy (CASP). KHMR is applying for an expansion approval to achieve certainty of development up to its optimum size and to achieve a Master Plan approval for a resort of a similar size to that of Revelstoke, in order to reach a competitively similar critical mass of tourist bed base and to have a positive participation in the general growth of the tourism industry in the promising Kootenay region.

This kind of application falls under the one-time exemption from the 1995 Environmental Assessment Act (revised in 2003) process for resorts that have not reached 2,000 beds. The environmental review of the expansion project will be done by the provincial inter-agency committee to be established under CASP. Following final review and approval by the Province of the Master Plan, KHMR will complete a new MDA with the Province. Following the new MDA, KHMR will then apply for the technical permits required by the Province for the various components of the project. The permitting and construction phase of the expansion project cannot commence until the MDA has been signed.

Considerations to determine conformity with CASP for the expansion plans to create a destination four seasons resort are as follows:

1. Possible lift capacity distribution and potential SAOT calculations according to initial planning indicate an available CCC of over 18,000.

2. Mountain resort classification for KHMR according to CASP guidelines indicate that a total in the range of 38 points is according to the expansion plans. This will confirm KHMR as a destination resort.

3. KHMR should qualify for 120% of CCC in the calculation of permissible bed units as a destination resort.

5. A wide and two-sided mountain range such as the Dogtooth Range makes it possible to discharge skiers that reach the mountain tops and multiple bowls without the crowding problems of other resorts, on a comparative basis, and with an uncommon opportunity for innumerable expert chutes dispersing the more aggressive skiers.

6. The expansion plan is based on the assumptions that a BRC of 20,500 or greater is available and that the tourist bed base will be approximately 18,000 bed units and an additional 2,000 bed units will be available for employee housing.

## 4.2. PERMITS

Following the new Master Development Agreement for the expanded Master Plan, KHMR will seek to obtain the various permits required for the expansion. Permits will be required for sewer, water, subdivisions, etc.; and for each of the ski lifts. Different approval times will apply to each type of permit and some permits require notification before construction.

## 4.3. LIFT PHASING AND CAPACITY

The current ski operation has approximately 130,000 to 140,000 skier visits per year, plus 30,000 to 40,000 summer visitors per year.

The ski resort will be planned to have more than sufficient capacity to meet skier demand ranging from the current 140,000 skier visits to 450,000 overnight stay plus 150,000 day skier visits at completion. Skier visits of this size would represent an approximate 40% utilization of the uphill capacity and only approximately 20% of the projected market for Alpine skiing in the National Park system.

Note that in each case new lifts are subject to an “application to construct” to the Aerial Tramway Inspection Division of the Ministry of Municipal Affairs, which includes a review of technical details and compliance with appropriate codes. The lift schedule phasing is included in Table 4.1, below.

## *TABLE 4.1.: Bed Units Based on Lift Capacity Schedule (SAOT)*[1]

**KICKING HORSE MOUNTAIN RESORT - MASTER PLAN 2008**

| SAOT FORMULA | | | |
|---|---|---|---|
| SAOT: | CP | = | CL x VR x LE x HO / VSD |
| KEY | CP | = | effective lift pod capacity |
| | CL | = | hourly lift capacity (skier and snow boarders/hour) |
| | VR | = | vertical rise of specific lift (feet) |
| | LE | = | lift loading efficiency = 0.9 |
| | HO | = | hours of operation = 7 |
| | VSD | = | vertical skied per day = 10,000 (except for beginners)(feet) |

Last Update: February 5, 2009

| LIFT DATA | PHASE | | VERTICAL Meters | VERTICAL Feet | CCC 100 | CCC Cumulative |
|---|---|---|---|---|---|---|
| LIFT A (2,400 p/h) CATAMOUNT - DETACHABLE QUAD CHAIR | P1 | T | 1,615 | 5,299 | 1,720 | 1,720 |
| SAOT: CP = 2,400 x 1138.45 x 0.90 x 7 / 10,000 = 1,721 | | B | 1,268 | 4,160 | | |
| | | V | 347 | 1,138 | | |
| LIFT B (1,200 p/h) GOLDEN EAGLE EXPRESS GONDOLA (8 PASSENGER) | EXISTING | T | 2,340 | 7,677 | 2,670 | 4,390 |
| SAOT: CP = 1,200 x 3,530 x 0.90 x 7 / 10,000 = 2,669 | | B | 1,264 | 4,147 | | |
| | | V | 1,076 | 3,530 | | |
| LIFT C (1,500 p/h) STAIRWAY TO HEAVEN - QUAD CHAIR | EXISTING | T | 2,450 | 8,038 | 1,210 | 5,600 |
| SAOT: CP = 1,500 x 1,279.53 x 0.90 x 7 / 10,000 = 1,209 | | B | 2,060 | 6,759 | | |
| | | V | 390 | 1,280 | | |
| LIFT D1 (2,400 p/h) PIONEER (LOWER SECTION) - DETACHABLE QUAD CHAIR | P1 | T | 1,680 | 5,512 | 1,890 | 7,490 |
| SAOT: CP = 2,400 x 1253.28 x 0.90 x 7 / 10,000 = 1,895 | | B | 1,298 | 4,259 | | |
| | | V | 382 | 1,253 | | |
| LIFT D2 (2,400 p/h) PIONEER (UPPER SECTION) - DETACHABLE QUAD CHAIR | P1 | T | 2,060 | 6,759 | 1,880 | 9,370 |
| SAOT: CP = 2,400 x 1246.72 x 0.90 x 7 / 10,000 = 1,885 | | B | 1,680 | 5,512 | | |
| | | V | 380 | 1,247 | | |
| LIFT E1 (1,200 p/h) BEGINNER LIFT - MAGIC CARPET | P1 | T | 1,285 | 4,216 | 170 | 9,540 |
| SAOT: CP = 1,200 x 75 x 0.90 x 7 / 3,280 = 174 | | B | 1,262 | 4,140 | | |
| | | V | 23 | 75 | | |
| LIFT E2 (1,200 p/h) BEGINNER LIFT - MAGIC CARPET | P1 | T | 1,299 | 4,262 | 110 | 9,650 |
| SAOT: CP = 1,200 x 45.93 x 0.90 x 7 / 3,280 = 106 | | B | 1,285 | 4,216 | | |
| | | V | 14 | 46 | | |
| LIFT F (1,800 p/h) CRYSTAL BOWL LIFT - DETACHABLE QUAD CHAIR | P2 | T | 2,285 | 7,497 | 870 | 10,520 |
| SAOT: CP = 1,800 x 771.00 x 0.90 x 7 / 10,000 = 874 | | B | 2,050 | 6,726 | | |
| | | V | 235 | 771 | | |
| LIFT G (2,800 p/h) CABRIOLET - DETACHABLE 8 PASSENGER PEOPLE MOVER | P2 | T | 1,262 | 4,140 | 0 | 10,520 |
| SAOT: CP = 2,800 x 216.54 x 0.90 x 7 / 10,000 = 382 | | B | 1,196 | 3,924 | | |
| | | V | 66 | 217 | | |

[1] SAOT = Skiers at One Time

## KICKING HORSE MOUNTAIN RESORT - MASTER PLAN 2008

| SAOT FORMULA | | | | |
|---|---|---|---|---|
| SAOT: | CP | = | CL x VR x LE x HO / VSD | Last Update: February 5, 2009 |
| KEY | CP | = | effective lift pod capacity | |
| | CL | = | hourly lift capacity (skier and snow boarders/hour) | |
| | VR | = | vertical rise of specific lift (feet) | |
| | LE | = | lift loading efficiency = 0.9 | |
| | HO | = | hours of operation = 7 | |
| | VSD | = | vertical skied per day = 10,000 (except for beginners)(feet) | |

| LIFT DATA | PHASE | | VERTICAL Meters | VERTICAL Feet | CCC 100 | CCC Cumulative |
|---|---|---|---|---|---|---|
| LIFT H (1,600 p/h) - QUAD CHAIR | P3 | T | 1,500 | 4,921 | 690 | 11,210 |
| SAOT: CP = 1,600 x 688.98 x 0.90 x 7 / 10,000 = 694 | | B | 1,290 | 4,232 | | |
| | | V | 210 | 689 | | |
| LIFT I (1,800 p/h) - DETACHABLE QUAD CHAIR | P3 | T | 1,920 | 6,299 | 2,340 | 13,550 |
| SAOT: CP = 1,800 x 2,066.93 x 0.9 x 7 / 10,000 = 2,344 | | B | 1,290 | 4,232 | | |
| | | V | 630 | 2,067 | | |
| LIFT J (1,800 p/h) - QUAD CHAIR | P3 | T | 2,276 | 7,467 | 1,750 | 15,300 |
| SAOT: CP = 1,800 x 1,545.28 x 0.9 x 7 / 10,000 = 1,752 | | B | 1,805 | 5,922 | | |
| | | V | 471 | 1,545 | | |
| LIFT K (1,800 p/h) - DETACHABLE QUAD CHAIR | P4 | T | 2,173 | 7,129 | 2,780 | 18,080 |
| SAOT: CP = 1,800 x 2454.07 x 0.90 x 7 / 10,000 = 2,783 | | B | 1,425 | 4,675 | | |
| | | V | 748 | 2,454 | | |
| LIFT L (1,200 p/h) - QUAD CHAIR | P4 | T | 1,386 | 4,547 | 0 | 18,080 |
| SAOT: CP = 1,200 x 2,467.19 x 0.9 x 7 / 10,000 = 1,865 | | B | 1,232 | 4,042 | | |
| | | V | 154 | 505 | | |
| LIFT M (2,800 p/h) - DETACHABLE 8 PASSENGER PEOPLE MOVER | P4 | T | 1,425 | 4,675 | 0 | 18,080 |
| SAOT: CP = 2,800 x 2,467.19 x 0.9 x 7 / 10,000 = 4,352 | | B | 1,177 | 3,862 | | |
| | | V | 248 | 814 | | |

| PROJECTED UPHILL CAPACITY BASED ON SKI LIFTS | | | TOTAL CCC |
|---|---|---|---|
| TOTAL SAOT: | 24,706 | | 18,080 |

| | | |
|---|---|---|
| SCC* | 10,140 | Skiers / Day |
| Controlled Recreation Area | 2,120 | ha |
| Area of Ski Runs** | 712 | ha |
| Area of Ski Runs as a % of CRA | 34% | ha |
| Skier Density (Number of Skiers) | 25.4 | per ha |

* Note: See Table IV.1 "MASTER DEVELOPMENT SUMMARY" on page IV-3 of Appendix I: SKI AREA REPORT.

** Note: See Table IV.9 "TRAIL BALANCE BY SKILL CLASS, PHASE 4 - BUILD-OUT" on page IV-17 of Appendix I: SKI AREA REPORT.

## 4.4. RESORT CONSTRUCTION PHASING

The Ski Area Master Plan is intended primarily to indicate the scale of the project and mix of ski area and base development at full build out. The precise sequence and scheduling of each component of the ski area or the base area must be flexible so as to allow the resort to respond to market and business fluctuations, and to utilize the benefit of experience. It is very difficult to determine detailed construction phasing before initiating a real estate marketing program and determining market directions. It is premature to say which one of the types of units will be more desirable in the market place, or which hotel agreement will be concluded first or which type of lift will represent the best investment and the best response to market demands. Responding successfully to competition requires adapting as times change, new products become available and market expectations create new demands. Under these circumstances, phasing is hypothetical and subject to change according to public response to the initial offering of residential unit types and lift upgrades. An outline of the likely sequence of phases describing the development of these phases has been prepared.

KHMR's plan is to construct the first hotel to complete the central plaza as soon as the project is re-launched with the expanded Master Plan approval.

Expansion of the resort will include an expansion of the commercial facilities, which will cater to the day skiers and visitors utilizing the ski area facilities. Unlike the skiers' facilities, where the commercial premises (including ski lift right of ways and parking areas) will be on leased land, the additional restaurant, ski shops, etc., are anticipated to be part of the private development on fee simple land. Ownership will be expected to be separate from that of the developer, and might be either part of the hotels or as part of the condominium developments. This will allow the project to meet CASP objectives for a proportionate expansion of ski area facilities and services with the lift expansion, but it will also permit ownership on fee simple land of independent business interests. KHMR believes that this formula is economically sound, will provide greater investment and will create local ownership commitments and a better quality of service over the long term. According to demand, the plan can accommodate over time more than 80,000 square feet of commercial space, in addition to the facilities provided as part of the hotels; consequently there seems to be no reason to doubt that the project will be able to achieve a balance of services relative to the size of the skier population as it grows. The expanded plan will allow to create an attractive resort village atmosphere with the economic support of an adequate size of tourist population. This is one of the main reasons for the targeted size of the expansion.

The Master Plan for the expansion of KHMR envisions development over a period of time, that may range from twenty to thirty years, in eight phases. Construction of new lifts and mountain capacity expansion will precede or match the bed base development. The following tables indicate the preliminary conceptual sequence of the phases. Speed of expansion will depend on skier visit growth and market absorption. Growth is not expected to be linear, but the Master Plan report will not address the alternative scenarios of different timelines. It is expected that the size of phases will be adapted to market conditions.

The amount of sleeping accommodation that can be provided under the Commercial Alpine Skiing Policy (CASP) is dependent upon a variety of factors including the range of skiable terrain and the Comfortable Carrying Capacity (CCC) of the chair lifts and Gondola. CASP sets out calculations for deriving the number of beds that can be accommodated with a particular mountain development plan and these calculations are illustrated in Table 4.1, above.

Presented below are the results of the bed unit calculation model and phasing schedule for the expanded KHMR.

***TABLE 4.2.: Preliminary Master Development Schedule***

| | BED UNITS & PHASING TABLE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | PHASE | NAME | PURCHASED LEASED | LOT AREA (m2) | BED UNIT | CLUSTER NO. | LOT NAME | NO. OF BLDG. | TYPE OF BLDG |
| 2008 | EXISTING | ASPENS-1 | PURCHASED | 10,523.84 | 120 | 5 | LOT A | 6 | CONDO |
| | EXISTING | ASPENS-2 | PURCHASED | 12,723.40 | 120 | 5 | LOT B | 6 | CONDO |
| | EXISTING | BED & BREAKFAST | PURCHASED | 15,080.31 | 18 | 36 | LOT A | 3 | B&B |
| | EXISTING | BNCL OFFICES | LEASED | 887.37 | 0 | 54 | LOT A | 1 | SERVICE |
| | EXISTING | CABINS AT KICKING HORSE | PURCHASED | 30,524.40 | 68 | 39 | LOT A | 17 | SFC |
| | EXISTING | CACHE ESTATE | PURCHASED | 17,751.99 | 74 | 34 | LOT A | 15 | SFC |
| | EXISTING | CACHE RESIDENCE | PURCHASED | 34,389.19 | 114 | 35 | LOT A | 19 | SFC |
| | EXISTING | CEDAR CREEK ESTATE | PURCHASED | 29,855.85 | 114 | 38 | LOT A | 19 | SFC |
| | EXISTING | DOGTOOTH | PURCHASED | 21,096.91 | 96 | 37 | LOT A | 16 | SFC |
| | EXISTING | EAGLE'S EYE RESTAURANT | LEASED | 6,961.62 | 4 | 64 | LOT A | 1 | SERVICE |
| | EXISTING | GONDOLA PLAZA DAYLODGE | LEASED | 4,681.40 | 0 | 55 | DAYLODGE | 1 | SERVICE |
| | EXISTING | GONDOLA PLAZA-CONDOTEL | PURCHASED | 3,504.50 | 188 | 1 | MOUNTAINEER | 1 | CONDO |
| | EXISTING | GONDOLA PLAZA-CONDOTEL | PURCHASED | 3,849.19 | 208 | 1 | GLACIER LODGE | 1 | CONDO |
| | EXISTING | HEAVEN'S DOOR YURT | LEASED | 1,072.22 | 0 | 60 | LOT A | 1 | SERVICE |
| | EXISTING | PALLISER LODGE | PURCHASED | 3,436.32 | 176 | 3 | LOT A | 1 | CONDO |
| | EXISTING | PURCELL WOODS | PURCHASED | 28,197.01 | 116 | 33 | LOT A | 29 | SFC |
| | EXISTING | SELKIRK RESORT HOMES | PURCHASED | 8,590.12 | 72 | 32 | LOT B | 6 | TH |
| | EXISTING | SEWAGE TREATMENT PLANT | LEASED | 2,834.67 | 0 | 54 | LOT B | 1 | SERVICE |
| | EXISTING | WATER RESERVOIR | LEASED | 4,322.78 | 0 | 65 | LOT A | 0 | SERVICE |
| | EXISTING | WHISPERING PINES | PURCHASED | 13,190.67 | 88 | 4 | LOT A | 6 | TH |
| | | SUBTOTAL EXISTING | 232,713.70 | 253,473.76 | 1,576 | | | 150 | |
| 2009 ~ 2018 | | ADMINISTRATION BUILDING | | | | | | | |
| | PHASE 1 | WELCOME CENTRE | LEASED | 8,438.12 | 0 | 58 | LOT G | 1 | SERVICE |
| | PHASE 1 | BLAEBERRY VIEW-CONDOS | PURCHASED | 17,254.85 | 452 | 31 | LOT A | 2 | CONDO |
| | PHASE 1 | BLAEBERRY VIEW-CONDOS | PURCHASED | 20,502.02 | 548 | 30 | LOT A | 3 | CONDO |
| | PHASE 1 | EMPLOYEE HOUSING | LEASED | 5,605.23 | 176 | 25 | LOT B | 1 | CONDO |
| | PHASE 1 | EMPLOYEE HOUSING | LEASED | 6,986.68 | 176 | 25 | LOT D | 1 | CONDO |
| | PHASE 1 | FOUNDERS'-CONDOS | PURCHASED | 5,264.05 | 156 | 7 | LOT A | 1 | CONDO |
| | PHASE 1 | FOUNDERS'-CONDOS | PURCHASED | 6,083.81 | 156 | 7 | LOT B | 1 | CONDO |
| | PHASE 1 | FOUNDERS'-CONDOS | PURCHASED | 6,962.27 | 156 | 7 | LOT C | 1 | CONDO |
| | PHASE 1 | GOLF CLUBHOUSE | PURCHASED | 17,743.77 | 0 | 53 | LOT A | 1 | SERVICE |
| | PHASE 1 | GOLF HOTEL | PURCHASED | 16,446.96 | 256 | 45 | LOT A | 1 | HOTEL |
| | PHASE 1 | GOLF-SFC | PURCHASED | 3,069.60 | 12 | 40 | LOT A | 2 | SFC |
| | PHASE 1 | GOLF-SFC | PURCHASED | 3,126.72 | 12 | 40 | LOT D | 2 | SFC |
| | PHASE 1 | GOLF-SFC | PURCHASED | 5,992.20 | 36 | 41 | LOT C | 6 | SFC |
| | PHASE 1 | GOLF-SFC | PURCHASED | 6,000.00 | 36 | 41 | LOT A | 6 | SFC |
| | PHASE 1 | GOLF-SFC | PURCHASED | 6,051.63 | 24 | 40 | LOT C | 4 | SFC |
| | PHASE 1 | GOLF-SFC | PURCHASED | 6,257.20 | 36 | 41 | LOT B | 6 | SFC |
| | PHASE 1 | GOLF-SFC | PURCHASED | 6,873.96 | 36 | 40 | LOT E | 6 | SFC |
| | PHASE 1 | GOLF-SFC | PURCHASED | 7,814.41 | 30 | 40 | LOT B | 5 | SFC |
| | PHASE 1 | GOLF-SFC | PURCHASED | 8,449.04 | 48 | 42 | LOT B | 8 | SFC |
| | PHASE 1 | GOLF-SFC | PURCHASED | 8,620.71 | 36 | 44 | LOT A | 6 | SFC |
| | PHASE 1 | GOLF-SFC | PURCHASED | 10,827.62 | 42 | 44 | LOT B | 7 | SFC |
| | PHASE 1 | GOLF-SFC | PURCHASED | 13,002.74 | 66 | 42 | LOT C | 11 | SFC |
| | PHASE 1 | GOLF-SFC | PURCHASED | 13,074.12 | 72 | 41 | LOT D | 12 | SFC |
| | PHASE 1 | GOLF-SFC | PURCHASED | 14,601.95 | 84 | 42 | LOT A | 14 | SFC |
| | PHASE 1 | GOLF-SFC | PURCHASED | 16,321.02 | 66 | 42 | LOT D | 11 | SFC |
| | PHASE 1 | GOLF-TH | PURCHASED | 6,633.42 | 16 | 46 | LOT B | 2 | TH |
| | PHASE 1 | GOLF-TH | PURCHASED | 10,582.61 | 32 | 46 | LOT A | 4 | TH |
| | PHASE 1 | GOLF-TH | PURCHASED | 10,597.68 | 48 | 43 | LOT B | 4 | TH |
| | PHASE 1 | GOLF-TH | PURCHASED | 11,093.13 | 48 | 43 | LOT A | 4 | TH |
| | PHASE 1 | GOLF-TH | PURCHASED | 13,167.85 | 68 | 43 | LOT C | 3 | TH |
| | PHASE 1 | GONDOLA PLAZA-CONDOTEL | PURCHASED | 5,505.42 | 209 | 1 | BLOCK C | 1 | CONDO |
| | PHASE 1 | GONDOLA PLAZA-CONDOTEL | PURCHASED | 5,582.94 | 366 | 1 | BLOCK F | 2 | CONDO |
| | PHASE 1 | GONDOLA PLAZA-CONTOTEL | PURCHASED | 3,059.36 | 123 | 1 | BLOCK D | 1 | CONDO |
| | PHASE 1 | MAINTENANCE BLDG | LEASED | 8,962.95 | 0 | 59 | LOT F | 1 | SERVICE |
| | PHASE 1 | PARKING | LEASED | 4,085.25 | 0 | - | LOT B | 0 | N/A |
| | PHASE 1 | PARKING | LEASED | 6,292.48 | 0 | - | LOT A | 0 | N/A |
| | PHASE 1 | PARKING | LEASED | 20,332.99 | 0 | - | LOT E | 0 | N/A |
| | PHASE 1 | SELKIRK RESORT HOMES | PURCHASED | 6,536.08 | 40 | 33 | LOT B | 3 | TH |
| | PHASE 1 | SEWAGE TREATMENT PLANT | LEASED | 1,542.97 | 0 | 54 | LOT C | 1 | SERVICE |
| | PHASE 1 | SNOWING MAKING RESERVOIR | LEASED | 23,893.89 | | 66 | LOT A | 0 | N/A |
| | PHASE 1 | VISTA-PLAZA CONDO | PURCHASED | 11,887.80 | 400 | 2 | PARCEL A | 1 | CONDO |
| | PHASE 1 | VISTA-PLAZA HOTEL | PURCHASED | 13,518.80 | 244 | 2 | PARCEL B | 1 | HOTEL |
| | | SUBTOTAL PHASE 1 | 318,505.74 | 404,646.30 | 4,306 | | | 147 | |

## BED UNITS & PHASING TABLE

| | PHASE | NAME | PURCHASED LEASED | LOT AREA (m2) | BED UNIT | CLUSTER NO. | LOT NAME | NO. OF BLDG. | TYPE OF BLDG |
|---|---|---|---|---|---|---|---|---|---|
| 2019 ~ 2028 | PHASE 2 | CONDOS | PURCHASED | 8,613.53 | 156 | 29 | LOT A | 1 | CONDO |
| | PHASE 2 | CONDOS | PURCHASED | 12,807.27 | 312 | 32 | LOT B | 2 | CONDO |
| | PHASE 2 | EMERGENCY SERVICES | LEASED | 4,945.49 | 0 | 56 | LOT G | 1 | SERVICE |
| | PHASE 2 | EMPLOYEE HOUSING | LEASED | 10,619.33 | 284 | 25 | LOT C | 1 | CONDO |
| | PHASE 2 | EMPLOYEE HOUSING | LEASED | 12,652.68 | 284 | 25 | LOT E | 1 | CONDO |
| | PHASE 2 | FOUNDERS'-CONDOS | PURCHASED | 5,130.28 | 208 | 8 | LOT B | 1 | CONDO |
| | PHASE 2 | FOUNDERS'-CONDOS | PURCHASED | 5,462.09 | 156 | 8 | LOT E | 1 | CONDO |
| | PHASE 2 | FOUNDERS'-CONDOS | PURCHASED | 5,558.39 | 156 | 8 | LOT C | 1 | CONDO |
| | PHASE 2 | FOUNDERS'-CONDOS | PURCHASED | 8,039.76 | 236 | 8 | LOT D | 1 | CONDO |
| | PHASE 2 | FOUNDERS'-CONDOS | PURCHASED | 9,267.74 | 188 | 8 | LOT A | 1 | CONDO |
| | PHASE 2 | FOUNDERS'-SFC | PURCHASED | 1,537.84 | 6 | 9 | LOT A | 1 | SFC |
| | PHASE 2 | FOUNDERS'-SFC | PURCHASED | 3,418.40 | 18 | 9 | LOT B | 3 | SFC |
| | PHASE 2 | FOUNDERS'-SFC | PURCHASED | 4,299.23 | 24 | 9 | LOT E | 4 | SFC |
| | PHASE 2 | FOUNDERS'-SFC | PURCHASED | 5,310.98 | 30 | 9 | LOT C | 5 | SFC |
| | PHASE 2 | FOUNDERS'-SFC | PURCHASED | 15,286.36 | 78 | 9 | LOT D | 13 | SFC |
| | PHASE 2 | GOLDEN TRAIL-CONDOS | PURCHASED | 3,910.10 | 156 | 6 | LOT C | 1 | CONDO |
| | PHASE 2 | GOLDEN TRAIL-CONDOS | PURCHASED | 4,604.40 | 156 | 6 | LOT A | 1 | CONDO |
| | PHASE 2 | GOLDEN TRAIL-CONDOS | PURCHASED | 5,637.78 | 156 | 12 | LOT H | 1 | CONDO |
| | PHASE 2 | GOLDEN TRAIL-CONDOS | PURCHASED | 7,035.05 | 234 | 6 | LOT B | 1 | CONDO |
| | PHASE 2 | GOLDEN TRAIL-CONDOS | PURCHASED | 8,994.65 | 264 | 6 | LOT D | 1 | CONDO |
| | PHASE 2 | GOLDEN TRAIL-CONDOS | PURCHASED | 9,328.29 | 222 | 12 | LOT F | 1 | CONDO |
| | PHASE 2 | GOLDEN TRAIL-CONDOS | PURCHASED | 9,621.21 | 236 | 6 | LOT E | 1 | CONDO |
| | PHASE 2 | GOLDEN TRAIL-CONDOS | PURCHASED | 10,552.98 | 156 | 12 | LOT H | 1 | CONDO |
| | PHASE 2 | GOLDEN TRAIL-TH | PURCHASED | 26,878.80 | 112 | 24 | LOT A | 8 | TH |
| | PHASE 2 | GOLF-SFC | PURCHASED | 11,854.52 | 66 | 47 | LOT C | 11 | SFC |
| | PHASE 2 | GOLF-SFC | PURCHASED | 16,817.77 | 96 | 49 | LOT B | 16 | SFC |
| | PHASE 2 | GOLF-SFC | PURCHASED | 18,420.74 | 108 | 49 | LOT B | 18 | SFC |
| | PHASE 2 | GOLF-TH | PURCHASED | 28,507.29 | 168 | 51 | LOT B | 13 | TH |
| | PHASE 2 | PARKING | LEASED | 3,734.25 | 0 | - | LOT C | 0 | N/A |
| | PHASE 2 | PARKING | LEASED | 23,377.34 | 0 | - | LOT F | 0 | N/A |
| | | SUBTOTAL PHASE 2 | 246,895.45 | 302,224.54 | 4,266 | | | 111 | |
| 2029 ~ 2038 | PHASE 3 | CONDOS | PURCHASED | 6,746.25 | 156 | 26 | LOT C | 1 | CONDO |
| | PHASE 3 | CONDOS | PURCHASED | 10,323.40 | 196 | 26 | LOT A | 1 | CONDO |
| | PHASE 3 | CONDOS | PURCHASED | 10,353.99 | 156 | 26 | LOT D | 1 | CONDO |
| | PHASE 3 | CONDOS | PURCHASED | 11,011.51 | 220 | 27 | LOT A | 1 | CONDO |
| | PHASE 3 | CONDOS | PURCHASED | 12,231.22 | 264 | 26 | LOT B | 1 | CONDO |
| | PHASE 3 | EMPLOYEE HOUSING | LEASED | 12,158.35 | 244 | 25 | LOT J | 1 | CONDO |
| | PHASE 3 | EMPLOYEE HOUSING | LEASED | 13,968.10 | 256 | 25 | LOT F | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 6,652.01 | 156 | 21 | LOT C | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 7,348.62 | 156 | 23 | LOT A | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 7,950.98 | 156 | 13 | LOT B | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 8,117.41 | 245 | 22 | LOT A | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 9,164.04 | 220 | 21 | LOT B | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 9,866.56 | 156 | 21 | LOT D | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 11,426.39 | 208 | 23 | LOT D | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 12,450.10 | 236 | 23 | LOT C | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 12,855.31 | 264 | 23 | LOT B | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 13,386.30 | 220 | 13 | LOT C | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 13,399.52 | 236 | 13 | LOT A | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 13,471.72 | 188 | 23 | LOT E | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 13,925.56 | 236 | 21 | LOT A | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 14,759.12 | 264 | 13 | LOT E | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 14,851.01 | 245 | 21 | LOT E | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 15,651.82 | 252 | 13 | LOT D | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 16,116.84 | 312 | 14 | LOT A | 2 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-CONDOS | PURCHASED | 16,634.79 | 264 | 14 | LOT B | 1 | CONDO |
| | PHASE 3 | GOLDEN TRAIL-TH | PURCHASED | 8,472.53 | 32 | 20 | LOT A | 2 | TH |
| | PHASE 3 | GOLDEN TRAIL-TH | PURCHASED | 29,640.22 | 104 | 17 | LOT A | 8 | TH |
| | PHASE 3 | GOLDEN TRAIL-TH | PURCHASED | 36,855.99 | 160 | 18 | LOT A | 12 | TH |
| | PHASE 3 | GOLDEN TRAIL-TH | PURCHASED | 40,384.25 | 176 | 19 | LOT A | 13 | TH |
| | PHASE 3 | GOLF-SFC | PURCHASED | 1,332.33 | 6 | 48 | LOT B | 1 | SFC |
| | PHASE 3 | GOLF-SFC | PURCHASED | 10,386.91 | 60 | 48 | LOT A | 10 | SFC |
| | PHASE 3 | GOLF-SFC | PURCHASED | 13,347.57 | 72 | 47 | LOT B | 12 | SFC |
| | PHASE 3 | GOLF-SFC | PURCHASED | 15,330.78 | 90 | 50 | LOT B | 15 | SFC |
| | PHASE 3 | GOLF-SFC | PURCHASED | 15,427.02 | 84 | 47 | LOT A | 14 | SFC |
| | PHASE 3 | GOLF-SFC | PURCHASED | 21,138.40 | 120 | 50 | LOT B | 20 | SFC |
| | PHASE 3 | GOLF-TH | PURCHASED | 22,356.81 | 144 | 52 | LOT A | 10 | TH |
| | PHASE 3 | PARKING | LEASED | 3,427.50 | 0 | - | LOT D | 0 | N/A |
| | PHASE 3 | PARKING | LEASED | 10,706.67 | 0 | - | LOT G | 0 | N/A |
| | PHASE 3 | PARKING | LEASED | 12,162.99 | 0 | - | LOT H | 0 | N/A |
| | | SUBTOTAL PHASE 3 | 483,367.28 | 535,790.89 | 6,554 | | | 143 | |

## BED UNITS & PHASING TABLE

| | PHASE | NAME | PURCHASED LEASED | LOT AREA (m2) | BED UNIT | CLUSTER NO. | LOT NAME | NO. OF BLDG. | TYPE OF BLDG |
|---|---|---|---|---|---|---|---|---|---|
| 2039 ~ 2048 | PHASE 4 | CONDOS | PURCHASED | 7,793.47 | 156 | 28 | LOT B | 1 | CONDO |
| | PHASE 4 | CONDOS | PURCHASED | 8,849.16 | 156 | 28 | LOT A | 1 | CONDO |
| | PHASE 4 | CONDOS | PURCHASED | 9,969.03 | 220 | 28 | LOT C | 1 | CONDO |
| | PHASE 4 | CONDOS | PURCHASED | 17,435.14 | 264 | 27 | LOT A | 1 | CONDO |
| | PHASE 4 | CONDOS | PURCHASED | 17,967.84 | 300 | 27 | LOT C | 1 | CONDO |
| | PHASE 4 | DAYLODGE | LEASED | 3,283.77 | 0 | 57 | LOT G | 1 | SERVICE |
| | PHASE 4 | EMPLOYEE HOUSING | LEASED | 7,712.70 | 176 | 25 | LOT I | 1 | CONDO |
| | PHASE 4 | EMPLOYEE HOUSING | LEASED | 7,864.93 | 176 | 25 | LOT H | 1 | CONDO |
| | PHASE 4 | EMPLOYEE HOUSING | LEASED | 11,702.09 | 237 | 25 | LOT A | 1 | CONDO |
| | PHASE 4 | FOUNDERS'-SFC | PURCHASED | 2,077.52 | 6 | 10 | LOT C | 1 | SFC |
| | PHASE 4 | FOUNDERS'-SFC | PURCHASED | 3,856.92 | 6 | 10 | LOT B | 1 | SFC |
| | PHASE 4 | FOUNDERS'-SFC | PURCHASED | 3,954.68 | 12 | 10 | LOT E | 2 | SFC |
| | PHASE 4 | FOUNDERS'-SFC | PURCHASED | 7,180.65 | 36 | 10 | LOT D | 6 | SFC |
| | PHASE 4 | FOUNDERS'-SFC | PURCHASED | 8,572.83 | 48 | 11 | LOT B | 8 | SFC |
| | PHASE 4 | FOUNDERS'-SFC | PURCHASED | 9,618.43 | 48 | 10 | LOT A | 8 | SFC |
| | PHASE 4 | FOUNDERS'-SFC | PURCHASED | 15,622.17 | 90 | 11 | LOT A | 15 | SFC |
| | PHASE 4 | GOLDEN TRAIL-SFC | PURCHASED | 4,510.96 | 24 | 62 | LOT B | 4 | SFC |
| | PHASE 4 | GOLDEN TRAIL-SFC | PURCHASED | 5,646.32 | 24 | 62 | LOT A | 4 | SFC |
| | PHASE 4 | GOLDEN TRAIL-SFC | PURCHASED | 6,634.96 | 24 | 62 | LOT C | 4 | SFC |
| | PHASE 4 | GOLDEN TRAIL-SFC | PURCHASED | 10,947.66 | 60 | 61 | LOT B | 10 | SFC |
| | PHASE 4 | GOLDEN TRAIL-SFC | PURCHASED | 11,943.52 | 66 | 63 | LOT E | 11 | SFC |
| | PHASE 4 | GOLDEN TRAIL-SFC | PURCHASED | 14,412.80 | 78 | 63 | LOT A | 13 | SFC |
| | PHASE 4 | GOLDEN TRAIL-SFC | PURCHASED | 15,571.91 | 84 | 63 | LOT B | 14 | SFC |
| | PHASE 4 | GOLDEN TRAIL-SFC | PURCHASED | 17,036.33 | 90 | 61 | LOT A | 15 | SFC |
| | PHASE 4 | GOLDEN TRAIL-SFC | PURCHASED | 17,943.52 | 102 | 63 | LOT D | 17 | SFC |
| | PHASE 4 | GOLDEN TRAIL-SFC | PURCHASED | 34,605.42 | 192 | 63 | LOT C | 32 | SFC |
| | PHASE 4 | GOLDEN TRAIL-TH | PURCHASED | 11,021.06 | 44 | 20 | LOT B | 3 | TH |
| | PHASE 4 | GOLDEN TRAIL-TH | PURCHASED | 20,722.35 | 88 | 16 | LOT B | 7 | TH |
| | PHASE 4 | GOLDEN TRAIL-TH | PURCHASED | 26,996.11 | 96 | 19 | LOT B | 8 | TH |
| | PHASE 4 | GOLDEN TRAIL-TH | PURCHASED | 36,974.16 | 96 | 16 | LOT A | 7 | TH |
| | PHASE 4 | GOLDEN TRAIL-TH | PURCHASED | 109,631.14 | 388 | 15 | LOT A | 28 | TH |
| | PHASE 4 | SEWAGE TREATMENT PLANT | LEASED | 3,710.54 | 0 | 54 | LOT D | 1 | SERVICE |
| | | SUBTOTAL PHASE 4 | 457,496.06 | 491,770.09 | 3,387 | | | 228 | |
| | | TOTAL | 1,738,978 | 1,987,906 | 20,089 | | | 779 | |

### *TABLE 4.3.: Development & Phasing Summary*

| DEVELOPMENT SUMMARY | | | | LAST UPDATED: DECEMBER 12, 2008 |
|---|---|---|---|---|
| **EXISTING - 2008** | | | | |
| **BLDG TYPE** | **BED UNITS** | **UNITS** | **BLDGS** | **LIFTS** |
| HOTEL | 0 | 0 | 0 | A: CATAMOUNT - QUAD CHAIR |
| CONDO | 812 | 213 | 15 | B: GOLDEN EAGLE EXPRESS GONDOLA - 8 PASSENGER |
| BED & BREAKFAST | 18 | 3 | 3 | C: STAIRWAY TO HEAVEN - QUAD CHAIR |
| TOWNHOUSE | 160 | 40 | 12 | D: PIONEER - QUAD CHAIR |
| SINGLE FAMILY CHALETS | 582 | 115 | 115 | E: BEGINNER LIFT - MAGIC CARPET |
| **SUBTOTAL** | **1,572** | **371** | **145** | |
| EMPLOYEE HOUSING | 0 | 0 | 0 | |
| MISC/SERVICE | 4 | 2 | 5 | |
| **TOTAL** | **1,576** | **373** | **150** | |
| | | | | |
| **PHASE 1 - 2009 ~ 2018** | | | | |
| **BLDG TYPE** | **BED UNITS** | **UNITS** | **BLDGS** | **LIFTS** |
| HOTEL | 500 | 260 | 2 | A: UPGRADE CATAMOUNT TO DETACHABLE QUAD CHAIR |
| CONDO | 2,566 | 742 | 13 | D1: NEW PIONEER (LOWER)- DETACHABLE QUAD CHAIR |
| BED & BREAKFAST | 0 | 0 | 0 | D2: NEW PIONEER (UPPER) - DETACHABLE QUAD CHAIR |
| TOWNHOUSE | 252 | 63 | 20 | E1: BEGINNER LIFT (LOWER) - MAGIC CARPET |
| SINGLE FAMILY CHALETS | 636 | 106 | 106 | E2: BEGINNER LIFT (UPPER) - MAGIC CARPET |
| **SUBTOTAL** | **3,954** | **1,171** | **141** | |
| EMPLOYEE HOUSING | 352 | 102 | 2 | |
| MISC/SERVICE | 0 | 0 | 4 | |
| **TOTAL** | **4,306** | **1,273** | **147** | |
| | | | | |
| **PHASE 2 - 2019 ~ 2028** | | | | |
| **BLDG TYPE** | **BED UNITS** | **UNITS** | **BLDGS** | **LIFTS** |
| HOTEL | 0 | 0 | 0 | |
| CONDO | 2,992 | 951 | 16 | F: CRYSTAL BOWL LIFT - DETACHABLE QUAD CHAIR |
| BED & BREAKFAST | 0 | 0 | 0 | G: CABRIOLET - DETACHABLE 8 PASSENGER PEOPLE MOVER |
| TOWNHOUSE | 280 | 70 | 21 | |
| SINGLE FAMILY CHALETS | 426 | 71 | 71 | |
| **SUBTOTAL** | **3,698** | **1,092** | **108** | |
| EMPLOYEE HOUSING | 568 | 194 | 2 | |
| MISC/SERVICE | 0 | 0 | 1 | |
| **TOTAL** | **4,266** | **1,286** | **111** | |
| | | | | |
| **PHASE 3 - 2029 ~ 2038** | | | | |
| **BLDG TYPE** | **BED UNITS** | **UNITS** | **BLDGS** | **LIFTS** |
| HOTEL | 0 | 0 | 0 | |
| CONDO | 5,006 | 1,611 | 24 | H: QUAD CHAIR |
| BED & BREAKFAST | 0 | 0 | 0 | I: DETACHABLE QUAD CHAIR |
| TOWNHOUSE | 616 | 154 | 45 | J: QUAD CHAIR |
| SINGLE FAMILY CHALETS | 432 | 72 | 72 | |
| **SUBTOTAL** | **6,054** | **1,837** | **141** | |
| EMPLOYEE HOUSING | 500 | 162 | 2 | |
| MISC/SERVICE | 0 | 0 | 0 | |
| **TOTAL** | **6,554** | **1,999** | **143** | |

| DEVELOPMENT SUMMARY | | | | LAST UPDATED: DECEMBER 12, 2008 |
|---|---|---|---|---|
| **PHASE 4 - 2039 ~ 2048** | | | | |
| **BLDG TYPE** | **BED UNITS** | **UNITS** | **BLDGS** | **LIFTS** |
| HOTEL | 0 | 0 | 0 | |
| CONDO | 1,096 | 364 | 5 | K: DETACHABLE QUAD CHAIR |
| BED & BREAKFAST | 0 | 0 | 0 | L: QUAD CHAIR |
| TOWNHOUSE | 712 | 178 | 53 | M: DETACHABLE 8 PASSENGER PEOPLE MOVER |
| SINGLE FAMILY CHALETS | 990 | 146 | 165 | |
| **SUBTOTAL** | **2,798** | **688** | **223** | |
| EMPLOYEE HOUSING | 589 | 185 | 3 | |
| MISC/SERVICE | 0 | 0 | 2 | |
| **TOTAL** | **3,387** | **873** | **228** | |
| | | | | |
| **SUMMARY AT FULL BUILD OUT - 2048** | | | | |
| **BLDG TYPE** | **BED UNITS** | **UNITS** | **BLDGS** | **LIFTS** |
| **HOTEL** | **500** | **260** | **2** | **BEGINNER LIFTS / MAGIC CARPETS: 2** |
| **CONDO** | **12,472** | **3,881** | **73** | **QUAD CHAIRS: 4** |
| **BED & BREAKFAST** | **18** | **3** | **3** | **DETACHABLE QUAD CHAIRS: 6** |
| **TOWNHOUSE** | **2,020** | **505** | **151** | **EIGHT PASSENGER GONDOLAS: 1** |
| **SINGLE FAMILY CHALETS** | **3,066** | **510** | **529** | **EIGHT PEOPLE MOVERS: 2** |
| **SUBTOTAL** | **18,076** | **5,159** | **758** | |
| **EMPLOYEE HOUSING** | **2,009** | **643** | **9** | |
| **MISC/SERVICE** | **4** | **2** | **12** | |
| **TOTAL** | **20,089** | **5,804** | **779** | **15** |
| | | | | |
| **TOTAL DEVELOPMENT BED UNITS** | **18,080** | | | |
| **TOTAL EMPLOYEE HOUSING** | **2,009** | | | |
| **TOTAL BED UNITS** | **20,089** | | | |

## 4.6. LAND ACQUISITION MODEL

The bed unit capacity permitted is based on the Comfortable Carrying Capacity (CCC) of the existing and proposed ski lifts. The proposed land acquisition is based on the Master Plan layout itself and the land areas indicated for the permitted number of bed units from phase to phase.

The land acquisition model provides for freehold tenure through approved subdivisions to accommodate bed units in the location and form indicated in the approved Master Plan according to the formula of the MDA. Leases provide for the main operations of the ski area, and related recreational activities. Rights of way for ski lifts will be provided over crown land, or land that is to be excluded from the crown grants, or land which forms a part of the general area of the Controlled Recreation Area. The Controlled Recreation Area (CRA) covers the base, the golf course (which may also be on leased land or freehold land, depending on final provincial disposition of land) and the entire skiable terrain, and remains a Crown land tenure under a license of occupation granted to KHMR

## 4.7. PHASING OF OTHER COMPONENTS

This Master Plan is intended to show the physical components at full build out, with only general projections as to the sequence or timing of the many different components that form the overall development. Components will be built following acquisition of the requisite rights and permits in a sequence that KHMR feels is logical from a business perspective and at a time when market conditions are favourable.

The phasing of some components of the project is based on the ski lift construction and capacity. While there must be flexibility in the precise sequence of lift construction, each lift will generate the need for associated amenities. Refer to Table 4.1, above, for lift construction phasing and bed unit calculations.

Similarly, as skier volumes increase, parking requirements must be increased. The phasing of administration and maintenance facilities, future commercial facilities and other components generally, will be a matter for KHMR management to determine from time to time, and it is the intent of this plan to provide the basic permission for pursuit of these facilities in accordance with permit requirements at the time, without implying a commitment to build these at any particular time or in any particular sequence, except as otherwise agreed.

## 4.8. PARK DEDICATIONS, GREEN SPACE & PHASING

KHMR is planning a network of dedicated public park areas in accordance with park dedication requirements of the Columbia Shuswap Regional District (CSRD). These spaces have been pre-planned as part of the overall concept of the Master Plan and are shown as special areas for each phase. They are an important component of the open space and trail system that will maintain a National Park quality setting of low density development nested in green spaces at the foot of the mountain for KHMR. A Parks Plan outlining the vision and goals of the park dedications is included in Appendix K of this Master Plan. A summary of the allocated park and green spaces is shown in the Table below.

*TABLE 4.4.: Park Dedication and Green Space Summary*

| PHASE | DEVELOPMENT AREA ($m^2$) | DEDICATED AREA ($m^2$) | ADDITIONAL AREA ($m^2$) | SUB TOTAL AREA ($m^2$) | PROVIDED (% ) |
|---|---|---|---|---|---|
| TOTAL EXISTING | 232,713.70 | 18,183.63 | 9,106.16 | 27,289.79 | 11.7% |
| TOTAL PHASE 1 | 318,505.74 | 17,647.65 | 11,131.31 | 28,778.96 | 9.0% |
| TOTAL PHASE 2 | 246,895.45 | 25,622.53 | 45,498.69 | 71,121.22 | 28.8% |
| TOTAL PHASE 3 | 483,367.28 | 13,353.81 | 23,216.77 | 36,570.58 | 7.6% |
| TOTAL PHASE 4 | 457,496.06 | 25,777.51 | 9,471.71 | 35,249.22 | 7.7% |
| | | | | | |
| **TOTAL ALL PHASES** | **1,738,978.23** | **100,585.13** | **98,424.64** | **199,009.77** | **11.4%** |

# 5. SOCIO-ECONOMIC AND MARKET ANALYSIS

## 5.1. POPULATION AND DEMOGRAPHIC PROFILE OF GOLDEN

### 5.1.1. Population of Golden

The regional population has remained stable over the past decade. Recent census data indicates a resident population of approximately 7,500 people in the Golden and region area surrounding KHMR. The Town of Golden has a population of approximately 4,000 persons. The surrounding rural area has a population of 3,155 residents.

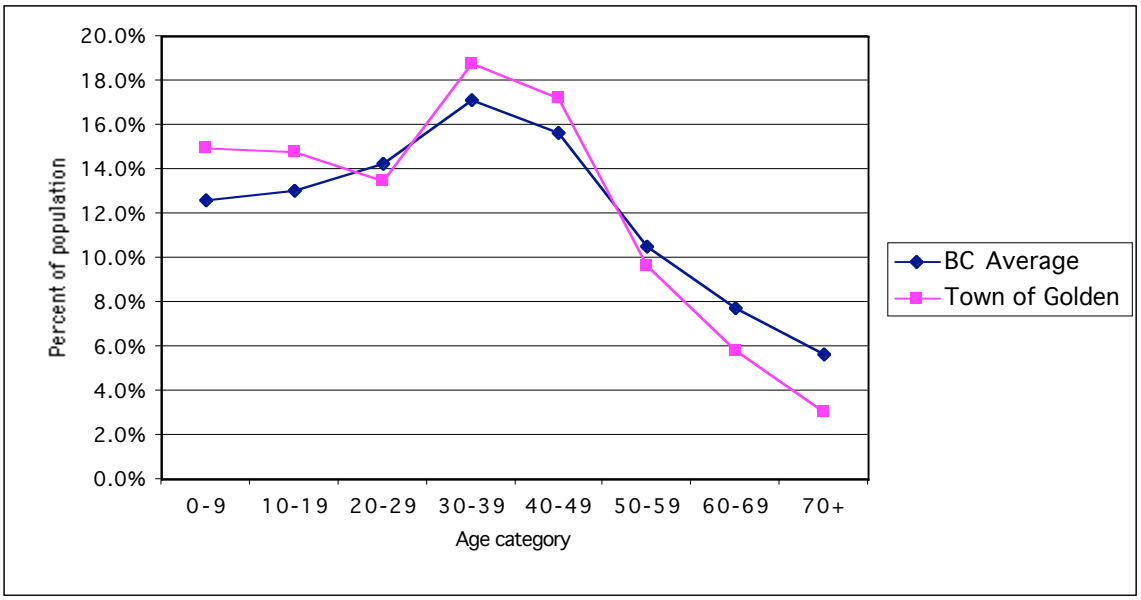
For the tourism and skiing potential of KHMR, the surrounding population base must be viewed in the context of the tourist corridors east and south of Golden, along the Trans Canada Highway and Highway 95. The combined resident and tourist accommodation in the area from Golden to Canmore and from Golden to Fairmont Hot Springs is estimated at more than 80,000 beds, representing the potential regional market for the KHMR.

The population of the Golden area is expected to grow slowly over the next decades. However projections currently do not take into account the effect of KHMR and its expansion.

### 5.1.2. Demographic Profile of Golden area residents

Golden area residents have a strong family orientation with more middle-aged persons and young children compared to the average B.C. population. The Town of Golden is reported to comprise 1,600 families as shown in Table 5.1. KHMR and its expansion will have a minimal effect on the age distribution of Golden area residents. Management staff required for the Resort will likely have a similar family orientation as the current distribution. Employees residing at the resort are expected to contribute a larger percentage of people in the 20 to 40 years of age brackets.

***TABLE 5.1.:***
***Age Analysis of Population in Golden***




*Source: B.C. Stats*

The family structure in the Town of Golden and the ratios of common law couples and lone parent families to husband–wife families are similar to the ratios of the total B.C. population as shown on Table 5.2.

***TABLE 5.2.: Family Structure***

| | Golden | B.C. |
|---|---|---|
| Total Census Families | 1,105 | 1,008,440 |
| Total husband-wife families | 940 | 869,430 |
| Total families of common-law couples | 155 | 103,865 |
| Total lone parent families | 165 | 139,010 |
| Never married sons and daughters at home | 1,350 | 1,133,315 |
| Under 6 | 340 | 274,470 |
| 6 – 14 years | 600 | 443,885 |

| | | |
|---|---|---|
| 15-17 years | 210 | 140,560 |
| 18 and over | 195 | 274,395 |

*Source: B.C. Stats*

The Town of Golden has a lower percentage of visible minorities than the average B.C. population. Data is not available for the Town of Golden; however, the data for the Columbia-Shuswap Regional District is presented in Table 5.3. KHMR and its expansion are not likely to affect the distribution of ethnic identity in the Golden area.

***TABLE 5.3.: Distribution of Ethnic Identity***

Percent of Population

| | Columbia-Shuswap | B.C. |
|---|---|---|
| Chinese | 0.1 | 8.1 |
| South Asian | 0.6 | 4.3 |
| Filipino | 0.2 | 1.3 |
| Japanese | 0.4 | 0.8 |
| Other Single | 0.6 | 3.1 |
| Multiple Origins | 0.1 | 0.3 |
| **Subtotal** | 2.0 | 17.9 |
| Aboriginal Origins | 3.7 | 3.8 |
| **Total** | 5.7 | 21.7 |

*Source: B.C. Stats*

### 5.1.3. Average Income and Dependence on Welfare and EI

The average income of Golden residents is below the average B.C. resident. The median household income, based on 1550 households, was reported by Census Canada to be $44,929 in 2001. Lower incomes are due to the inconsistent employment opportunities in Golden. KHMR will provide above average income for the management staff with seasonal workers and some staff positions earning below this level.

More than two thirds of the Golden households own their dwellings. However, a larger proportion t of residents in the Town of Golden compared to the averages for B.C. still depend upon employment income. KHMR will offer significant opportunities for small businesses and likely increase the self employed category for Golden residents.

***TABLE 5.4.: Source of Income***

| | Golden | | B.C. |
|---|---|---|---|
| | **$(000's)** | **% of Total** | **% of Total** |
| Employment | 85,303 | 78.4 | 70.2 |
| Pension | 5,692 | 5.2 | 9.8 |
| Investment | 5,711 | 5.3 | 8.7 |
| Self Employed | 4,267 | 3.9 | 5.4 |
| Other | 5,807 | 5.3 | 5.1 |
| Tax Exempt | 1,977 | 1.8 | 0.8 |
| Total | 108,757 | 100.0 | 100.0 |

*Source: B.C. Stats*

Golden area residents are significantly less dependent upon basic welfare benefits. Only 3.7% of Golden area residents collect welfare benefits compared to the B.C. average of 6.4%. Golden area residents collect more employment insurance benefits at 7.4% of the population compared to 4.3% for B.C.

Based on the above statistics, Golden area residents have a desire to work but their employment opportunities are inconsistent, resulting in larger employment insurance claims. The start-stop cycle of the forest industry is a major contributor to this effect. Although the forest industry provides high hourly wage rates, the forest industry does not always provide consistent, steady employment. KHMR will provide consistent, steady employment.

## 5.2. GOLDEN AND DISTRICT ECONOMY

The area comprises Subdivision A of Columbia-Shuswap Census Division (Regional District) and local municipalities with a total land area of approximately 1,382,150 hectares. The census area includes the Town of Golden and the communities of Field and Parson.

### 5.2.1. General Economy

During the late 1950s and the 1960s the area grew rapidly on the strength of forest industry developments and completion of the Rogers Pass section of the Trans-Canada Highway. In the early 1970s, significant employment was provided in a major rail relocation project at the south end of the Mica Reservoir (Kinbasket Lake). CP Rail also undertook a $600 million tunnel and upgrading project in the construction period extending from 1982 to 1988. The growth of rail traffic on both segments of the CP Rail line through the area and the construction of a car repair and diesel maintenance shop at Golden (officially opened late

1987), have been accompanied by employment gains. All three industry groups (forestry, railway, and highway services) are expected to remain the foundation of the local economy. A major upgrade of the 30 kilometers of Trans Canada Highway East of Golden is expected to generate a total capital investment of approximately $972 million.[1] Work has been under way in the last two years and a significant portion of the improvements has been completed. Additional growth will be derived from tourism, as the area is expanding its summer and winter attractions and facilities, and will benefit from its proximity to renowned National Parks now subject to overcrowding.

### 5.2.2. Manufacturing

The largest manufacturing concern is the former Evans Forest Products Co. Ltd. acquired by Louisiana Pacific. In addition to a number of smaller sawmills in the area, manufacturing includes printing and publishing, ready-mix concrete, signs, a machine shop, a wood truss company, a timber frame construction company, camping supplies and hot tubs.

### 5.2.3. Forestry

The area comprises the Golden Timber Supply Area and the extreme northern section of the Invermere Timber Supply Area.

The current allowable annual cut (AAC) in the Golden Timber Supply Area is 485,000$m^3$ and is calculated by the Ministry of Forests to be about the same as the Ministry of Forests' latest calculation of the long-term sustainable harvest rate.

According to the latest *Golden Timber Supply Analysis Report*[2], "The timber supply analysis indicates that based on current inventory, growth and yield, and forest management information, timber harvests in the Golden TSA can be maintained at the current level for 10 years."

The report also explains:

> A socio-economic assessment indicates that the forest industry is the largest private sector source of basic income in the Golden TSA economy. The current level of harvesting supports an estimated 655 person-years of local employment annually (includes direct, indirect and induced jobs) and $29.4 million in employment income. The 2003 socio-economic analysis for the Golden TSA indicates that the current AAC of 530 000 cubic metres per year, if fully harvested could support a total of approximately 859 person-years of local employment. Approximately 78% of the direct jobs are held by residents of the Golden TSA. After the first decade, the reduction as shown in the base case forecast, could reduce the number of direct, indirect and induced jobs across the province by an estimated 140 person-years. As well, it could reduce annual provincial government revenues by approximately $1.8 million in decade 2.

[1] http://www.th.gov.bc.ca/kickinghorse/khc_project_detail.htm

[2] *Golden Timber Supply Analysis Report*; BC Ministry of Forests, August 2003; pg v.

### 5.2.4. Agriculture

This is a mixed farming district with much of the production marketed locally. Beef cattle are the main source of revenue; however, climatic conditions hinder development of the industry, as the winter feeding period is long. In 1991 there were 72 census farms (those with sales of $250 or more) in the area. Statistics for 18 farms in the Revelstoke Area are included in the following summary. Of 15,898 acres covered by the 90 farms, only 2,556 acres were under crops, including 2,408 acres in hay. Only 20 farms reported sales of $10,000 or more and most operators rely on off-farm employment to some extent. Cattle numbered 1,560 head. Total farm capital value was estimated at $20 million, and sales receipts at $749,000.

### 5.2.5. Mining

Mining contributes to the local economy and there is no indication that it will cease to do so. This area contains three significant past producers: the Monarch Mine at Field, the Giant Mine near Harrogate (56 km. south of Golden), and the Ruth Vermont property, west of Harrogate. The Ruth Vermont was put into production in 1970 by Copperline Mines Ltd. and it has operated intermittently under various ownerships since then as metal prices fluctuated. Areas around the Ruth Vermont Mine and near the former Big Bend of the Columbia River are classed as possessing high mineral potential and could lead to further development. Silica deposits near Golden are mined with the output used primarily for producing glass in Western Canada. One active producer is the Highwood Resources Ltd. Moberly Mine, which has potential for growth. Production of silicon metal may be a future possibility.

### 5.2.6. Employment

The Town of Golden reports the major employment sources as follows:

- Manufacturing (forestry) : 450 employees
- Public Sector: 337 employees
- Hospitality and Recreation: 250 employees
- Transportation (railway): 212 employees
- Food Distribution: 105 employees
- Machine Shop/Concrete Production: 44 employees
- Building Supplies: 40 employees
- Highway maintenance: 32
- Financial Services: 24 employees

Construction and independent contractors to the forestry industry include significant numbers that are not tabulated. Recent cutbacks in the forestry industry have decreased the significance of the sector, but KHMR will continue to provide a positive stimulus to the economy. KHMR has a policy giving preference to area residents in its selection of candidates for employment. For the immediate future, tourism and construction remain the industries with the greatest potential for improving the economy of the Town of Golden and the surrounding area. The KHMR expansion is anticipated to generate at least 500 construction jobs per year until build out, and a similar number of full time employees to serve the hotels and food and beverage premises at the resort. Mountain operations and the golf course are expected to

generate at least 300 permanent jobs and 600 part time jobs. Hotels and food and beverage will generate at least 500 full time jobs.

### 5.2.7. Construction Activity

KHMR has significantly increased construction activity in the Golden area. Following the start of KHMR, building activity increased by more than $25 million per year. Impact on the construction work force in the area and local contractors has been impressive, drawing contractors and construction workers from other parts of B.C. and from Alberta, and it has been be a major boost to the economy of Golden. As KHMR will grow according to its expansion plan, the construction industry is expected to generate up to two and a quarter billion dollars of building activity, with an estimated total payroll up to build out of approximately one and a quarter billion dollars.

### 5.2.8. Land Values

Before the creation of KHMR, property values in the Town of Golden were well below the B.C. average. The average assessment as of July 1, 1996 was $85,227 compared to the then B.C. average of $197,476. Increased economic activity brought by the nascent resort, together with an upsurge in the values of real estate due to improved economic conditions and to renewed interest from Albertans, has provided a significant increase to these assessments, which have more than doubled and have caught up with and surpassed the B.C. average at KHMR. Lot and building values at KHMR are significantly higher than the Town of Golden due to the desirability of resort properties. 18,000 square foot lots have been sold at prices in the range of $350,000, townhomes of 1,600 square feet at $750,000 and condos of 950 feet at $425,000. Despite market fluctuations, development costs and selling prices are expected to continue to rise, and land values will continue to justify and support the construction of the larger bed base for a destination resort with vacation homes of a great variety of sizes and types.

## 5.3. COMMUNITY AND ECONOMIC IMPACTS

### 5.3.1. Community Impacts

The major impact on the Town of Golden has been and will continue to be the generation of employment. The permanent employment generated is approximately 320 full time and part time positions, with an additional 500 to 800 construction jobs per year generated during the construction of the development.

#### 5.3.1.1. Schools

The current school system in Golden has the ability to absorb the impact of the additional families attracted to Golden due to the construction of the resort. In recent years the School District has experienced declining enrolment in the school system.

#### 5.3.1.2. Hospital

The Golden & District Hospital has sufficient beds and capacity to absorb the additional demands from the new residents. Procedures may need to be developed to handle the increase in accidents that will result from increased skier activity at the ski area. The majority of these accidents will be minor in nature but it should be anticipated that serious injury victims would require transfer to the Town's Hospital.

#### 5.3.1.3. Traffic

The increase in activity at KHMR will increase traffic along the access roads. A traffic study by McElhanney Consulting Services recommends necessary upgrades and improvements (to three intersections and the one lane access bridge) which will be implemented in accordance with the growth of the resort and in conjunction with the appropriate Ministries and jurisdictions. The Traffic Study is located in Appendix G.

#### 5.3.1.4. Employee Housing

A critical component of fulfilling KHMR's vision to develop a world-class destination resort is the development of a comprehensive and progressive human resources strategy to ensure adequate talent and resources. This strategy will not only include the organizational development and structure planning, but also focus on KHMR's employment brand strategy and reputation as an employer of choice within the resort, recreation and tourism industries.

In a 2004 housing planning study by the Government of British Columbia, small communities in British Columbia who depended on tourism as their primary source of revenue and employment identified the lack of affordable rental housing for seasonal workers as a critical issue.3 Providing dedicated, affordable staff accommodation on-resort not only provides competitive advantage for the resort by meeting a key need in the employment market, but also lessens the burden on the surrounding community.

Accommodation facilities would be designed to meet the following key objectives:

1) Provide comfortable, safe and well-maintained on-resort accommodation for staff;

2) Provide internal resources for administration and resolution of tenancy issues, and

3) Ensure that rent points are positioned to prioritize both affordability and sustainability.

##### 5.3.1.4.1. Development Timeline

Gradual growth of the resort base village will include development of staff accommodation, planned progressively according to development phases.

3 Government of British Columbia. Ministry of Community, Aboriginals, and Women's Services. Housing Policy Branch. *Planning for housing, 2004: an overview of local government initiatives in British Columbia.* Available: http://www.housing.gov.bc.ca/housing/planhouse/2004/planning_for_housing_2004.pdf. (Internet). [2004].

The goal is to commit approximately 10% of available housing for staff, for an ultimate build out of approximately 2,009 staff bed units.

***TABLE 5.5.: Employee Housing Development Timeline***

| Phase | Beds | Units | Buildings | Coordinators |
|---|---|---|---|---|
| 2009-2018 | 352 | 102 | 2 | 1 |
| 2019-2028 | 568 | 194 | 2 | 0 |
| 2029-2038 | 500 | 162 | 2 | 1 |
| 2039-2048 | 589 | 185 | 3 | 1 |
| **TOTAL AT BUILD OUT** | **2,009** | **643** | **9** | **3** |

#### 5.3.1.4.2. Layout & Amenities

Staff accommodation facilities will be designed after traditional staff or student accommodation models. A total of 9 buildings will each house an average of 70 furnished co-ed and single-sex units. These units will be mostly 4-bedroom shared units, with some 1- and 2-bedroom units available. The specific mix will be determined in consideration of the needs of the employee base and provide a range of rent points. Each building will offer shared kitchens, bathrooms, and common area and individual locker facilities. Facilities will be designed to accommodate the diversity representative of most seasonal operation positions and their average hours worked, we can develop a matrix of rent cost point tolerances.

***TABLE 5.6.: Employee Housing Affordability Analysis***

| | | | |
|---|---|---|---|
| Wage Rate | $8.00 | $11.50 | $15.00 |
| Monthly Income (average hours) | $1,110 | $1,600 | $2,080 |
| **Affordability Threshold** | **$333** | **$480** | **$624** |

Rent points would be established with the goal of meeting these affordability thresholds; however, we will also utilize benchmark pricing on rental accommodations in the surrounding communities and competitor resorts. This will ensure accommodation costs are anchored appropriately to the local market and that staff accommodation is feasibly sustainable from a financial perspective.

#### 5.3.1.4.3. Employee Housing Administration

All staff accommodation arrangements would be managed under the Hotel

Keepers Act of British Columbia. The property and units would be managed directly by Kicking Horse Mountain Resort to ensure accommodation quality and to utilize economy of scale in resort maintenance resources and supplies.

Staff accommodation would be arranged at the time of hire and offered on a nightly basis, to allow flexibility of moving dates and minimize cost to employees. For ease of administration, employees could elect to deduct the nightly cost of accommodation from their bi-weekly paycheque.

Staff accommodation would be administered by Housing Coordinators within the Employee Experience team. This role would be responsible for maintaining occupancy records, accepting new applications for staff housing, communicating housing policies to staff residents, managing resident concerns and issues, coordinating moves, compiling and communicating maintenance requests to the appropriate resources, and calculating and processing payments and communicating that information to the Payroll department. It is estimated that one Housing Coordinator will be needed for every 200 active units.

### 5.3.2. Economic Impact

KHMR will continue to have a major positive economic impact on the Town of Golden and the surrounding area.

***TABLE 5.7.: Current Visitor Volumes***

| | |
|---|---|
| **Winter** | |
| Day Skiers | 70,000 |
| Overnight Skiers | 60,000 |
| Non Skiers | 8,000 |
| **Total** | **138,000** |
| | |
| **Summer** | |
| Overnight Visitors | 15,000 |
| Day Visitors | 15,000 |
| **Total** | **30,000** |

Projections are that on completion of buildout of the project according to the expanded Master Plan there will be 450,000 overnight visitors and 150,000 day skiers in winter and 100,000 overnight visitors and 100,000 day visitors in summer. Table 5.8. shows the following are projected expenditure at the completed resort. Note the lift ticket price and other prices reflect season passes, children rates and discounting.

*TABLE 5.8.: Projected Average per Day Spending*

| | Day Visitor | Overnight Visitor |
|---|---|---|
| **Winter** | | |
| Lift Tickets | $38.00 | $40.00 |
| Transportation | $15.00 | $30.00 |
| Ski Rentals & lessons | $3.00 | $10.00 |
| Entertainment | $5.00 | $15.00 |
| Food & beverage | $15.00 | $70.00 |
| Retail & others | $4.00 | $20.00 |
| Accommodation | | $90.00 |
| **Totals** | $80.00 | $275.00 |
| | | |
| **Summer** | | |
| Lift Tickets | $15.00 | $8.00 |
| Transportation | $20.00 | $20.00 |
| Recreation | $5.00 | $10.00 |
| Entertainment | $0.00 | $15.00 |
| Food & beverage | $10.00 | $50.00 |
| Retail & others | $4.00 | $15.00 |
| Accommodation | | $100.00 |
| **Totals** | $54.00 | $218.00 |

The total direct spending resulting from the visitor volumes and spending per visitors is shown in Table 5.9. The total direct spending is projected on the basis of 450,000 overnight skier visits and 150,000 day skiers at build out in winter. The projection will be 100,000 overnight visitor and 100,000 day visitor at build out in summer. Projections are based on 2008 dollars. The majority of this direct spending will flow into KHMR and the Town of Golden primarily due to the labour intensive nature of tourism.

The indirect and induced economic impacts have been projected using relationships derived from the Tourism Vancouver economic impact model that has been used successfully for many years in estimating tourism impacts.

***TABLE 5.9.: Direct Spending Estimates***

| | |
|---|---|
| Day Skiers | $12,000,000 |
| Overnight Guests | 123,750,000 |
| **Total** | $135,750,000 |
| **Summer** | |
| Overnight Visitors | 21,800,000 |
| Day Visitors | 5,400,000 |
| **Total** | $27,200,000 |
| **Total direct spending** | $162,950,000 |

Presented in Table 5.10. are the direct, indirect and induced economic impacts. The approach used is very conservative with a total impact only 1.4 times direct spending. Many tourism economic models assume gross multipliers of between 1.6 to 2.5 times direct spending.

***TABLE 5.10.: Direct, Induced and Indirect Economic Impacts***

| | |
|---|---|
| Direct Impact | $162,950,000 |
| Indirect Impact | 48,873,000 |
| Induced Impact | 14,661,900 |
| **Total Impact** | $226,444,900 |

The total economic impact on the Town of Golden region will be significant.

The benefits of the project to all levels of government will be important. Presented in Table 5.11. is the annual projected return to the provincial government. At build out KHMR is expected to generate provincial taxes in the range of $43 million per year.

*TABLE 5.11.: Annual Provincial Taxes Generated*[4]

| Construction Phase | Estimated Value | Tax Revenue |
|---|---|---|
| Total Construction to build out | 2,250,000,000 | |
| Total estimated payroll on construction | 1,237,500,000 | |
| **Provincial Income Tax (60% calculated at 8.4%, 20% at 12.4% and 10% at 14.35%)** | | **110,818,125** |
| Social Service Tax on construction materials | 1,012,500,000 | 70,875,000 |
| | **Total Provincial Tax Revenue** | **$181,693,125** |

| Operational Phase | Estimated Value | Tax Revenue |
|---|---|---|
| Estimated Yearly Hotel Payroll at completion | 18,000,000 | |
| Estimated Yearly Golf course Payroll at completion | 925,000 | |
| Estimated Yearly Mountain Lift Operations Payroll | 20,000,000 | |
| Total at Completion | 38,925,000 | |
| **Provincial Income Tax (60% calculated at 8.4%, 20% at 12.4% and 10% at 14.35%)** | | **$3,485,734** |

| Yearly Provincial Taxes | Estimated Value | Tax Revenue |
|---|---|---|
| Room Revenue at 50% occupancy (500 rooms at average rate of $150) | 13,500,000 | |
| Hotel Room Tax | | 1,620,000 |
| Social Service Tax (on estimated services and activities) | 8,100,000 | 607,500 |
| Provincial Income Tax on Payroll | | 3,485,734 |
| Property Taxes (3000 Condominiums @15.6 per $1,000) | 1,500,000,000 | 23,400,000 |
| Property Taxes (507 private residential units @ 15.6 per $1,000) | 507,000,000 | 7,909,200 |

[4] in 2008 dollars.

| | | |
|---|---|---|
| Property Tax Hotel (@30.2 per $1,000) | 150,000,000 | 4,530,000 |
| Corporation Capital Tax (at 0.3%) | 125,000,000 | 375,000 |
| Corporate Tax (@ 16.5) | 6,480,000 | 1,069,200 |
| | **Total Yearly Provincial Tax Revenue** | **$42,996,634** |

### 5.3.3. Impact on Business Activity in Golden

#### 5.3.3.1. Impact of Visitor Spending

The businesses primarily affected in the Town of Golden will include hotels, restaurants, retail sector, transportation and activity based recreation companies. A portion of the resort visitors, will stay in the Town of Golden hotels for three reasons:

- The bed base at the resort will trail the growth of tourism and will continue to be of limited size.
- The lower priced accommodation offerings in the Town Golden will be attractive to a particular market niche of visitors.
- Stopping in Golden without driving up to the mountain will add convenience for a number of visitors, specially for late arrivals.

Assuming at least 10% of the overnight visitors to KHMR stay in hotels in the Town of Golden, this translates into 55,000 additional room nights increasing the occupancy in hotels in the Town of Golden.

Restaurant and retail shops will obtain business from overnight visitors and visitors travelling through to the resort. KHMR will offer no gas station and will generally rely upon the major services in the Town of Golden. Assuming 20% of the direct expenditures by visitors occur in the Town of Golden this translates into annual direct spending in the range of $32 million per year after build out.

The largest impact on the Town of Golden will be felt during the peak periods including Christmas, Spring Break, weekends and the middle of summer. Accommodations can be expected to be in short supply during these peak periods. The positive economic impact of resort areas on nearby towns is demonstrated by the success of Canmore in Alberta and Squamish in British Columbia.

#### 5.3.3.2. Impact on Suppliers

KHMR will require a broad range of supplies including food, equipment, repair parts, fuel and services. A significant portion of these should be available through suppliers in the Town of Golden. The ski area operator alone may spend approximately $4 million a year on supplies for the business. Other resort businesses will also expend significant amounts on supplies.

#### 5.3.3.3. Construction Impacts

The total value of construction of the KHMR expansion will exceed $800 million over the first ten years of development. A broad range of construction materials will be required, many of which can be obtained from local suppliers in the Town of Golden.

Services such as contractors and equipment suppliers from the Golden area will likely continue to be utilized for many phases of the construction. Operations such as the digging of wells, installation of telephone and water lines can be performed by local contractors. A significant portion of the construction labourers can be accessed from the Golden area as previously mentioned in the employment section. Construction workers will require accommodation, food services, meals and a broad range of support services during the construction period. The economic impact of the construction will be felt throughout the Town of Golden over the growth period of KHMR, until when permanent employment for the services of the completed resort will replace construction employment.

### 5.3.4. Summary of Economic Benefits of KHMR's Expansion at Build Out

#### 5.3.4.1. Direct Benefits

The total project, planned in several phases for a total development of approximately 18,000 tourism beds to be completed during the next quarter of century, will involve a total capital investment expected to exceed $5 billion.

It is expected to generate more than 500 construction jobs per year, mostly local, over an anticipated 25 to 30 years period. At build out it is expected to generate more than 800 full time jobs and 1,200 part time jobs, including mountain operations and resort hotels and businesses.

It will provide more than 80,000 square feet for new local commercial space and facilitate at least 35 new businesses as well as the expansion of existing local businesses.

It will generate an estimated $6 million a year in local property taxes.

#### 5.3.4.2. Indirect Benefits

1. Visibility and Destination:

The project will create a destination generating more visitors stopping and entering Golden, primarily through the improved highway from Calgary .

2. Tourism:

The new bed base will provide an opportunity to achieve destination status and an overnight visitor population rather than depending from a commuter visitor population. Even with initially low occupancy rates, on completion the project owners and visitors

will generate over $32 million a year spent in the Town of Golden.

3. More projects:

The KHMR project will revitalize the heart of Golden encouraging additional development and investment, and creating the critical mass required for a tourism destination. The good will generated by the project will bring more investment in the region.

4. Expenditure multiplier:

It is common to estimate a multiplier factor of 2.5 for every dollar spent in tourism development as an indirect contribution to the local economy.

## 5.4. MARKET ANALYSIS

### 5.4.1. Demand for Summer Visitors

#### 5.4.1.1. Visitor's Centre Activity

There is a growing demand supporting the visitor information centre in the Town of Golden. Over 3,000,000 visitors annually pass through Golden on their way to the five National Parks located within the region. During the busy summer days this translates into 17,000 to 18,000 persons per day.

Assuming a future capture rate of 20 to 30% of the traffic flow, this converts into 3,400 to 5,100 people per day, or 425 people per hour based on a 12 hour day. Assuming an average stay of 1/2 hour, this would convert into 140 to 212 people at the Visitor's Centre at any one time. The Visitor's Centre can be a great source of visitors for KHMR, especially during the summer season.

#### 5.4.1.2. Spring and Summer Activities

The Golden area is an unparalleled location for vacations. Organised activities include white water rafting, mountain biking, wildlife viewing, rock climbing, glider plane tours, hang-gliding and paragliding, and a variety of other activities. The Mount Seven launching area is the site of annual international competitions. KHMR will have its own eighteen hole golf course, but next to KHMR is the Golden Golf Club, one of the best in B.C., currently being expanded with another course. Golden is also the historic home of Canadian mountaineering and makes an excellent starting point for mountain treks, and Banff, Glacier and Yoho National Parks are close by. The Golden Region also boasts excellent fishing.

#### 5.4.1.3. Summer Hotel Demand

At the present time there are a minimum of 50-60 buses during the summer season,

travelling the #1 Highway. Hotels located at Banff and Lake Louise have insufficient capacity to deal with the large volume of bus traffic. Hotel properties in Golden are currently servicing a portion of this traffic, with three to four buses per night in Golden, at the Prestige Inn, Best Western, Ramada and Super 8.

KHMR can attract the upper end of the tourist bus market and not compete directly with the Golden properties for this tourism business.

A sample of tour bus companies travelling this route includes Tauck Tours, Ingrams, Japan Travel Bureau, Maverick Tours, Black Velvet Tours and Brewster Tours.

KHMR can capture a portion of the transient upscale motorist traffic travelling though the National Parks, referred to as “rubber tire” traffic.

There appears to be no lack of demand for quality hotel room nights located in the Golden Region. The hotels need to be oriented toward international destination traffic, as these travellers are prepared to pay premium hotel rates.

Demand for hotel accommodation at the resort base should be strong through the summer months between May and October. The current hotels in the National Parks average close to 90% occupancy for this six-month period. KHMR quality hotel accommodation should perform with similar occupancies in the 80 to 90% range over the summer period following the first years of operation. A reasonable average annual occupancy would be about 73% by the fifth year. Presented in Table 5.10 is a summary of the major market segments and the expected number of room nights to be generated for a hotel that has reached maturity, starting with the first phase of the expansion.

***TABLE 5.12.: Projected Summer Room Night Demand for a Hotel at KHMR***

| | | |
|---|---|---|
| Tour Bus Patrons | 12,600 | 40.0% |
| Conference Attendees | 5,400 | 17.1% |
| Transient traffic | 5,400 | 17.1% |
| Golfers | 4,500 | 14.3% |
| Rafters & Sightseers | 3,600 | 11.4% |
| **Total** | 31,500 | 100.0% |
| | 180 days | |
| Average summer demand per day | 175 rooms | |

The proposed hotel facilities will have some conference and meeting rooms oriented towards the upscale corporate and incentive travel market. Additional conference

related commercial facilities might also be available in the resort base area. Conferences in the range of 50 to 100 persons should frequently occupy portions of the hotel.

The resort hotel should capture a portion of the transient upscale “rubber tire traffic” travelling through the National Parks.

A conservative allocation has been projected for 25 rooms per day for golfers, projected from the number of rounds that would be available at the Golden Golf and Country Club, based on current activity levels.

An allocation of room nights is being provided for sightseeing, rafting and other adventure activities that are available in the Golden area.

***TABLE 5.13.:***
***Number of Competing Hotel Rooms in the National Parks Ski Areas***

| Ski Area | Number of Hotel Rooms |
|---|---|
| Banff | 3,720 |
| Lake Louise | 1,076 |
| Kananaskis | 415 |
| Jasper | 2,056 |
| **TOTAL** | **7,267** |

The restrictive development policies of Parks Canada will prevent further accommodation being added into the Lake Louise area and will limit the ability of Lake Louise to further penetrate the important international destination market.

#### 5.4.1.4. Competitive Golf Courses

The golf courses in the Columbia Valley, National Parks, Canmore and Kananaskis are the primary alternatives to the Golden Golf and Country Club course. Presented in Table 5.39 is a summary of the golf courses in the regional area. The course at Golden is rated as one of the best golf courses in the Province of B.C. The Golden course achieves 32,000 rounds of play per year. The Golden course has 400 members but also allows public play. The Golden Golf and Country Club is expanding with another eighteen hole golf course, and will continue to represent an important summer recreation activity for KHMR. With the construction of a signature golf course at KHMR, the Golden area will become an attractive golf course destination for all National Parks visitors.

*TABLE 5.14.: Analysis of Competitive Golf Courses*

| | Fairmont Hot Springs Resort-Mountainside | Fairmont Hot Springs Resort-Riverside | Fernie | Golden | Kimberley | Radium Hot Springs Resort | The Spring's | Windermere | Banff Springs Hotel Course | Canmore | Kananaskis |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Location** | Fairmont Hot Springs | Fairmont Hot Springs | Fernie | Golden | Kimberley | Radium | Radium | nvermere | Banff | Canmore | Kananaskis Village |
| **Public, Private or Resort** | Resort | Resort | Public | Semi-Private | Public | Resort | Semi-Private | Public | Public | Public | Resort |
| **Driving Range** | no | yes | yes | yes | yes | no | Yes | yes | yes | Yes | yes |
| **Pro Shop** | yes | yes | yes | yes | yes | yes | Yes | yes | yes | Yes | yes |
| **Mens/Ladies Par** | 72/72 | 71/71 | 70/70 | 72/72 | 71/72 | 69/69 | 72/72 | 66/68 | 71/71 | 71/71 | 72/72 |
| **Number of Rounds** | 40,000 | N/A | N/A | 32,000 | N/A | N/A | 36,000 | N/A | N/A | N/A | |

## 5.4.2. Demand for Winter Skiers

### 5.4.2.1. Fall and Winter Activities

Nestled in the Columbia River Valley, between the massive Rockies and Purcell Range of the Columbia Mountains, the Golden area offers a world of outdoor adventures. In the fall season, wildlife activities are at their peak. At the Columbia Wetlands, waterfowl abounds and there are sensational viewing opportunities. History buffs can also visit the Golden and District Museum which traces history back to the first visit of David Thompson in 1807.

In winter, there are snow-covered mountains, endless terrain, powder, and sunshine, combining to create a memorable vacation. The region boasts world class heli-skiing, cross country skiing, snowmobiling and snowshoeing. With the development of KHMR as its ski area, Golden offers first class downhill skiing with on-site accommodation and facilities. There are also opportunities for dog sled rides, horse-drawn sleigh rides and open air ice skating.

### 5.4.2.2. Demand for Downhill Skiers in British Columbia and Alberta

Skier visits in both Alberta and B.C. were analyzed for the original KHMR Master Plan submitted in 1998. Skier visit growth in B.C. averaged 3.5% compounded annually for 1986/1997. Alberta averaged 3.0% compound average growth rate over the same time period.

***TABLE 5.15.:***
***Demand for Skiers in BC and Alberta, 1984-2007***

| | ALBERTA | | | | BRITISH COLUMBIA | | | | TOTAL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ski Season | Total Skier Visits | % Annual Change | No. of Areas | Average Visits/ Area | Total Skier Visits | % Annual Change | No. of Areas | Average Visits/ Area | Total Skier Visits | % Annual Change | No. of Areas | Average Visits/ Area |
| 1984/85 | 1,509,819 | | 13 | 116,140 | 2,761,018 | | 33 | 83,667 | 4,270,837 | | 46 | 92,844 |
| 1985/86 | 1,576,787 | 4.4% | 16 | 98,549 | 2,428,277 | -12.1% | 33 | 73,584 | 4,005,064 | -6.2% | 49 | 81,736 |
| 1986/87 | 1,754,774 | 11.3% | 19 | 92,357 | 2,647,636 | 9.0% | 33 | 80,231 | 4,402,410 | 9.9% | 52 | 84,662 |
| 1987/88 | 1,508,373 | -14.0% | 22 | 68,562 | 3,196,148 | 20.7% | 36 | 88,782 | 4,704,521 | 6.9% | 58 | 81,112 |
| 1988/89 | 1,801,521 | 19.4% | 19 | 94,817 | 3,342,645 | 4.6% | 24 | 139,277 | 5,144,166 | 9.3% | 43 | 119,632 |
| 1989/90 | 1,964,072 | 9.0% | 19 | 103,372 | 3,188,927 | -4.6% | 33 | 96,634 | 5,152,999 | 0.2% | 52 | 99,096 |
| 1990/91 | 1,934,512 | -1.5% | 21 | 92,120 | 3,339,188 | 4.7% | 31 | 107,716 | 5,273,700 | 2.3% | 52 | 101,417 |
| 1991/92 | 1,808,541 | -6.5% | 26 | 69,559 | 3,411,004 | 2.2% | 39 | 87,462 | 5,219,545 | -1.0% | 65 | 80,301 |
| 1992/93 | 1,574,129 | -13.0% | 25 | 62,965 | 3,799,054 | 11.4% | 41 | 92,660 | 5,373,183 | 2.9% | 66 | 81,412 |
| 1993/94 | 1,931,489 | 22.7% | 23 | 83,978 | 3,978,948 | 4.7% | 34 | 117,028 | 5,910,437 | 10.0% | 57 | 103,692 |
| 1994/95 | 1,967,228 | 1.9% | 26 | 75,663 | 4,367,269 | 9.8% | 42 | 103,983 | 6,334,497 | 7.2% | 68 | 93,154 |
| 1995/96 | 2,069,757 | 5.2% | 26 | 79,606 | 4,097,137 | -6.2% | 42 | 97,551 | 6,166,894 | -2.6% | 68 | 90,690 |
| 1996/97 | 2,191,540 | 5.9% | 26 | 84,290 | 4,390,636 | 7.2% | 42 | 104,539 | 6,582,176 | 6.7% | 68 | 96,797 |
| 1997/98 | 2,040,011 | -6.9% | 26 | 78,462 | 4,502,056 | 2.5% | 42 | 107,192 | 6,542,067 | -0.6% | 68 | 96,207 |
| 1998/99 | 2,559,237 | 25.5% | 26 | 98,432 | 5,590,480 | 24.2% | 42 | 133,107 | 8,149,717 | 24.6% | 68 | 119,849 |
| 1999/00 | 2,589,100 | 1.2% | 29 | 89,279 | 5,901,197 | 5.6% | 39 | 151,313 | 8,490,297 | 4.2% | 68 | 124,857 |
| 2000/01 | 2,119,537 | -18.1% | 29 | 73,087 | 5,387,662 | -8.7% | 39 | 138,145 | 7,507,199 | -11.6% | 68 | 110,400 |
| 2001/02 | 2,561,022 | 20.8% | 30 | 85,367 | 6,176,259 | 14.6% | 40 | 154,406 | 8,737,281 | 16.4% | 70 | 124,818 |
| 2002/03 | 2,363,416 | -7.7% | 28 | 84,408 | 5,491,030 | -11.1% | 36 | 152,529 | 7,854,446 | -10.1% | 64 | 122,726 |
| 2003/04 | 2,417,559 | 2.3% | 28 | 86,341 | 6,045,276 | 10.1% | 36 | 167,924 | 8,462,835 | 7.7% | 64 | 132,232 |
| 2004/05 | 2,335,773 | -3.4% | 28 | 83,420 | 4,527,289 | -25.1% | 36 | 125,758 | 6,863,062 | -18.9% | 64 | 107,235 |
| 2005/06 | 2,402,793 | 2.9% | 28 | 85,814 | 5,758,313 | 27.2% | 36 | 159,953 | 8,161,106 | 18.9% | 64 | 127,517 |
| 2006/07 | 2,662,913 | 10.8% | 28 | 95,104 | 5,998,603 | 4.2% | 36 | 166,628 | 8,661,516 | 6.1% | 64 | 135,336 |

*Source: Canada West Ski Areas Association*

The stronger growth rate in B.C. is due to the success of the destination ski areas in B.C., particularly Whistler/Blackcomb and the Okanagan areas, in penetrating the destination skier market. The Alberta growth rate has been slower. Alberta mountain areas have been less successful at penetrating the destination skier market due to a lack of accommodation options and improved product.

The development ban in the National Parks will continue to prevent upgrading of the ski areas and accommodations options. KHMR has the opportunity of offering a fresh new product in the destination market place combined with upscale accommodation that should allow it to capture market share.

It is important to note that following the opening of KHMR the Alberta skiers visits have not decreased and both KHMR and Panorama increased skier visits. The impressive growth of skier visits at KHMR has not been at the expense of its neighbours. This provides further evidence to the fact that the skier market in North America is primarily supply driven, with the newer and better facilities increasing demand rather than taking away market share.

#### 5.4.2.3. Demand for Downhill Skiers at KHMR

KHMR's primary competition will come from the ski areas in the Alberta National Park Region including Lake Louise, Sunshine Village, Mount Norquay, Marmot Basin, Fortress Mountain and Nakiska. Fortress Mountain and Nakiska fall outside the park boundaries but are included in this group due to their location relative to Banff and Calgary. The total market for downhill skiers in this market pool is approximately 1.5 million skier visits. A detailed breakdown of skier visits is presented in Table 5.14. The Alberta region consists of Marmot Basin, Nakiska, Norquay, Fortress, Sunshine and Lake Louise. The B.C. region consists of Kimberley, Fernie and Panorama. Skier visits for Panorama and Sunshine are approximate, as the data was unavailable from the owners.

***TABLE 5.16.: National Parks Region Skier Visits, 1991-1997***

| Year | Alberta | B.C. | Total |
|---|---|---|---|
| 1996/97 | 1,483,907 | 416,010 | 1,899,917 |
| 1995/96 | 1,514,967 | 425,840 | 1,940,807 |
| 1994/95 | 1,390,573 | 404,651 | 1,795,224 |
| 1993/94 | 1,278,601 | 425,050 | 1,703,651 |
| 1992/93 | 1,045,074 | 424,500 | 1,469,574 |
| 1991/92 | 1,284,500 | 415,000 | 1,699,500 |

The 1999 Master Plan reported as follows:

> The total market pool of primary and secondary competitors for KHMR represents approximately 1.9 million skier visits. The growth rate of this market pool was expected to be approximately 3 to 4% over the following ten-year period. Assuming this rate of market growth, there would be an additional **580,000 skier visits** generated over the last ten year period in the market pool.
>
> Assuming KHMR is capable of capturing 20% of this additional demand, this will translate into 116,000 skier visits plus the original 25,000 visits per year at the ski area resulting in 140,000 skier visits.

This was achieved in the first seven years of operation, and is expected to continue to grow.

Due to National Park policies there are limited opportunities at Sunshine Village and

Lake Louise for major expansions to the capacity of the two mountains. In the case of Sunshine Village there are ongoing efforts to resolve the environmental issues that will allow additional access lift capacity to the mountain. In the foreseeable future there will be a limitation to the number of skier visits at Sunshine Village due to the single access gondola system. At Lake Louise there is the possibility of upgrading a portion of the existing lift systems but this will not begin to absorb the additional 580,000 skier visits expected in the market region. In the long term the proposed expansion of KHMR will not only transform KHMR into a true destination but will also provide to logical answer to the National Parks growing needs for expanded facilities.

#### 5.4.2.4. Competitive Advantages and Disadvantages

Advantages:

- Weather - KHMR has more consistent weather compared to Fernie, which often receives rainfall. KHMR has less weather extremes and cold temperatures compared to Lake Louise and Sunshine.
- Snow Conditions - KHMR has superior snow conditions compared to Panorama and Lake Louise; both areas rely heavily on snowmaking.
- Vertical - KHMR has superior vertical compared to Sunshine, Fernie and Kimberley. It has an effective superior vertical compared to Panorama because of terrain, snow conditions and ability to ride up to the top in one comfortable lift ride, giving access to the entire mountain.
- Ski in & Ski out - KHMR offers ski in and ski out access for resort guests that is not available at either Lake Louise or Sunshine Village except for the one hotel at Sunshine.
- Heli-Skiing - KHMR is the only area except for Panorama that will offer exceptional heli-skiing directly from the resort.
- Skier Village - KHMR will offer an upscale skier village not offered at Lake Louise and Sunshine Village.

Disadvantages:

- Distance from Calgary - KHMR is 3/4 hour driving time past Lake Louise putting the area at a competitive disadvantage for the Calgary day skier market.
- Diversity - KHMR does not have yet the number of runs or extensive lift development comparable to Lake Louise.

KHMR will offer a superior ski product and location compared with Fernie, Kimberley, and Panorama. KHMR is at a disadvantage compared to Lake Louise and Sunshine primarily due to the location of the area. In broad terms Golden should be able to match or exceed the performance of Fernie, Kimberley, and Panorama but will likely have less demand than Lake Louise and Sunshine until build out of the expansion plan.

As noted earlier, the growth of the demand for quality ski experiences is evidenced by the fact that since the opening of the resort, not only have skier visits increased from about 20,000 to about 140,000 at KHMR, but skier visits in the National Parks and at Panorama have also been increasing.

#### 5.4.2.4. Skier Data Analysis and Ski Area Trends

Ski area trends in North America over the past few years have seen a gradual leveling off of skier numbers at the national level. A number of reasons have been given for this phenomenon and we do not wish to dwell on the analysis of North American statistics, which encompass a product, locations and trends that are complex and include too many contradictory factors to examine them in detail here.

Skiing and ski resorts are not a homogeneous product, and overall statistical data are not necessarily of great value in order to study a particular area. Suffice it to say that the number of skier visits in the USA oscillate between 55 and 58 million per year and appear to have started to rise again in the last decade.

In Canada, skier visits are in the range of 20 million per year, and appear to have been in a slight decline in the East and growing in the West. The overall Canadian and U.S. ski market consists of approximately 75 million skier visits, of which KHMR would service less than 1% at build out.

Statistical data on the U.S. skier market and on the western Canadian skier market is included below. When looking at the general statistics it is important to note that Colorado in the U.S. and British Columbia in Canada represent the most significant skier markets in each country.

More importantly, British Columbia alone in the entire continent has mountains with elevations and vertical drops that compare with those of the ski areas of the Alps (generally between 1,200 and 3,000 meters) and a latitude that compares favourably with that of the Alps – being only a few degrees of latitude to the North. In its interior B.C. has a climate that compares well with Colorado, sunny and dry, with an abundance of powder snow, as discovered by the heli-ski companies.

In short, what the statistics do not show is that the best region in North America for skiing and sightseeing is in British Columbia.

### *TABLE 5.17.: US Skier Visits*

**Estimated U.S. Ski Industry Skier Visits by Region**
**1978/79 – 2006/07 (in millions)**
***(Extrapolated Data*)***

| *SEASON* | *Northeast* | *Southeast* | *Midwest* | *Rocky Mtn.* | *Pacific West* | *Total* | *Index* |
|---|---|---|---|---|---|---|---|
| | | | | | | | *(1978/79 = 100)* |
| **2006/07** | 11.801 | 4.888 | 7.200 | 20.849 | 10.330 | *55.068* | 110 |
| **2005/06** | 12.505 | 5.839 | 7.787 | 20.717 | 12.049 | *58.897* | 117 |
| **2004/05** | 13.661 | 5.504 | 7.533 | 19.606 | 10.579 | *56.882* | 113 |
| **2003/04** | 12.892 | 5.588 | 7.773 | 18.868 | 11.946 | *57.067* | 114 |
| **2002/03** | 13.991 | 5.833 | 8.129 | 18.728 | 10.913 | *57.594* | 115 |
| **2001/02** | 12.188 | 4.994 | 6.980 | 18.123 | 12.126 | *54.411* | 108 |
| **2000/01** | 13.697 | 5.458 | 7.580 | 19.324 | 11.278 | *57.337* | 114 |
| **1999/00** | 12.025 | 5.191 | 6.422 | 18.109 | 10.451 | *52.198* | 104 |
| **1998/99** | 12.299 | 4.261 | 6.005 | 18.440 | 11.084 | *52.089* | 104 |
| **1997/98** | 12.712 | 4.343 | 6.707 | 19.191 | 11.169 | *54.122* | 108 |
| **1996/97** | 12.407 | 4.231 | 7.137 | 18.904 | 9.841 | *52.520* | 105 |
| **1995/96** | 13.825 | 5.693 | 7.284 | 18.148 | 9.034 | *53.983* | 108 |
| **1994/95** | 11.265 | 4.746 | 6.907 | 18.412 | 11.346 | *52.677* | 105 |
| **1993/94** | 13.718 | 5.808 | 7.364 | 17.503 | 10.244 | *54.637* | 109 |
| **1992/93** | 13.217 | 4.660 | 6.978 | 18.602 | 10.575 | *54.032* | 108 |
| **1991/92** | 12.252 | 4.425 | 6.535 | 17.687 | 9.936 | *50.835* | 101 |
| **1990/91** | 11.157 | 4.257 | 6.486 | 16.706 | 8.115 | *46.722* | 93 |
| **1989/90** | 13.299 | 4.447 | 6.915 | 16.048 | 9.311 | *50.020* | 100 |
| **1988/89** | 12.741 | 5.424 | 7.013 | 16.601 | 11.556 | *53.335* | 106 |
| **1987/88** | 14.421 | 5.885 | 6.783 | 16.564 | 10.255 | *53.908* | 107 |
| **1986/87** | 14.745 | 5.816 | 6.944 | 16.680 | 9.564 | *53.749* | 107 |
| **1985/86** | 12.836 | 5.218 | 7.201 | 16.869 | 9.797 | *51.921* | 103 |
| **1984/85** | 11.083 | 4.394 | 6.899 | 17.626 | 11.352 | *51.354* | 102 |
| **1983/84** | 12.087 | 5.175 | 6.961 | 16.801 | 9.606 | *50.630* | 101 |
| **1982/83** | 9.523 | 4.256 | 6.213 | 14.808 | 12.061 | *46.861* | 93 |
| **1981/82** | 11.467 | 5.064 | 7.846 | 15.337 | 11.004 | *50.718* | 101 |
| **1980/81** | 8.953 | 4.172 | 7.688 | 10.486 | 8.401 | *39.700* | 79 |
| **1979/80** | 8.655 | 4.230 | 8.682 | 17.160 | 9.473 | *48.200* | 96 |
| **1978/79** | 11.294 | 3.763 | 9.743 | 15.837 | 9.560 | *50.197* | 100 |

**Northeast:** CT, MA, ME, NH, NY, VT, RI
**Southeast:** AL, GA, KY, MD, NC, NJ, PA, TN, VA, WV
**Midwest:** IA, IL, IN, MI, MN, MO, ND, NE, OH, SD, WI
**Rocky Mountain:** CO, ID, MT, NM, UT, WY
**Pacific West:** AK, AZ, CA, NV, OR, WA

* *Users of the regional data in this table are cautioned that prior to 1982 no estimate of industry-wide skier visits was made for the "End of Season" studies. Therefore, for 1978/79 to 1980/81 the estimates were derived by applying the NSAA Members' Skier Visit Index. Since 1982, the estimates have been obtained by applying a statistical extrapolation procedure using regional mathematical equations derived from the NSAA survey respondent data. The procedure is reported in "An Estimate of the U.S. Ski Industry Business Volume and Lift Capacity for 1981/82," unpublished NSAA report (November 1982), by Marvin Kottke.*

British Columbia has proven that skiing is a supply driven industry rising faster than any other part of North America in the last 25 years, primarily because of the growth of Whistler Blackcomb as a major winter and year round destination. In B.C., skier visits have risen from approximately 1.5 million in 1978/79 to approximately 5.5 million in 2002/03.

The 2004/05 year was a particularly low year because of the lack of snow at all ski areas (due to the low elevation of most of B.C. ski areas), but 6 million skier visits have already been reached in 2003/04 and appear to be the near target for the B.C. and Yukon region.

The B.C. existing trend shows an impressive rise of almost 400% in approximately 30 years and 200% in the last 20 years. In the USA only the Rocky Mountain region, rising from approximately 15 million skier days to about 20 million skier days, shows a similar steady growth pattern, even if with only of 25% over more than 25 years.

The main reason is that ski areas have been fighting unfavorable locations and climatic conditions; those that have been less affected by bad weather, like Colorado, are hampered by excessive height of the valley bases (which can be a difficulty for many travelers who are acclimatized to coastal ocean-level elevations) and by a limitation in the available vertical drop from the mountaintops.

Whistler and other B.C. ski areas have created a new destination ski market and expanded greatly their skier visits by constantly expanding and adding new features, and by claiming the attention of media and public.

KHMR and its ski area have been designed to meet the best expectations in terms of climate, elevations, vertical drop, quality and quantity of natural snow, and scenery. It should be expected that in a supply driven industry, supplying the best product will easily expand the market, as B.C. has done in the past, without the need to ever take away 1% of the North American market from other ski areas.

It can be argued that in North America there is ample room for growth of the ski industry and of ski areas, provided better ski areas are developed by permitting access to the best locations of this vast continent.

### *TABLE 5.18.: Canada West Skier Visits*

| CANADA WEST SKI AREAS ASSOCIATION SKIER VISITS | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TOTAL** | **1978-79** | **1979-80** | **1980-81** | **1981-82** | **1982-83** | **1983-84** | **1984-85** |
| British Columbia & Yukon | 1542766 | 2026820 | 1652622 | 2471198 | 2346495 | 2562456 | 2778418 |
| Heli Division | | | | | | | |
| Alberta | 1135990 | 1368146 | 1257875 | 1313925 | 1101411 | 1270485 | 1439569 |
| Saskatchewan | 29402 | 40938 | 44721 | 36710 | 48495 | 45262 | 42029 |
| Manitoba | 1103 | 4827 | 2703 | 2046 | 31268 | 4351 | 5102 |
| | | | | | | | |
| **TOTAL** | **1985-86** | **1986-87** | **1987-88** | **1988-89** | **1989-90** | **1990-91** | **1991-92** |
| British Columbia & Yukon | 2431288 | 2641830 | 3297707 | 3591613 | 3311244 | 3482503 | 3551819 |
| Heli Division | 2101 | 2444 | 35638 | 10244 | 42135 | 38508 | 38507 |
| Alberta | 1566037 | 1754774 | 1517373 | 1135131 | 2037578 | 2025983 | 1952336 |
| Saskatchewan | 39668 | 116659 | 131683 | 155086 | 163532 | 171915 | 190174 |
| Manitoba | 6108 | 7600 | 14514 | 56487 | 39800 | 64880 | 79791 |
| | | | | | | | |
| **TOTAL** | **1992-93** | **1993-94** | **1994-95** | **1995-96** | **1996-97** | **1997-98** | **1998-99** |
| British Columbia & Yukon | 3969241 | 4079872 | 4684398 | 4182275 | 4521963 | 4586923 | 5582454 |
| HeliCat Canada | 40481 | 53094 | 70407 | 83270 | 74317 | 80919 | 90231 |
| Alberta | 1731084 | 1964989 | 2115153 | 2220213 | 2219611 | 2066137 | 2607400 |
| Saskatchewan | 158263 | 114696 | 153892 | 155294 | 99885 | 92322 | 127790 |
| Manitoba | 71500 | 57586 | 95108 | 84615 | 47053 | 60010 | 75832 |

| **TOTAL** | **1999-00** | **2000-01** | **2001-02** | **2002-03** | **2003-04** | **2004-05** | **2005-06** |
|---|---|---|---|---|---|---|---|
| British Columbia & Yukon | 5,656,781 | 5,479,253 | 6,252,769 | 5,480,145 | 6,048,105 | 4,527,289 | 5,773,947 |
| HeliCat Canada | 94,505 | 87,678 | 93,108 | 78,377 | 80,285 | 76,863 | 83,787 |
| Alberta | 2,599,660 | 2,143,237 | 2,599,494 | 2,397,456 | 2,473,202 | 2,335,773 | 2,402,793 |
| Saskatchewan | 127,133 | 130,420 | 89,395 | 108,737 | 105,045 | 93,951 | 90,551 |
| Manitoba | 80,333 | 115,266 | 130,722 | 133,166 | 136,072 | 132,184 | 124,638 |
| | | | | | | | |
| **TOTAL** | **2006-07** | **2007-08** | **2008-09** | **2009-10** | **2010-11** | **2011-12** | **2012-13** |
| British Columbia & Yukon | 5,998,603 | | | | | | |
| HeliCat Canada | 86,944 | | | | | | |
| Alberta | 2,662,913 | | | | | | |
| Saskatchewan | 124,620 | | | | | | |
| Manitoba | 115,317 | | | | | | |
| | | | | | | | |
| **TOTAL** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **2017-18** | **2018-19** | **2019-20** |
| British Columbia & Yukon | | | | | | | |
| Heli Division | | | | | | | |
| Alberta | | | | | | | |
| Saskatchewan | | | | | | | |
| Manitoba | | | | | | | |
| | | | | | | | |

## 5.4.3. Real Estate Demand

### 5.4.3.1. Single Family Lots

In the Rocky Mountain Region, the two areas that generate recreational lot sales are located in Canmore and in the Fairmont/Radium/Invermere area. No recreational real estate is available in the National Parks, as owners must be permanent residents.

Purchasers in Canmore consist mainly of international investors, Edmonton residents and persons from other sections of the Prairies, including Saskatchewan and Manitoba. Surprisingly, few people from Calgary are owners of vacation property in the Canmore area, likely due to the close proximity to Calgary. This presents an opportunity for Golden to source the Calgary marketplace to appeal to those persons looking for a true resort getaway. Sales at KHMR will also include a portion of the international market.

### 5.4.3.2. Condominium Units

Some of the most comparable condominium sales are at the Town of Canmore and at the Panorama ski area located outside of Invermere

Condominium Units are often rented in a pool in conjunction with a traditional hotel, which are referred to in this plan as condotel units. In Golden, at KHMR most condotels units will be two bedrooms in size. Townhouse type units with individual exterior access will also be provided at KHMR. Some of them may be available on a nightly basis but this will be subject to future arrangements with owners. KHMR expects to have more than 50% of condominium units in the rental pool.

### 5.4.3.3. Updated Market Report

The feasibility of the expansion project for KHMR is very strong and may be approached from many angles. A market analysis prepared by Live Learn and Play provides additional insight and updated information and is attached as Appendix E.

# 6. ENVIRONMENT

## 6.1. GENERAL

The KHMR expansion plan covers an area that is only slightly larger than the 1999 Master Plan and is entirely included in the buffer zone created for the 1999 Master Plan. The updated Environmental Impact Assessment report prepared by ENKON Environmental Limited is attached as Appendix F to this expansion Master Plan.

### 6.1.1. Sustainable Planning

The 2008 KHMR Master Plan has been conceived as a sustainable plan. This theme was established by senior KHMR staff and the design team at the start of a Master Plan envisioning process in 2007.

This Master Plan is based on the premise of controlling the resort's environmental footprint and designing the growth of the resort around environmentally ethical practices. "Green" thinking will not be an afterthought, but more of a guideline and decision-making tool for Kicking Horse Mountain Resort. Environmental, economic, and social sustainability will be at the forefront and supported from senior management and passed along to seasonal workers.

The planned growth throughout the resort is modeled to keep the development footprint tightly grouped preventing sprawl throughout the adjacent lands. By minimizing the development sprawl KHMR will help ensure that a wildlife corridor along the west bench above Golden remains intact and unaffected by any future developments. Proposed housing developments will be located against the slopes of the resort in many areas previously logged and accessible by forest service roads. The use of previously disturbed sites will again reduce the overall footprint as well as assist in keeping costs down due to current infrastructure.

Development guidelines will be implemented to all potential developers to ensure new construction is geared towards green practices and follows suitable Best Management Practices. KHMR will aim to reduce the overall power consumption by promoting the use of all energy saving appliances and products, as well as the use of propane and geothermal heating. Water conservation will become an integral component to the development of the resort. KHMR will promote the use of the most innovative appliances and techniques to reduce our demand for water. Key improvements will be the use of low flow appliances and water free washroom facilities. During construction developers will be encouraged to use local materials whenever possible through building guidelines. All landscaping throughout the development will also be controlled under building guidelines and will ensure that only local indigenous vegetation be used, with emphasis on xeriscape to reduce the need for water.

Resort golf course development will be based on many of the same premises of the development plan. To lessen the environmental impact the course will be designed amongst the tight groupings of residential development while remaining in close proximity to the mountain slopes to reduce any potential negative effects on the west bench wildlife corridor. All wetlands, marshes, and riparian zones will be mapped and following the most current best management practices will be protected during all phases of construction. To ensure course sustainability, landscaping will be designed using the xeriscape model which reduces the

needs for watering.

On-mountain slope work will be designed to minimize the development impact, protect all riparian areas, and plan for immediate rehabilitation of slopes after works have ceased. To ensure the health of the Cedar Creek watershed downstream from the resort, erosion control and sediment management will be a key component throughout the proposed development.

Reducing the demands of the resort will continue to be a focal point in all aspects of resort expansion. Recycling of goods is mandated throughout the resort with a focus on providing all the tools necessary for both staff and residents to become efficient in recycling. Through "pre-cycling" practices, KHMR will work with suppliers to limit package and shipping requirements to help reduce waste and the impact that unnecessary packaging has on the environment for all goods that are shipped.

The KHMR 2008 Master Plan has been developed with the above goals and objectives in mind. Through proper planning, the Master Plan will ensure environmental, economic, and social sustainability.

A preliminary study of the applicable LEED principles has also been made. However, a LEED point system and certification method for mountain resort projects does not exist yet. Alternative ASHRAE[1] standards will be recommended. The project will benefit from the following "green" concepts:

1. Location: the plan can be seen as a re-use of an area; it is located in a previously logged area, and continues and improves the transitional use from one industry (forestry) to another industry (tourism).
2. Access: KHMR utilizes an existing access and an area previously accessed by numerous forestry roads.
3. Ecological footprint: the footprint is limited by a dense design of the overnight visitors' accommodation, keeping the development area small relative to the number of guests, and the recreational area is designed toward a long term use of natural resources without significant alteration of the ecosystems.
4. Preserving the West Bench: The design keeps the overnight accommodation and the golf course in a small area along the foot of the mountain, keeping most of the West Bench intact as a wildlife corridor.
5. Preserving the natural drainage: wetlands and sensitive areas: streams, wetlands and sensitive areas are being carefully mapped and the design provides the widest recommended setbacks. Archaeological areas of interest have been mapped and excluded from infringements.
6. Local materials: use of local natural materials is emphasized through the mandatory design guidelines.
7. Preservation of natural vegetation: landscaping is controlled through the mandatory design guidelines and only use of local indigenous vegetation will be permitted.
8. Golf course ecology: Xeriscape is used for the golf course development and maintenance.

[1] American Society of Heating, Refrigerating and Air-Conditioning Engineers

The management plan included in the Master Plan will require monitoring the construction, use and maintenance of the golf course avoiding the use of damaging practices and pesticides.

9. Energy conservation: the project will follow Energuide for New Houses (EGNH 77) and the new mandatory B.C. Green Building Code. The requirements of the Energy Efficiency Act of 2006 will apply. KHMR will recommend application of ASHRAE 189, the green building standard that matches the intent of LEED requirements. Energy Star windows and doors and the application of energy saving and durable building practices will be encouraged in every aspect of the project. Cleaner propane heating and geothermal energy use will be encouraged by the developer.
10. Water conservation: will be encouraged, implemented and enforced through voluntary and mandatory measures and latest technology. Water recycling is being planned.
11. Sewage: treatment will be provided on site with advanced technology. Effluent recycling is being planned.
12. Waste: recycling will be made mandatory through development controls.

## 6.2. ENVIRONMENTAL MANAGEMENT PLANS

See Appendix F of this Master Plan for the Environmental Impact Assessment Report (ENKON Environmental) which includes the following environmental management plans:

- Erosion and Sediment Control Plan;
- Construction Waste Management Plan;
- Stormwater Management Plan;
- Vegetation Debris Disposal Plan;
- Wildlife Management Plan;
- Bear Management Plan;
- Air Quality Protection Plan;
- Fertilizer and Pesticide Management Plan, and
- Spill Contingency Plan.

These environmental management plans are included in the following pages:

- Golf Course Management Plan;
- Water Management Plan, and
- Vegetation Management Plan.

## 6.3. GOLF COURSE MANAGEMENT PLAN

A fertilizer and pesticide management plan will be included in the design and maintenance program for the proposed KHMR Golf Course to address concerns about possible leaching and runoff with impacts to water users, fish and wildlife.

### 6.3.1 Fertilizer and Pesticide Management

The following conceptual fertilizer and pesticide management plan will provide an effective set of guidelines to be used for the operation of the golf course. The plan is intended to minimize the potential for runoff or leaching of fertilizers and pesticides to surface drainages, including water features. Field studies (Krause and Niemczyk 1989, Watschke et al. 1989) have demonstrated that both runoff and leaching of pesticides and fertilizers from well-managed turf are negligible. The fertilizer and pesticide management plan includes guidelines for producing a well managed healthy turf. The plan also includes a list of pesticides that will not pose a threat to fish, wildlife or livestock. The fertilizer and pesticide management guidelines are based on review of recent literature and on discussions with British Columbia golf course supervisors and Ministry of Water, Land and Air Protection, Pesticide Management Branch personnel.

The following fertilizer and pesticide management plan is intended to provide guidelines for chemical management rather than rigid protocols. The actual fertilizers and pesticides applied will vary somewhat depending upon soil and turf conditions. To ensure that the guidelines are applied properly, the golf course should employ a fully trained and experienced golf course superintendent, who will be responsible for all aspects of course maintenance, including chemical management.

### 6.3.2. Fertilizer Management

The primary objective of a fertilizer management plan is to ensure that the turf receives the necessary nutrients in the required amounts and at the proper time. This will produce a healthy turf, while reducing the potential for leaching of excess nutrients.

Fertilizer consists of nitrogen (N), phosphorus (P), and potassium (K), and in some cases, trace elements. Due to its solubility in water, nitrogen is the fertilizer component with the greatest potential for runoff or leaching. Phosphorus is immobile in soil and only likely to be lost through erosion, which is unlikely on a golf course. The leaching potential of potassium is somewhat lower than that of nitrogen, and no undesirable impacts to water quality have been associated with potassium leaching from fertilization. Therefore, the fertilizer management plan emphasizes nitrogen management.

The recommended fertilization rates and other management techniques are based on published literature (Petrovic 1989, Zontek 1990, Mugaas et al. 1991) and discussions with local golf course superintendents. These recommendations assume "average" conditions and, in practice, may vary depending upon the results of soil tests, final decisions on course construction, and observations of turf health.

Fertilizer requirements of different areas of the golf course will also vary. Therefore, the management plan is presented by area (greens and tees, fairways, roughs).

#### 6.3.2.1. General Maintenance Practices

Fertilizers should be applied conservatively, using the lowest rate required to produce healthy turf. More frequent applications of smaller amounts of fertilizer (0.25 to 0.5 lb. N per 1000 $ft^2$) should be used in preference to a few, large applications, to reduce the

potential for loss through runoff or leaching. Lower rates may be used on putting greens to achieve better control of growth.

Slow-releasing nitrogen sources, such as sulphur-coated urea (SCU), isobutylidene diurea (IBDU), or other cold water insoluble nitrogen, will be emphasized. A minimum of 50% of any nitrogen application to fairways and 65% of any nitrogen application to greens and tees will be in one of these forms.

Nitrogen should not be applied during hot, dry periods when irrigation requirements are high; nor should it be used in late fall, when, it can promote the growth of turf diseases such as grey snow mold (leading to fungicide applications).

Several other precautions will be taken to ensure that nutrients from fertilizers do not enter water features. Fertilizers should be applied in a manner that maintains a buffer zone around water features. A gravity spreader (rather than a rotary spreader) should be used near ponds to further reduce the possibility of granules entering the water.

The golf course should be irrigated conservatively to reduce the potential for runoff or leaching. This should include heavier, less frequent watering rather than light, frequent applications of water. Light irrigation (0.25 to 0.5 inches of water) should follow applications containing quick-release fertilizers to move the fertilizer off the foliage and into the ground. This irrigation should help to prevent runoff and fertilizer burn.

All bulk fertilizers should be transferred to the application equipment in a dedicated fertilizer storage/preparation facility designed to contain and allow cleanup of any spills. Spilled fertilizers should never be flushed into the storm drainage system.

Fertilizer applications should be based on soil tests. Soil testing should begin during the construction phase. It should be done every one to two years after that, depending upon the type of turf grown. Putting greens may be tested several times per year. Soil testing should be supplemented periodically with plant tissue analysis to identify potential nutrient problems.

#### 6.3.2.2. Application Rates for Greens and Tees

Greens and tees are the most heavily managed areas of a golf course. The player's perception of the golf course is based primarily on the appearance of the greens. They therefore receive the highest rates of fertilizer applications. Tees may be fertilized at a similar rate to greens or at a somewhat lower rate (60% to 70% of the rate for greens), depending upon the maintenance standards and budget determined for the course.

An appropriate fertilization rate (per 1000 $ft^2$) for established bentgrass greens is 0.5 to 0.7 lb. N per growing month (or about 4.5 to 5.0 lb. per growing season), 1 to 2 lb. P per growing season, and 3.5 lb. K or more per growing season. The actual amounts of phosphorus and potassium applied should be based on the results of soil tests. The fertilizer requirements likely should be higher while the turf is becoming established, particularly if USGA specification sand greens are constructed.

Fertilization should begin in spring and continue through the growing season. The first fertilizer application of the year should normally be a complete fertilizer (N-P-K), and may have high nitrogen content (1 lb. N/1000 $ft^2$). Nitrogen should continue to be applied approximately every four weeks at a rate of about 0.5 lb./ 1000 $ft^2$, with some additional, light applications if required to maintain turf quality. There usually are two phosphorus applications annually (spring and fall), but an additional, light application may be made at mid-season (June). Potassium is normally applied three to five times per season, in an N-K or N-P-K mix. One mid-season fertilizer application may include iron or a trace element package (calcium, magnesium, copper, sulphur, zinc, molybdenum, manganese and iron).

#### 6.3.2.3. Application Rates for Fairways

The appropriate fertilization rate for bentgrass/fescue fairways is approximately 3 lb. N, 1.0 to 2.0 lb. P, and 2.0 to 3.0 lb. K per 1000 $ft^2$ per season. The fertilizer should be delivered in four or five applications. Two to three of these applications should contain phosphorus.

#### 6.3.2.4. Application Rates for Roughs

Fertilizer may be applied to limited areas of manicured rough, which is mowed during the growing season. The rough should be fertilized at a rate equivalent to 1.0 to 2.0 lb. N, and about 1.0 lb. each of P and K per 1000 $ft^2$ per season. The fertilizer should be applied in three to four applications.

### 6.3.3. Pesticide Management

#### 6.3.3.1. Integrated Pest Management

The primary focus of the pesticide management plan should be to minimize pesticide use by employing an integrated pest management (IPM) program. Major components of an IPM program include:

4) Establishing tolerance levels for pests (disease, weeds, insects), monitoring the pests, and treating only when the pre-determined tolerance level is exceeded;

5) Using effective alternatives to pesticides when they are available;

6) When pesticides are required, using the "least toxic" alternative (a pesticide characterized by low water solubility, low leachability, and low acute toxicity to fish and wildlife); and

7) Using pesticides at the minimum effective application rate.

For golf courses, an essential component of IPM is an emphasis on maintaining healthy turf, which minimizes the need for chemical control of weeds, insects, and diseases. Measures to maintain a healthy turf include:

1) Constructing greens and tees to provide a base that will not compact;

2) Reducing stress to turf by constructing greens and tees of sufficient size to handle the expected traffic and providing cart paths and requiring their use;

3) Providing adequate surface and subsurface drainage;

4) Managing snow to minimize accumulations and accelerate melting: Spreading dark organic material will accelerate snow melt; snow blowing equipment and snow fences can be used to distribute snow evenly;

5) Selecting, where available, turf species and cultivars that are resistant to the locally endemic diseases such as grey snow mold, Fusarium, and take-all patch: a blend of different cultivars or species having resistance to different diseases can provide superior overall performance;

6) Using high quality seed stock that includes an analysis of the types and numbers of weed seeds contained in the product;

7) Providing adequate irrigation;

8) Watering early in the morning rather than in the evening to reduce the potential for promoting diseases;

9) Fertilizing, aerating, and overseeing adequately to develop a dense, healthy turf; and

10) Paying particular attention to fall cultivation: aerating, top dressing with compost, and avoiding fertilization in late fall when active growth may lead to damage from cold and/or disease.

#### 6.3.3.2. Pesticide Selection

The fungicides are the class of pesticides most frequently applied on local golf courses. They are applied most commonly to control grey snow mould, although Fusarium and take-all patch sometimes are problems during the summer. In addition, damping-off fungus is a potential problem on new turf.

All registered pesticides are considered environmentally safe if applied in accordance with approved manufacture's instructions. However, chemicals with $LC_{50}$<1.0 mg/L are considered highly toxic to fish and generally will be used with caution at the KHMR golf course. The more toxic fungicides would only be used in special cases, if other chemicals proved ineffective. For example, benomyl might be required to treat damping-off fungus on new greens.

Herbicides registered for use on golf courses and used locally to control broadleaf weeds include dicamba, 2,4-D (amine), and mecoprop, which are often used in combination. Roundup (glyphosate) can be used for total vegetation control on areas such as cart paths. None of the herbicides listed is highly toxic to fish. The most toxic herbicide, Roundup, is virtually immobile once it comes in contact with soil and is highly unlikely to enter local streams. Therefore, any of these herbicides may be used on the KHMR Golf Course.

Turf insects are generally not a problem locally, but it will be necessary to control mosquitoes and possibly blackflies in the golf course ponds. It may be possible to co-ordinate treatment for mosquito larvae with the regional district's mosquito control

program. This program entails treatment with the biological agent Bacillus thuringiensis Berliner var. israeliensis, which also is effective for blackfly larvae. Adult populations of mosquitoes and blackflies should be monitored closely. Treatment for adults (with malathion) should be implemented only if and when populations exceed a predetermined threshhold level. To maximize the threshhold, golfers should be encouraged to use personal methods against mosquitoes (e.g. long sleeved shirts and pants and repellents).

Biological controls should be implemented as they become available. Current research involves biological controls for several turf diseases. Such products should be tested at the KHMR golf course when and if they become available locally. They should be used regularly, if they prove effective and are safe.

#### 6.3.3.3. Pesticide Application

The golf course supervisor and/or other maintenance personnel should hold a British Columbia Pesticide Applicator's Certificate. A certified Pesticide Applicator should be responsible for any pesticide use on the golf course. Any other persons preparing or applying pesticides should be provided with adequate instruction.

The golf course superintendent or greens keeper should determine when a disease or weed problem requires chemical treatment. Fungicide treatments should normally be limited to the greens and tees. Fairways should only be treated in unusual circumstances involving severe disease, and roughs will not be treated at all. The greens keepers normally should avoid the use of herbicides on greens and tees, where the turf typically is shallow-rooted and could be damaged by these chemicals.

All pesticides should be applied only for their registered purpose and in accordance with approved manufacturer's instructions. To ensure against the possible entry of pesticides into streams, applicators should adhere to the Pesticide Management Guideline that a 10-m pesticide free zone be maintained around any golf course water features that discharge to natural watercourses. Any vegetated buffers around water features should also remain pesticide free. In addition, wherever practical, heavily managed areas (greens and tees) should be set back at least 10-m from golf course water features. Pesticides should not be applied on any portions of greens or tees that may be less than 10-m from the water features.

All pesticides should be prepared in a dedicated area designed to contain spills. Equipment used to apply pesticides should also be cleaned in the dedicated area.

Cleaning should be done in a manner that will protect water quality. Rinsate should never be poured down sink drains or into the storm sewer system. If practical, it should be reapplied to an appropriate area of turf or saved and used as make-up water for a future batch of the same pesticide. If these recycling measures prove impractical, the rinsate should be disposed in a manner approved by the British Columbia Ministry of Environment.

#### 6.3.3.4. Chemical Storage Facility

Fertilizers and pesticides should be stored and prepared for use in a manner that will prevent their accidental release to the environment. The storage facility should be located at least 100-m away from all streams. It should have an impermeable floor and otherwise be constructed such that any potential chemical spills can be contained within the storage area for clean up. Enough cleanup material should be kept on hand to deal with a spill of twice the volume of the largest container in the building. If floor drains are provided, they should empty to holding tanks rather than to the storm sewer.

The pesticide storage and preparation areas should be in a separate room isolated from the fertilizer area and from any other facilities, particularly employee lunchrooms. Any floor drain in the pesticide storage area should lead to a holding tank that is separate from the tank draining the fertilizer storage area. This arrangement should avoid cross contamination and allow recovery and reuse of spilled pesticide or fertilizer.

The pesticide storage area should incorporate a number of safety features. It should be adequately ventilated (the atmosphere will be turned over at least six times per hour). The facility should meet the local fire code and be supplied with a separate fire alarm and fire extinguisher. A separate area should be dedicated to storage for protective equipment and notebooks containing Material Safety Data Sheets for all hazardous materials used on site.

The pesticide storage area should meet the requirements outlined in the B.C. *Pesticide Control Act*. It should remain locked at all times when it is unattended. The outside door should carry a sign which states, "WARNING - CHEMICAL STORAGE - AUTHORIZED PERSONS ONLY". Only the golf course supervisor or other authorized persons should be allowed to enter the pesticide storage area. The local fire department should be notified of the presence of pesticides on the premises.

The above noted measures, which are intended to become part of the development mandatory strategies, will effectively eliminate the well known concerns raised by earlier golf course developments, and achieve similar environmental results to a complete pesticide ban without the disadvantages of a draconian program, which may not be implemented by an operator.

## 6.4. WATER MANAGEMENT PLAN

### 6.4.1. Water Conservation Measures

Current practice is to design projects that consume a fraction of the amount of water of urbanized areas. Water conservation principles will be incorporated as part of the sustainable design concepts into the KHMR development.

While there are many areas in North America that adopted water conservation strategies, the scope of these strategies varies widely. In most of those areas, these strategies are applied to

existing built-up areas through gradual replacement of plumbing fixtures and change in personal use habits. Consequently, there are no published water use rates reflecting water conservation measures that could be readily applied to a new development such as KHMR, although examples such as Sun Peaks Resort provide a useful guideline.

The water conservation strategy for KHMR should consider the following range of conservation measures at the levels of planning, design, construction, operation and maintenance by the water utility company, as well as public awareness and education:

- Universal water metering;
- Water accounting and loss control;
- Incentive producing water costing and pricing practices;
- Non-combustible building construction where possible;
- Sprinkler systems in all buildings;
- Impounding of runoff and snow melt water;
- Landscape efficiency;
- Water system pressure management;
- Water saving plumbing fixtures;
- Water saving domestic/ commercial appliances and building envelope equipment, and
- Water conservation awareness program.

The above water conservation measures can be further described as follows:

#### 6.4.1.1. Universal Water Metering

It has been shown in many studies that metered water systems typically save substantial amounts of water compared to unmetered water systems. Universal water metering includes both source water metering and service connection metering. Source water metering is essential for water accounting purposes by the water utility. Service connection metering is needed to more accurately track water use and bill customers for their usage. It also informs the customers how much water they are using. All water provided free of charge for public use should also be metered in order to accurately account for water. Source meters and service connection meters should be read at the same relative time in order to facilitate accurate comparisons and analysis. Meters should be tested for accuracy on a regular basis. It is also important that the meters are properly sized to prevent under or over-registering. These practices will allow for effective leak detection and repairs as part of the normal operation and maintenance program.

#### 6.4.1.2. Water Accounting and Loss Control

A water accounting system will help track water throughout the system and identify areas that may need attention, particularly large volumes of non-account water. Non-account water includes unmetered water as well as water that is metered but not billed. Non-account water should be analyzed to identify recoverable losses and leaks in the system. The water utility company should institute a comprehensive leak detection and repair strategy. This strategy should include regular on-site testing with

leak detection equipment. A loss prevention program including pipe inspection, cleaning, lining and other maintenance efforts should compliment the loss control program.

#### 6.4.1.3. Incentive Water Costing and Pricing

The value of costing and pricing as a conservation strategy is in involving the water customers in understanding the true value of water, and conveying information about that value through prices. A water utility will need to be created and operate the water system under the Certificate of Convenience and Public Necessity (CNCP). The water utility will use cost-of-service accounting, consistent with generally accepted practices established by the CNCP. The customer's bill should correspond to their water usage. Any changes in the water tariff by the water utility will require an application to and approval from the water comptroller's office. The water tariff rate should be structured to promote conservation.

#### 6.4.1.4. Non-Combustible Building Construction Where Possible

The Master Plan gives serious consideration to fire suppression systems in building structures. All major buildings and buildings over four storeys in height will be non-combustible and have sprinklers. All combustible buildings will have sprinklers. At KHMR it will be recommended that single family chalets and bed and breakfast buildings also have sprinklers, as the cost of providing sprinkling for small building structures is no longer prohibitive.

#### 6.4.1.5. Impounding Runoff and Snow Melt Water

Consideration will be given to strategic placement of water impoundment storage areas throughout the development. Runoff and snow melt intercepting ditches or swales should be located and graded such as to channel the surface water into the impoundments. These impoundments would have a function of storing water for fire fighting purposes.

#### 6.4.1.6. Landscape Efficiency

Outdoor water usage drives maximum-day demand. The maximum-day demand, in turn, drives the demand for larger water supply and storage, transmission and treatment facilities. Outdoor usage is often the greatest source of water demand in a resort development; therefore, reducing the outdoor usage can be a very effective water conservation strategy. The land use vision for the KHMR's base core area, with the commercial and higher density residential component of development, will include minimizing hard surfaces and landscaping with low water use indigenous vegetation as much as possible. The single family chalets and bed and breakfast areas of development will be landscaped to blend with the natural forest setting with mandatory restoration of indigenous plants and avoiding a city-type grass lawn and flower bed landscaping as outlined in the Design Guidelines.

#### 6.4.1.7. Water System Pressure Management

Reducing water pressure in the distribution system can save a significant quantity of water. It can decrease leakage, amount of flow through the open fixtures, as well as stresses on pipes and joints, which may result in leaks. System-wide pressure management during the design stage should ensure that pressures in the system exceeding 45 – 50 psi are eliminated through a proper placement of pressure-reducing valve stations in the system. The reductions in pressure should obviously not compromise the integrity of the water system or quality of service for customers. Pressure-reducing valves or regulators in the buildings should fine-tune the best pressure range in individual buildings.

#### 6.4.1.8. Water Saving Plumbing Fixtures

The importance of water conservation through the installation of water conserving plumbing fixtures is generally recognized by the public. In British Columbia, it is now identified in a separate building regulation, pursuant to the *Local Government Act*, entitled “Water Conservation Plumbing Regulation”. At the present time, the regulation addresses the demand side of water efficiency measures only through the inclusion of water efficient devices and fixtures by specifying maximum flow rates and flush cycles. Sanitary piping systems within the buildings that control the use of other water-efficient measures (i.e., graywater re-use) are not yet included in the regulation.

The design and construction of commercial and residential components of the resort, from single-family homes to hotels, should feature the following water-saving plumbing fixtures:

- High efficiency lavatory and kitchen faucets. These devices use 1.9 to 8.3 l/min compared with standard faucets using 11 to 19 l/min.
- High efficiency showerheads. These devices use 3.8 to 9.5 l/min compared with standard showerheads using 11 to 19 l/min.
- Low consumption direct type or flush type toilets. These devices do not use more than 6 l/flush compared to the watersaver water closets, which use 13.35 l/flush.
- Low consumption direct type or flush type urinals. These devices do not use more than 5.7 l/flush. The water supply to urinal flush tanks equipped for automatic flushing should be controlled with a timing device in order to limit operation during normal working hours.
- Low flow aerators should be used on faucets where applicable/possible.

#### 6.4.1.9. Water Saving Domestic/Commercial Appliances and Building Envelope Equipment

Consideration and encouragement should be given to the use of water-saving appliances, equipment and measures including the following:

- Front loading, horizontal axis, clothes washing machines. Such machines typically use 30 percent less water and 40 – 50 percent less energy than the top loading machines.

- High water (and energy) efficient automatic dishwashers. This refers to both domestic and commercial dishwashers.
- Air conditioning units and cooling equipment. Water used in cooling equipment, such as air compressors, should be minimized in accordance with the manufacturer's recommendations. (Air conditioning is not planned except possibly fro the two hotels.)
- Hot water instant demand system. Some of these systems typically utilize electronically controlled pump/ recirculating loop and gas heat.
- Installation of water heaters as close to the point of use as possible and well insulated hot water piping.
- User of water softeners should be restricted due to the frequent refresh cycling and high water consumption.

#### 6.4.1.10. Water Re-Use and Recycling

Water re-use, also synonymously known as reclamation or recycling, is re-using treated wastewater for beneficial purposes such as agricultural, golf course and landscape irrigation; cooling and industrial processes; groundwater recharge, toilet flushing, wetlands and recreational water impoundments; etc. Commonly, the source of recycled water is municipal wastewater. Recycled water requires adequate treatment (settling, filtering, disinfection, etc.) before it can be used again. It is expected that an expanded and improved treatment plant will produce treated water that may be utilized for snowmaking and golf course irrigation.

#### 6.4.1.11. Water Conservation Awareness Program

Public information and education are critical to the success of any conservation program. It is recommended that KHMR adopt a water conservation awareness program strategy early in the resort's development stage. Direct savings can be made when customers improve their water use habits. Education alone may not produce the same amount of sustained water savings as other more direct approaches but it can greatly enhance the effectiveness of other conservation measures. Customers that are informed and involved in a conservation policy are more likely to support the water utility company's conservation planning goals. An information and education program should explain all of the costs involved in supplying potable water to KHMR and demonstrate how water conservation practices will provide water users with long-term savings. Covenants with mandatory rules and requirements on the property titles and appropriate user charges will support the information process and ensure that conservation programs will be followed.

## 6.5. VEGETATION MANAGEMENT PLAN

### 6.5.1. Introduction

The following plan outlines the guiding principles, proposed mitigation measures and best management practices to reduce potential impacts to vegetation resources in the proposed

development area and includes the following recommendations:

- Revegetation of areas as soon as possible following the end of construction in order to limit the area of exposed soil;
- Salvage of all merchantable tree volumes;
- Use of seed mixtures that will not increase the frequency or distribution of any weed species or introduction of non-native species;
- Use of seed mixtures that will include species that are adapted to the climate and soil conditions of the region and will be obtained from local native sources wherever possible;
- Measures to address both the short term and long term impacts and how the ski runs will be managed; and
- Measures to preserve the maximum biodiversity within the project boundaries (e.g. allow forests to mature and wind firmness of trees at the edge of ski runs).

### 6.5.2. Tree Protection Plan

All trees that are to be retained will be protected from mechanical damage to the trunk and root system. This protection can be achieved through:

- Marking trees or flagging areas that are to be protected during the construction phase of the project;
- Installing 'Tree Protection' signs;
- Taking all measures necessary to prevent the activities such as storage of materials or equipment, stockpiling of soil or excavated materials, burning, excavation or trenching or cutting of roots or branches within the tree protection areas;
- Restricting vehicle traffic to designated access routes and travel lanes to avoid soil compaction and vegetation disturbances; and,
- Avoiding alterations to existing hydrological patterns to minimize impact on vegetation.

Clearing (of ski runs, in particular) will be done in a manner to minimize the potential for windthrow and other damage to newly exposed inner forest areas. The following practices will be implemented

- Trees will be cut to achieve a "soft edge," keeping smaller trees near the edge and progressing toward larger trees in the middle. Unit edges will be feathercut to reduce the strong contrast between the ski trails and undisturbed areas.
- When cutting, the integrity of naturally occurring tree clumps will be maintained.

### 6.5.3. Sensitive Ecosystem Protection Plan

All Sensitive Ecosystems (i.e. riparian zones) will be protected from mechanical damage during construction. This protection can be achieved through:

- Limit clearing to the minimum area required for construction boundaries Snow fence areas that are to be protected during the construction phase of the project;
- Install 'Sensitive Ecosystem Protection' signs;
- Remove the minimum amount of vegetation possible from environmentally sensitive areas or areas where rare or endangered plants or plant communities are identified by the environmental monitor; and

- Take all measures necessary to prevent the activities such as storage of materials or equipment, stockpiling of soil or excavated materials, burning, excavation or trenching or cutting of roots or branches within the sensitive ecosystem protection areas.

Due to the close proximity of the development to sensitive ecosystems the following guidelines as outlined in the SEI Conservation Manual (McPhee et al., 2000) should be followed after the completion of construction, where possible:

- Where residential or other developments are adjacent to sensitive ecosystems establish conservation covenants;
- Restrict recreational access;
- Control the introduction or spread of invasive species;
- Prevent wildlife disturbance (especially nesting or breeding areas);
- Locate developments away from sensitive core areas;
- Establish a buffer zone between the core sensitive areas and the development area; and
- Maintain hydrologic regime.

### 6.5.4. Revegetation Plan

#### 6.5.4.1. Ski Runs

The revegetation plan for the new ski runs will follow *Ski Area BMPs* (Sibbernsen *et al*. 2001), which contains the following recommendations:

- Finish the project during one summer construction season and reclaim the area permanently before winder snows cover the ground.
- Have a contingency plan for erosion control if there is any possibility that finishing the run could be delayed by an early snowfall.
- Strip and stockpile as much topsoil as possible for later reapplication. Limit topsoil losses to either two inches (5 cm) or half the thickness of the original topsoil, whichever is less.
- Protect reapplied topsoil layers from erosion using caterpillar track surface roughening, cross slope waterbars and surface mulch blankets.
- Apply seed in late autumn to take advantage of snowmelt and rainfall the following spring.
- Test soil to determine fertilizer requirements and, if necessary, apply fertilizer with the seeds.
- To establish successful vegetation at a density of 40 plants per square foot, apply seeds at a rate of at least 100 per square foot.
- For improved seed germination, consider using a snow cat to track in and cover the seed with soil.
- Monitor seedling establishment to fine tune seed mixes and determine if supplemental seeding is needed.
- Enhance seedling establishment and growth with supplemental fertilizer application during the spring following initial seeding.
- Cover freshly seeded areas with mulch to create a cool, moist environment for fragile seedling survival.

- Restrict vehicle access to reclaimed areas so that multiple trails do not form. Delay entering previously disturbed areas with new construction until vegetation has completely recovered.

The success of revegetation will be monitored, and reseeding will occur, if necessary. Monitoring will consist of the following:

- revegetation success;
- sheet and rill erosion, gullies, slumping and subsidence;
- soundness and effectiveness of erosion control measures;
- noxious and undesirable weed invasion;
- degree of herbivory by rodents on seeds and seedlings; and
- evidence of excessive wildlife grazing.

Monitoring will include the establishment of a reference transect to establish baseline conditions. The reference transects will be used to compare the revegetation success against the following performance standards:

- Percent cover: The reclaimed area contains 75% of the total vegetal cover measured for the reference transect.
- Dominant species: 90% of the revegetation consists of species contained in the applied seed mix and/or that occur in the reference transect.
- Seedling density: The density and abundance of seedlings is at least 10 to 12 seedlings per metre.
- Erosion condition: The erosion condition of the reclaimed area is equal to or in better than that measured for the reference transect.

#### 6.5.4.2. Development Areas

Following construction, residential and commercial development areas should be revegetated using a mix of indigenous tree, shrub and groundcover species. Trees should be planted at an average density of one plant per 4 $m^2$ and shrubs should be planted at a density of approximately one plant per 1 $m^2$. Berry producing species are not recommended for development areas as they may attract bears. Bioswales should be replanted using a mix of sedges and rushes. Stormwater ponds should be planted with a mix of emergent and submergent native plants.

#### 6.5.4.3. Roadways and Transmission Line

Following the completion of new roadways, adjacent slopes should be reseeded with a mix of indigenous grass seed. A specialized mix designed for linear developments should be used which contains numerous species tolerant of varied elevation and soil nutrient and moisture regimes.

Reseeding of disturbed areas can be accomplished in two ways. On steep slopes hydroseeding is recommended. On gentle slopes and flat areas seed can be hand-broadcasted. To further protect seeded areas and stabilize exposed soil areas the application of mulch is recommended. Loose mulch can be applied on gentle slopes and flat areas, and cocoa-mats should be used on steep cut-slopes (greater than 2:1) immediately uphill of streams.

### 6.5.5. Trail Management Plan

Trail routes should be selected to maximize hiking over bare ground or plant species that are most resilient to disturbance. Trails shall be constructed through habitat/vegetation types in the following order of preference (from most desirable to least desirable route) (Butler *et al*. 2003):

- Rocky Ground
- Bare Ground
- Graminoids (grasses, sedges & rushes)
- Herbs & Forbs (Plants with buds below the soil surface)
- Geophytes, i.e. yellow glacier-lily & queen's cup
- Plants with buds at the soil surface
- Hemicryophtes, i.e. alpine pusseytoes & scarlet paintbrush
- Woody or Herbaceous Plants with buds above ground
- Chamaephytes, i.e. kinnikinick, pink mountain heather
- Woody Plants with buds a great distance above the ground
- Phanerophytes, i.e. dwarf blueberry, mountain huckleberry

Trails shall avoid areas with permanently or frequently saturated soils, where the potential for erosion and damage to vegetation is highest.

The following management plan for hiking trails will be implemented:

- Trails will be clearly marked, including fencing in particularly sensitive areas, to deter off-trail use
- Signs will be posted to inform trail users of the sensitive nature of alpine ecosystems and potential for damage from off-trail activities.
- Picking wildflowers will be prohibited.
- Any interpretative staff guiding visitors on trails will inform hikers of the potential damaged caused by off trail activities and picking wildflowers.
- Visitor information centre staff members will hand out information on trail etiquette and the protection of alpine and other sensitive ecosystems. Trained staff will be available to answer visitor questions.
- Resort staff will regularly patrol the trail to look for signs of vegetation damage (trampling, corner-cutting, unauthorized new trails). Portions of the trail may be closed temporarily if the damage appears to be significant. In cases of severe damage, reseeding with an appropriate seed mixture may be necessary.
- Trail use may be restricted based on seasonal conditions. For example north facing slopes and other areas of late-lying snow should be avoided early in the season, or until these surfaces are less water saturated.
- If there is an ongoing issue with damage to sensitive plant communities, access to some backcountry areas may be restricted using a permit system.
- Resort staff will be required to set an appropriate example for guests by adhering to the trail use rules.

# 7. ARCHAEOLOGY, TRADITIONAL USE AND FIRST NATIONS ISSUES

## 7.1. ARCHAEOLOGICAL OVERVIEW ASSESSMENT

In September 1998, an Archaeological Overview Assessment was conducted by archaeologist Wayne Choquette. No archaeological materials from pre-European contact days were observed in the KHMR project area. This is due to the site's steep forested slope, high altitude and limited solar exposure. No cultural materials were found in the existing transmission line right of way, but if that right of way was widened, an archaeological impact assessment should be conducted to examine certain low ridges overlooking marsh areas. Similarly, there is a small peat deposit above and to the west of the existing ski hill that should not be destroyed without prior archaeological evaluation.

The proposed expansion plan in entirely contained in the study area.

The Archaeological Overview report is attached as Appendix C to this Master Plan.

## 7.2. TRADITIONAL USE STUDY AND FIRST NATIONS ISSUES

In September, 1998, the Ktunaxa Kinbasket Tribal Council Administration (KKTC) was hired to undertake a six week Traditional Use Study of the project area and its surroundings. That study has been provided and is attached to the Ski Area Master Plan in Appendix C. Both that study and the review of the draft Master Plan by the KKTC indicated that there were no major concerns with the proposed resort development. In a letter dated October 27, 1998, the KKTC indicated that neither the Archaeological Assessment or the Traditional Use Study encountered any significant issues or sites of cultural concern to the Ktunaxa or Kinbasket peoples. The KKTC also advised of the Province's need to negotiate general treaty matters with the KKTC, particularly in light of the Supreme Court of Canada decision in the Delgamuukw case. Since then there has been progress and new direction with more recent court decisions. The Ktunaxa Nation Tribal Council has been pursuing higher level negotiations that involve the First Nations and the Federal and Provincial governments, and the Kinbasket Shuswap have chosen to join the Shuswap Tribal Council and to pursue negotiations independently.

The project is entirely contained in the area of the traditional use study and is on provincial Crown land.. Consultations with the First Nations on the use of the land continue to be the prerogative of the Province and KHMR will maintain discussions at the business level to further the interests of the First Nations. Appropriate meetings to review the proposed expansion and the interest of the First Nations are expected following the preparation of the preliminary concepts contained in this draft Master Plan.

# 8. RESORT ADMINISTRATION, GOVERNANCE AND PROVISION OF PUBLIC SERVICES

## 8.1. GENERAL

This section reviews the options for delivery of services related to utilities, infrastructure, development control, emergency services, and regulatory controls. The infrastructure and related services themselves are described individually in Section 3.6 of this document. This section deals with the jurisdictional structure related to those services and provides information on emergency services.

KHMR presented an unusual challenge with respect to governance, because there are very few existing services in place – indeed fewer than most other locations in the province. However, this gave KHMR the opportunity to provide a coordinated and simplified approach to resort administration as an interim measure.

In the case of utilities, KHMR created a utility that would provide and administer those services until a later transition to an appropriate jurisdiction. In the case of development controls, KHMR implemented controls through statutory covenants and statutory building schemes that reflect the principles in the approved Master Plan. Emergency services are provided initially by utilizing existing available resources, which will be formalized or replaced over time. Similarly, the regulatory controls and standards provided through existing legislation and common law provide the initial regulatory foundation for the resort. The resort has been designated as a Mountain Resort Area and it would be expected that the above relevant functions and services will, in time, be transferred to a local government structure focused on the resort such as a Mountain Resort Municipality.

## 8.2. RELATION TO GOLDEN, THE CSRD AND THE PROVINCE

Both the CSRD and the Town of Golden have interests in providing services to the resort. The CSRD has not exercised its powers with respect to zoning or building permit processes and does not have an official community plan for the area of the proposed resort. It does provide some nearby regional services such as solid waste disposal. The Town of Golden does not provide direct services to the resort, but it is home to many of the commercial, health care and support services that are utilized by resort visitors and employees, and it has also provided much of the enthusiasm for the resort. It is therefore, the objective of KHMR to work cooperatively with both the CSRD and Golden as well as with the Province as it considers options for services delivery to the Resort. The Master Development Agreement between the Province and the resort operator, KHMR L.P., is the main controlling document outlining the future of the area and the Province is the party in charge, both as land owner and as government.

## 8.3. OPTIONS FOR LOCAL SERVICES DELIVERY

Because authority for local matters falls under the constitutional powers of the Province, “local government” is merely a delegation by the Province of select powers to local and regional bodies administering public services, utilities, infrastructure, and a variety of regulatory matters. Since confederation, there have been many solutions to the provisions of local public services, whether organized under a particular public statute or whether provided privately or through a charitable

organization.

There has never been a single umbrella statute addressing all aspects of local services. Some of the existing public statutes dealing with local services are the *Local Services Act*, the *Water Act*, the *Utilities Act*, the *Fire Services Act*, the *Local Government Act*, the *Land Title Act*, the *Industrial Development Act*, and the *Mountain Resort Associations Act*, just to name a few, being updated from time to time, such as the Local Government Act and the Community Services Statutes Amendment Act. Private statutes have also been used regularly and continuously over the years such as the Vancouver Charter, the *Resort Municipality of Whistler Act*, and the *Shaughnessy Heights Building Restriction Act*, to address unique circumstances.

While no option should be abandoned, it is expected that over time a combination of private development controls and services administered by a local Mountain Resort Improvement District would be a viable legal option until there is sufficient population to merit a different form of governance, such as a Mountain Resort Municipality.

The *Mountain Resort Associations Act* came into force in 1995. In the scope of the original legislation, there was provision for the establishment of 1) Mountain Resort Areas, 2) Mountain Resort Improvement Districts, 3) Mountain Resort Associations, 4) Mountain Resort Business Improvement Areas, and 5) Mountain Resort Municipalities. The Act was revised a number of times and finally the provisions of the Community Services Amendment Act came into effect in 2007, giving the Minister of Community Services the power to create the necessary local governance structure for mountain resorts by means of special letters patent. It is not necessary that a change to the interim situation be considered at this time, as the future governance may be more appropriately determined once the project has achieved build out and the developer may transfer the full administration and related services to the appropriate structure at that time.

In the interim KHMR is creating a Mountain Resort Association, and may create a Mountain Resort Business Improvement Area, which are intended to create an organization that will have the power to promote and market all or part of a mountain resort. Funding is raised through an annual assessment within the resort area or smaller business improvement area. The powers of a Mountain Resort Association include the power to facilitate the operation of the Mountain Resort Area in accordance with its bylaws.

## 8.4. STRUCTURING AND ADMINISTERING SERVICES

In the absence of existing services, whether related to utilities, infrastructure, development control, localized emergency services or regulatory controls, it is necessary to draw from the available options and implement immediate effective measures to fill the gap. None of these services are expected to be provided by the Town of Golden, except where arranged by contract.

### 8.4.1. Public Utility Companies

While utilities are often administered by “local government” or improvement districts, the operation of a public utility company is the option that has been pursued by KHMR as an interim or even long term measure. Water, telephone, cable, propane gas, electricity and other services are to be provided by the utility company as the need arises and the economic well-being and the enjoyment of the resort require it. There is ample precedent for public utility companies which are a welcome opportunity for local involvement in generating local jobs.

Public utility companies in general are not prime areas of investment for profit but neither are they money losers. For example, the Comptroller of Water Rights approved "the rate of return on operating equity and the operating margin" for the Sun Peaks Utility Co. Ltd. for 1998 at 11.25%, and it has been determined that is feasible and possible to operate a public utility company and facilitate both quality services and investment in the resort areas in this manner.

### 8.4.2. Administration of Water and Sewer Infrastructure

The water supply service to the resort is currently operated as a private utility. For that reason, KHMR obtained a Certificate of Public Necessity and Convenience from the Comptroller under the *Water Act*, which is necessary when a water supply serves more than five people.

The sanitary sewer systems for the collection, treatment and disposal of liquid waste is another service that would normally be provided through the administration of a public jurisdiction, but in the interim, the sewer system and the treatment plant are operated by KHMR. The sewage disposal and treatment system must comply with the requisite Provincial standards and require Provincial permits.

### 8.4.3. Managing Development Control

For the purposes of this report, development control includes the application of a broad range of zoning principles, servicing requirements, review and approval of applicable design guidelines and administration of a scheme of building code compliance.

Current development control at the local level is limited to the CSRD's subdivision Servicing Bylaw 592 which deals with water supply standards and to compliance with the requirement of park dedications according to Section 942 of the *Local Government Act*. There are no zoning or building permit requirements, and the approved Master Plan and B.C. Building Code are the applicable regulatory documents. The Master Plan option for the application of zoning principles includes the filing of land use covenants on each title in the resort area, under Section 219 of the *Land Title Act*. Another tool that KHMR uses to ensure compliance with building restrictions is the registration on title of a statutory building scheme under Section 220 of the *Land Title Act*.

A summary of the proposed charges on title is included in Section 8.5. A zoning bylaw reflecting the approved Master Plan and the creation of a development permit area administered by a Mountain Resort Municipality would be the most likely long term solution to development control. The option of seeking powers by private statute is not proposed here but it should not be ruled out if it becomes more expedient at the time. In the past, private building restriction statutes have been enacted to reinforce zoning principles where other controls were not effective (one example is the *Shaughnessy Heights Building Restriction Act*, 1922).

Building code compliance is usually enforced by "local government." While the B.C. Building Code is applicable throughout the Province, enforcement mechanisms are not in place in all regions. As code compliance is mandatory, it should not be necessary to provide building inspection services, especially where professional compliance certification is available and mandatory. The covenants placed on title in the resort area require building drawings to be

submitted to KHMR together with letters of assurance by design professionals. The design professionals provide proof of professional liability insurance and certify that the proposed buildings and other structures comply with all applicable code requirements and Master Plan provisions.

KHMR plans to establish a Design Review and Approval Authority (DRAA) to receive plans together with building code letters of assurance and to weigh the plans against the zoning principles of the Master Plan and other criteria set out in the covenants. It is intended that the DRAA will be comprised of a B.C. Registered Architect named by KHMR, who initially will be the project designer; by a professional engineer, or other technical person who will be part of the construction and development management group named by KHMR; and a representative from Golden and area who could be named following consultation with the CSRD, the Golden Town Council and local special interest groups. The alternative model to a DRAA is to name the design firm of architects for the resort to review design proposals for compliance. This would include a mechanism for an alternative design review if necessary over time. It was noted that in order for KHMR to effectively regulate development standards, it must enter the statutory covenants as a grantee, and to do this, the Minister would have to grant KHMR the required powers under Section 219 (3)(c) of the *Land Title Act* (Similarly, to be granted statutory rights-of-way for utilities, KHMR would have to acquire the authority under Section 218 (1)(d) of the *Land Title Act*).

Over the long term it is possible that a system of building permits may be established by a jurisdiction such as a Mountain Resort Municipality. However, KHMR noted that there are other building review models in the province, including the system administered by the former U.B.C. Real Estate Corporation (later known as U.B.C. Properties Inc.). That company is a wholly owned subsidiary of the University of British Columbia which undertook development on university lands as authorized by an Order in Council under the *University Act* for the creation of the Hampton Court community project. The corporation created its own zoning and through contractual means, required the development to comply with specific design guidelines and in accordance with building authorizations administered by a design review and approval authority (DRAA) composed of a panel of design professionals. Because KHMR is not within a municipality, and because this part of the Regional District has no building permit system or zoning regulation in the resort area, the existence of contractual options is indeed relevant, whether achieved by contract or by a grant of special powers to acknowledge the special situation. The development control system for the interim is by way of charge on title.

#### 8.4.3.1. Summary of existing and future development controls

The original structure of the governance model envisioned for KHMR in the 1999 Master Plan and 2000 Master Development Agreement was developed by Pheidias as a special structure for this project on the model of the UBC Realty Corporation for the Hampton Place community development as noted above, and following the procedures derived from the Certified Professional Program of the City of Vancouver for registered professionals' review and certification of compliance with the building code.

In conclusion, the current control system for KHMR is as follows:

1. The approved Master Plan, including the Design Guidelines (which have been expanded in this Master Plan), is the guiding document of the planned

development of the ski resort, in accordance with the Master Development Agreement granted by the Province. This document provides planning guidance to the development in a manner that is similar to a municipal Official Community Plan and zoning by-law, but provides greater preliminary design information in order to achieve a cohesive resort ambience for a smaller and transient tourist community.

2. The developer, KHMR, is required to follow the Master Plan by the agreement signed with the Province; if the developer is in default the Province has the right and the ability to take back the ski area and the resort project, and it may offer it for a price to another developer. The approved Master Plan is the guiding document for both developer and Province.

3. The Master Plan locates and defines all permitted uses, it also provides a preliminary volumetric definition of all buildings and the preliminary approximate location of all roads, trails and services, which are to be developed according to BC municipal engineering standards and to meet the approval of the BC Ministry of Transportation.

4. KHMR and its specialist consultants must complete detailed design, following the Master Plan, and must satisfy all conditions precedent for subdivision approval according to existing legislation and regulations before applying for land grants. Minimum engineering standards are defined in the design guidelines to be those that are equivalent to municipal regulations prevalent in the Province, and professional engineering certification is required. KHMR and its engineers are responsible for municipal work.

5. Once land grants are made, covenants are registered on all titles to make mandatory compliance with the Master Plan and all its requirements.

6. The covenants also require that the owner of each parcel, in accordance with the Master Plan and provincial legislation, follow a Certified Professional Program employing registered BC professionals to ensure compliance with the BC Building Code and certify each building project.

7. The registered professionals of each owner must certify at the preliminary design stage that their design complies with the Master Plan and the Design Guidelines. The Design Review and Approval Authority (DRAA) of KHMR reviews the submission and once compliance is verified confirms to the owner that the design professionals may proceed to detailed design.

8. On completion of detailed design the design professionals submit the signed and sealed drawings, together with the Letters of Assurance specified in the BC Building Code to the DRAA of KHMR. KHMR does not review the submissions regarding compliance with the BC Building Code, which is the responsibility of the registered professionals, but only compliance with the Master Plan and its guidelines, so that liabilities are clearly defined. The registered professionals are required to provide proof of insurance.

9. When buildings are completed the registered professionals are required to provide occupancy certification and to submit the final Letters of Assurance, as specified in the B.C. Building Code, to the DRAA of KHMR.

The above system has been substantially in place since year 2000 and is being perfected with this expanded and improved document and renewed administrative

efforts by KHMR..

### 8.4.4. Emergency Services Generally

In the Golden area, fire police and ambulance services are handled separately. Fire protection services are provided by a fire protection district serving only Golden, while police and ambulance services are part of a broader service area. An emergency program service is provided throughout Electoral Area A (including the resort area) by the CSRD who contracts with the Town of Golden to provide services.

Other emergency services such as search-and-rescue and emergency response programs are co-ordinated by the municipal emergency co-ordinator or through the RCMP who in turn call upon trained volunteers.

In relation to emergency services, KHMR has arranged for its ski hill operations to employ a certified professional ski patrol with basic paramedic training to provide for stabilisation and transfer of injured skiers to facilities in Golden. The ski patrol provides search-and-rescue operations within the Controlled Recreation Area and will call in regional search-and-rescue volunteers on an as-needed basis and in accordance with industry standards.

### 8.4.5. Fire Protection Services

Please see Section 3.6.11.8. of this Master Plan.

### 8.4.6. Police Services

The RCMP have a detachment based in Golden, which serves a broad area that includes KHMR. Services to KHMR are operated from Golden and include the usual traffic patrol and investigation services as well as operating a crime prevention and ski watch program. There is not expected to be an immediate need for an increase in detachment size as a result of the development of KHMR, because ski areas do not generate a great deal of crime. Search-and-rescue operations are dispatched by the RCMP utilizing the volunteers under the Provincial Emergency Preparedness Program. The RCMP works along with search-and-rescue teams on an as-needed basis. A security office has been proposed for the base area at KHMR which will serve as a dispatch centre for necessary security services, including RCMP.

### 8.4.7. Medical and Ambulance Services

Golden and District General Hospital provides acute care, extended care and continuing care facilities. The hospital now serves the KHMR area and is capable of providing services to KHMR. As population and the tax base grow in the future, so too will the Province have to expand the hospital facilities.

Paramedical services are provided at the ski area in conjunction with the certified professional ski patrol services. Injuries are dealt with at the resort to stabilize victims. The ambulance facility in the resort area will be located near the base area of the Resort. Patients will be transferred to KHMR as necessary.

Ambulance service is currently available to the KHMR area through the District Ambulance Service, which provides coverage to a broad area with 3 ambulances. This independent service is based in Golden. On-site ambulance service will be provided according to industry standards when skier volumes reach a certain level and could be provided as an improvement district service.

## 8.5. DEVELOPMENT CONTROL COVENANTS AND RELATED MATTERS

There is more than one way to achieve the administrative objectives and to create a regulatory framework to apply to the resort area.

It is not necessarily in vogue to enact private statutes or to incorporate private company towns or enact umbrella development legislation that prevails over "local government" controls, although these approaches have been used in the past. While those models are still within the legislative capacity of the Province of B.C., KHMR's preferred first step in local government was to establish rules by the simpler technique of charge on title, requiring only the Ministerial grant of authority under the *Land Title Act*.

To achieve the desirable development controls during the first stage, rules and regulations have been registered on title to each parcel of land created during the subdivision or lease process. The Province is the Transferee of the key conditions of land use with respect to bed unit count and overall site use, and KHMR is the Transferee of the more detailed interim and permanent covenants as well as the author of the statutory building scheme. Together, these documents provide the details equivalent to land use and local regulations.

The covenants may be divided up into issues for ease of enforcement. Those likely to be replaced in time by local government regulation may be separated from those that would remain on title in the long term. What follows is a list of some of the basic documents needed to administer the development aspects within the resort, before there is a "local government" or other statutory body exercising jurisdiction over those matters.

***EXHIBIT 8.1.: Design Guidelines***

*Design Guidelines provide both an aesthetic framework for the resort buildings as well as functional guidelines such as snow management that are important considerations for buildings located in a ski resort.*

### 8.5.1. Site Layout and Design Guidelines

General site layout and more specific design guidelines are contained in a covenant in favour of KHMR. This will be permanent. The guidelines will be essentially as in the Master Plan with some refinement to clarify concepts of design for easier application and interpretation by the Design Review and Approval Authority (DRAA). This covenant would require review and approval by the DRAA of a proposal as to its compliance with the guidelines. Presentation requirements would be set out, with a simpler format being required for single-family dwellings than for other buildings.

### 8.5.2. Bed Unit and Parcel Use

By way of covenant, in favour of the Province, bed unit and parcel use are controlled and limit

land use on each parcel to a particular building use or uses (including permissive uses such as a health spa, tennis courts, and convention facilities in addition to any mandatory or primary uses). Bed Units are limited to the maximum number for each parcel as generated by the corresponding ski lifts and related development. This covenant would be changed if there were a future change or minor modification in the Master Plan with respect to a particular parcel.

### 8.5.3. Detailed Siting, Construction and Use

This is a covenant in favour of KHMR containing siting and density conditions for each lot, together with servicing requirements beyond those in the CSRD subdivision servicing bylaw. This will include, for example, set backs, maximum tree clearance and maximum floor areas for each building type.

Compliance with the Master Plan objectives, such as garbage control, sewer hook up, water hook up and energy efficiency in building design, will also be the subject of this covenant. The submission requirements for a review by the DRAA will include drawings showing management of sunlight, emergency vehicle access, grading requirements, a description of functional building operations and project volumetric compliance.

The garbage requirement will be to deposit garbage at least every four days at the waste transfer station and to forbear at all times from keeping any garbage stored outside, but rather within the main building or a fully enclosed predator proof outbuilding. The compliance with the energy efficient design standards could also be included, such as adherence to the B.C. Hydro Power Smart Guidelines and the referenced CBIP Commercial Power Conservation Guidelines (for 25% less power consumption than the Model National Energy Code for Buildings). This whole covenant will simply remain on title in whole or in part until KHMR was satisfied that it could release the covenant after the creation of suitable replacement regulations by a level of "local government."

Further provisions will be to the effect that, once initially subdivided, no parcel could be re-subdivided to yield any increase in the number of lots except for the creation of strata lots, (excluding bare land strata lots).

Each building type will have the following zoning restrictions by way of land use covenant: a maximum floor area (not an F.S.R.) front, side and rear setbacks, height limits, minimum on-site parking requirements, (either covered or non covered as the case may be). This covenant, where in favour of KHMR, will refer to the DRAA for development approval.

The anticipated setbacks, heights and other regulations or each building type permitted in the Master Plan will adhere to BC Reg 513/2004[1] and will be as per the Design Guidelines attached to this document. (See Appendix B).

Parking requirements will be set out as per the Appendix to the Design Guidelines on a per parcel basis to comply with the overall parking plan for the skiing and the resort base as outlined in the Master Plan. The parking space standards will be in accordance with the

[1] http://www.qp.gov.bc.ca/statreg/reg/T/Transportation513_2004/513_2004.htm (see Part 3, Sections 11-13).

I.C.B.C. parking recommendations, which could be relaxed by the DRAA, for freehold parcels in the case of either hardship or reasonable engineering considerations.

There will be no building permit system in place as there is none presently in this area. However, this covenant will require letters of assurance from a registered B.C. Architect and/or Engineer, as required by building type in accordance with professional association regulations, giving witness to compliance with the B.C. Building Code and related code requirements, first upon submitting an application for development approval and again, by way of confirmation upon building completion prior to occupancy.

For leased areas, an appropriate version of the above covenant would be in favour of the Province, assuming that there will be a title for these areas registered under the *Land Title Act*. This covenant will provide for details of the requisite ski area base where not specifically provided in the Lease document itself. For example there could be a requirement for the components of an operational ski facility including a ticket booth, rest rooms, a ski rental area, ski school, skiers' lockers, a personnel canteen and brown bag lunch room, a cafeteria, kitchen, store rooms, gift shop, radio and dispatch office for the ski patrol, security, search and rescue and the RCMP, and a location for first aid services, etc.

### 8.5.4. Environmental Covenant

An environmental covenant will be prepared in favour of the Province for prohibition of tree clearance and minimum building setbacks adjacent to a water course. Similarly, the environmental covenant with respect to the golf course development will also address pesticide use and fertilizer use. If necessary, other relevant environmental issues that are canvassed in the Master Plan could be included in this environmental covenant, where the land is registered under the *Land Title Act*. Alternatively, these covenants in favour of the Province may be included in the Master Development Agreement.

### 8.5.5. Rental Pool Covenant

A rental pool covenant, providing that a residential unit will be managed and marketed as tourist accommodation, will be put on title for a targeted 75% of the condotel units in any one portion of the development, including clauses that provide for redecoration at the discretion of KHMR or its assigned rental pool management company from time to time and financed through the rental pool scheme from revenues. This is to ensure the product is current and the units have similar standards of furniture and finishes, especially with the passage of time. The overall target is for a minimum of 50% of bed units in the completed project to be included in the rental pool.

### 8.5.6. Statutory Building Scheme

A Statutory Building Scheme will be registered by KHMR against all single family chalets with detailed design guidelines and related restrictions. The instruments will provide for an enforcement mechanism by all property owners and therefore extend enforcement beyond KHMR. Local government seldom has the power to enforce such guidelines on single family development unless achieved through voluntary covenant, as statutory development permit areas are generally limited to multiple unit developments or heritage areas. In this respect

KHMR has a better opportunity of enforcing and achieving successful conceptual and aesthetic design controls.

### 8.5.7. Timing of the Documentation

The proposed covenants must be consistent with the approved uses of the land parcels as foreseen when the land is actually subdivided. Some minor modifications will likely be required to provide for the specific details of a particular grant or subdivision. Covenants will likely be filed concurrently with the deposit of each final subdivision plans in the Land Title Office. Other similar documents to be filed with the subdivision plan include statutory rights of way and easements.

## 8.6. OTHER REGULATORY CONTROLS

Governance by covenant on title should be limited to land use and related issues in order to be in strict compliance with the terms of Section 219 of the *Land Title Act*. The equivalent of regulatory bylaws, such as noise, dog control, business licensing, traffic regulation, etc. may be included as covenants on title. Regulatory bylaws may also be instituted by the CSRD, via the local Electoral Area Director and the Board of the Regional District if they choose to legislate in these areas. However, noise, foul odours and other issues, such as troublesome dogs may be actionable as nuisances by individual land owners at common law if they should become a problem. In addition, KHMR may exercise its powers granted by the Province for the administration of the Controlled Recreation Area to control any nuisance problems that originate from areas other than fee simple land. For instance, the *Livestock Protection Act* provides a scheme to deal with uncontrolled dogs where there is no adequate local regulation. Traffic issues on dedicated roads will be subject to the *Transportation Act* and *Motor Vehicle Act* until there is supplementary local legislation. Traffic and other regulatory rules on private property will be subject to owner control such as through bylaws of a strata corporation.

# 9. CONCLUSION: CHALLENGES AND OPPORTUNITIES FOR SKI RESORT GROWTH, FOR GOLDEN AND BRITISH COLUMBIA

## 9.1. GENERAL CONCLUSION

The plan for developing a four season, destination resort – KHMR – still faces several challenges and needs the continued support of the community, government and investors. Yet the plan for this unique Resort also presents exceptional opportunities both for Golden, the Regional District and for the Province of B.C.

Why expand KHMR? There are many reasons, both in the public interest and in the best interest of the ski area and of the resort itself for its long term well being:

1. Canadian tourism trends are not positive. Canada is decreasing its tourism market share and its tourism deficit is increasing as well. In order to salvage and even grow market share, is important to generate new and improved tourism products that can compete successfully with improved U.S.A. resorts and at a global level;
2. Canadians are flocking to foreign resorts and are contributing to a growing tourism deficit, in addition to a weak growth of foreign visitations to Canadian resorts. It is necessary to attract Canadian tourists and skiers back to local destinations;
3. For B.C., the greatest opportunity to expand the tourism market share is through ski resorts. Latitude, climate and elevations make the southern interior of B.C., and particularly the Purcells, the best place in North America for ski resorts;
4. Statistical information of the last 25 years demonstrates that B.C. is in a good position to expand its skier market with destination skiers even if the American skier market is not increasing;
5. Offering quality new accommodation and higher level ski experiences will be part of the necessary strategy;
6. Despite the need for snowmaking at lower elevations, KHMR can assure white Christmases to its visitors. It can also offer extended ski seasons through its high alpine areas;
7. KHMR is the highest “front country” ski area in B.C. both at the accommodation base (1,275m) and at the top (2,450m) – and will remain so even after the possible opening of the proposed boutique “backcountry” ski area, Jumbo Glacier Resort near Panorama;
8. If climate change results in future higher average temperatures in B.C., KHMR is the only “front country” ski area in B.C. that may survive the attendant challenges with relative ease due to its higher elevation and drier climate, which would minimize precipitation in the form of rain;
9. Golden is situated in the Kootenay region of southeastern British Columbia and within the spectacular region known as Kicking Horse Country. Additionally, Golden is near six of the most stunning National Parks Canada has to offer (Banff, Glacier, Jasper, Kootenay, Mount Revelstoke and Yoho). In the past year, Golden created a tourism association entitled Tourism Golden. Tourism Golden is expected to enhance tourism for the town as

well as Kicking Horse Mountain Resort;

10. KHMR is in an ideal location, along the Trans Canada Highway, near two regional airports and the Calgary International Airport, to attract visitors for longer stays;
11. The expansion is along the lines of the original plan and would not significantly alter the footprint and the environmental impact of the project. Technological progress combined with upscale development and less frequent travel to and from the resort with a larger resident bed base will allow to minimize the impacts and make KHMR a sustainable destination ski area for the long term;
12. The resort will transform itself from a primarily commuting ski population to a primarily resident ski population, and
13. Creating a more mature resort in the “front country” of B.C. is in the public interest.

## 9.2. THE CHALLENGES

KHMR has operated successfully for several years due to the exceptional energy and vision of Ballast Nedam, the key investor, and many Golden residents. However, it has become apparent that without an expansion with a golf course for year round operations, an expanded uphill lift capacity for skiers and a greater critical mass in the base area that will make KHMR more competitive, larger infusion of funds for capital improvements and marketing will be more difficult to obtain. The Master Plan expansion has been developed to respond to the growing needs of a competitive marketplace, the needs of long term opportunities for new investment, and the need of attracting destination tourists willing to stay overnight.

### 9.2.1. A Public-Private Partnership

While the Master Plan is submitted by the private sector, KHMR clearly understands that resort development is the result of public policies that reflect the priority of the public sector and that it is the synergy between the two, the private and the public sector, that is the formula for success. Plans for key elements such as marketing Golden as a tourist destination and operating a Golden Visitor’s Centre depend on this synergy, and the residents of Golden and area must embrace the project since resorts may fail unless they are supported by local citizens, organisations and businesses.

### 9.2.2. Economic Diversification

KHMR and its development are the beginning of a new future for the region, a future that embraces destination tourism as an important and growing economic sector, and one worthy of support.

### 9.2.3. Tourism Products

Canada and B.C. are important markets for the international tourist, but, ironically, Canada

faces a $6.7 billion[1] and growing deficit in tourism. Tourism leaders and governments have now realized that a key reason is that the country – and especially B.C. – has not been developing significant new products, and until they are developed, the market share will continue to decline. The KHMR concept as described in the Master Plan is a response to this imperative.

### 9.2.4. The Window of Opportunity

While there are few new destination resorts in B.C., the challenge of development stems in large measure from the need for public processes to work effectively. The success of KHMR was predicated upon the timely completion of the Master Plan approval and the conclusion of a reasonable Master Development Agreement. This cooperation allowed KHMR to take advantage of the window of opportunity presented avoiding the ever present danger that investment capital may move elsewhere. This is very important because investment confidence may be weakened by the uncertainties of business cycles and by delays and uncertainties in the performance of review processes. The opportunity now exists to open the door to the creation of a destination resort at KHMR and to complete the dream.

## 9.3. THE OPPORTUNITIES

If these challenges can be met, KHMR can become a first class, four season, destination resort that will put Golden on the international tourism map and add to B.C.'s attractiveness as a location for visitors in the right climatic zone. The realization of the Resort can be a catalyst, both in terms of the initial investments by Ballast Nedam, but also by attracting additional investor capital and by generating returns to residents of the region in terms of wages, salaries, and returns on investment.

Key benefits to the community include:

- Creation of a major employment base, reducing unemployment;
- Improvement of an existing recreation amenity and the creation of several new supportive recreation facilities;
- Upgrading the image of Golden to outsiders into an attractive place to live, work and recreate;
- Stimulating existing small businesses in Golden and creating new businesses to support the economic activity created by the Resort;
- Demonstrating the progressive attitude of the community that will attract additional economic activities and industries to the community;
- Increasing the volume of business to existing tourism-based businesses in Golden and the surrounding District;
- Making KHMR and Golden more competitive relative to new regional developments such as those in Revelstoke, and
- Making KHMR an international destination.

[1] *Canadian Tourism Performance 2006*; Canadian Tourism Commission; http://www.corporate.canada.travel/en/ca/research_statistics/index.html accessed July 24, 2008.

## 9.4. KHMR: BECOMING "THE ULTIMATE DESTINATION"

The opportunity to rejuvenate and expand the Whitetooth Ski Area was an exciting one that was first identified by Pheidias Project Management and Ballast Nedam representatives in late 1996. Since that time, the potential of the area has been analyzed in considerable detail and the result is this unique plan. Key factors in this Master Plan that will allow KHMR to become the ultimate destination in the Canadian Rockies region include:

- The potential to re-launch the existing ski resort and to allow the ski area facilities to expand considerably;
- An eighteen hole signature golf course that will be further expanding the summer attraction of the resort, and create greater confidence in the summer season for the resort;
- An on-going working relationship with three important local organizations: the Golden Nordic Ski Club Society, the Golden Golf and Country Club, and Purcell Helicopter Skiing Ltd.;
- The unique expertise of a strong group of consultants and experts and the development expertise and construction experience provided by a major international company. This company – Ballast Nedam – has proven itself in Canada in the Confederation Bridge project, the most challenging public private partnership project in the country in recent decades, and
- Substantial further investment for the regional economy and significant long term job creation opportunities. It is also an important step in the diversification of the local and regional economy.

The success of this expansion plan is ultimately subject to the receipt of the requisite government approvals, together with affirmation of feasibility in accordance with normal practices used within the industry.

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