



**Land and Water
British Columbia Inc.**

A corporation of the government of British Columbia

Mount Mackenzie Resort
Master Plan 2004

Master Plan approved December 7, 2004:

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**MT. MACKENZIE
PROJECT**

**Mountain Master Plan
and
Resort Competitive Analysis**

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EXECUTIVE SUMMARY

A. INTRODUCTION

1. Background

Mt. Mackenzie has been a popular destination of alpine skiing enthusiasts for several decades. Its abundant snow pack, consistent slopes, and alpine bowls create an ideal setting for top quality skiing that is exemplary of the interior of British Columbia and the Selkirk Mountains. Currently, the slopes of Mt. Mackenzie are accessed for skiing via ski lifts (Powder Springs Ski Area), snowcats (CAT Powder Skiing), and helicopters (Selkirk-Tangiers Helicopter Skiing).

Shortly following the introduction of snowcat skiing on Mt. Mackenzie in the early 1980's the Provincial government and private developers started looking into the development of Mt. Mackenzie with a ski lift network and resort facilities. The 1984 Mount Mackenzie Ski Area Master Plan uncovered the potential to develop 1,885 vertical metres (6,185 vertical feet) of skiing on Mt. Mackenzie, which would be the greatest in North America. The 1991 Mount Mackenzie Mountain Development Concept indicated that Mt. Mackenzie has the potential to accommodate in excess of 20,000 skiers per day.

In March 2000 RRL submitted the Mount Mackenzie Resort Expansion – Final Concept Report to satisfy the “Vision” request from the City of Revelstoke, and to initiate the master planning process in accordance with the BC Assets and Lands (BCAL) authority through the Commercial Alpine Skiing Policy Guidelines to Ski Area Development in British Columbia. BCAL accepted the Final Concept Report submitted by RRL and entered into an Interim Agreement with RRL, which sets the terms of reference for the preparation of a Master Plan for the Mt. Mackenzie project.

This document, the Mt. Mackenzie Mountain Master Plan, describes the proposal for development of lifts, ski runs, on-mountain buildings, and related support facilities on Mt. Mackenzie. This document also identifies areas to the north of the original CRA, which the proponent would like to have set aside by Crown Lands for future ski resort development following build-out of the proposed project. The full build-out of the Mt. Mackenzie resort would occur over a minimum of 20 to 30 years, based on market demand.

As proposed, the Mt. Mackenzie mountain recreation area will consist of 2,600 hectares of Crown Land within a 5,100-hectare study area. The mountain development will offer recreational activities during all seasons, including approximately 110 ski/snowboard trails (with a total area of 665 hectares), 25 lifts, a network of multi-use trails, and 4 on-mountain guest service facilities. The top of the highest proposed lift will be at 2,325 metres elevation (7,625 feet). The vertical drop of the mountain recreation area will be 1,845 metres (6,050 feet). According to industry standards, this terrain has been estimated to support a Comfortable Carrying Capacity (CCC) of 17,050 skiers/riders at one time.

The master planning of Mt. Mackenzie has identified potential additional ski terrain on the northern flanks of Mt. Mackenzie, extending down to the Illecillewaet River. This area offers a northern exposure, which is desirable for skiing, and creates the potential to develop a resort portal directly adjacent to the Trans-Canada Highway. Although the development of this northern terrain is beyond the scope and timeframe of this master plan it should be considered as potential future ski development and the terrain has been included as such in the project study area boundary.

2. Goals and Objectives

The primary goal of this project is to create a successful, year-round destination recreational resort community on Mt. Mackenzie. Mt. Mackenzie meets the criteria for a Destination Resort as defined in the CASP Guidelines because of its great vertical drop, high daily capacity, high-quality lift network, extensive skiable terrain, year-round recreational opportunities, and large bed base with slope side accommodations.

The primary objective of the project is to enhance the role of Mt. Mackenzie and the City of Revelstoke as an attractive destination area in order to compete more effectively within the regional and destination markets and provide further year-round economic stability for the community.

In response to the desires of certain current and past City Council members under mayor Jeff Battersby, a second key objective in developing the Master Plan for Mt. Mackenzie is to balance the mountain facilities with base area accommodations such that the ***bed unit count of the resort will always be less than the total number of bed units in the City of Revelstoke.***

In accordance with its agreement with the City of Revelstoke, as well as in response to concerns voiced during the project public meetings, the proponent is committed to ensuring that *permanent residents of the City of Revelstoke and Electoral Area B of the Columbia Shuswap Regional district have affordable access to the ski facilities on Mt. Mackenzie.*

B. MOUNTAIN DEVELOPMENT ANALYSIS

1. Introduction

The objective of the Mountain Development Analysis is to identify the full potential of the study area to support ski resort development, and to make sure that the optimal mix of skiing terrain is established and that sufficient land is set aside for the necessary support facilities.

2. Site Inventory

The mountain development will encompass approximately 2,600 hectares (6,400 acres) of Crown Land within the Mt. Mackenzie project study area of 5,100 hectares (12,600 acres). The highest point of the study area, the summit of Mt. Mackenzie, is 2,455 metres (8,055 feet).

The proposed Mt. Mackenzie CRA is surrounded by land uses that are complementary to the proposed ski resort development (generally, Crown lands that are used for cat- and heli-skiing).

Specific natural resources which must be protected or avoided while designing the mountain facilities include identified geologic hazards and stream corridors/riparian reserves, as well as mature tree stands which may support goshawks. According to representatives from the Ministry of Forests (MOF), no specific planning guidelines are necessary to account for the grizzly bear or mountain goats, due to the size of surrounding habitat areas and the resident population.

Land and Water BC will designate the approved project area as a Controlled Recreation Area. A Controlled Recreation Area designation provides for alpine skiing development. Therefore, the proposed development is consistent with current land management and development regulations.

The elevation analysis illustrates a vertical drop of over 1,900 metres (6,200 feet) and topographic relief which is favorable for the development of alpine skiing terrain.

The study area includes a variety of slope gradients that are suitable for beginner through advanced and expert ability levels. Careful placement of lifts and trails across the mountain should enable a distribution of ability levels which matches the ability profile of Mt. Mackenzie's local, regional, and destination markets.

Fall-line represents the path an object would take as it descends a slope under the sole influence of gravity. Mt. Mackenzie's geomorphology creates consistent and lengthy fall-lines throughout the study area.

As depicted in the slope aspect analysis, the majority of the study area's terrain faces west and southwest – often times the least desirable aspect for snow quality and retention. However, Mt. Mackenzie's latitude and weather systems create frequent cold temperatures, which make for good-quality snow conditions over a large majority of the mountain.

The climatic conditions at Mt. Mackenzie are excellent for resort development. Historical records show that the natural snow pack on the upper elevations of Mt. Mackenzie is abundant for support of alpine skiing. Only the bottom 300 metres (17 percent) of the resort will require machine-made snow to augment the natural snow cover.

C. MOUNTAIN MASTER PLAN

1. Summary of Mountain Facilities

Of the 5,100-hectare (12,600-acre) Mt. Mackenzie study area, approximately 2,600 hectares (6,400 acres) are required for establishment of the proposed ski area. Total skiable area is estimated to be between 1,500 and 2,000 hectares. The remaining Mt. Mackenzie study area will be used for real estate development, other resort recreational amenities (e.g., trail networks, Nordic skiing, backcountry hiking/skiing, etc.), and the northern sector will be preserved for future ski development.

In accordance with CASP guidelines, the ski lifts have been aligned to serve the available ski terrain in the most efficient manner possible, and the proposed lift alignments have been oriented to take maximum advantage of the terrain while creating a complete area interconnection. Proposed lifts include one 2-stage, enclosed gondola, one cabriolet gondola, eight detachable chairlifts, three fixed grip quad chairlifts, six fixed grip triple chairlifts, and one surface lift. The

proposed lift system will provide a total vertical drop of approximately 1,846 metres (6,056 feet) and will support a comfortable carrying capacity of 17,050 skiers.

The preliminary design for the developed ski trail network adheres to CASP Guidelines and offers a variety of terrain that closely matches the market distribution of destination visitors to Western Canada. The 110 developed ski trails proposed in this master plan account for a total of 665 hectares (1,643 acres). General slope characteristics and the central location (near the Mid-mountain Day Lodge and Upper Village) of the terrain served by lifts 6 and 22 is ideal for development of snowboard and terrain parks. The upper-elevation bowls and off-piste terrain at Mt. Mackenzie will also be attractive to snowboard riders and free riders. The trail design for Mt. Mackenzie has a terrain capacity of 6,706 skiers, on the slopes, at one time.

CCC defines daily resort capacity. CCC is the optimum number of guests accommodated by a mountain resort, at any one time, which affords a high-quality recreational experience and helps ensure sound stewardship of the land. The proposed mountain master plan could support a potential CCC of about 17,050 guests. Of the total 17,050 CCC, 6,834 skiers (40 percent) are anticipated to be on the ski trails at one time (SAOT). The proposed trail network has an estimated skier *capacity* of 6,706 skiers at one time. This illustrates a near-perfect balance between trail capacity and SAOT.

In addition to alpine skiing, the CRA will be used for Nordic skiing and snowshoeing in the winter, and lift rides, hiking, interpretive trails, site-seeing, mountain biking, horseback riding, dining, festivals and events, etc. in the summer. Trail networks will be staged from the Mid-mountain Day Lodge at the top of the gondola (Lift 2/5). In addition, more challenging routes are provided up and down the mountain, taking advantage of the existing mountain work roads and the snowcat road network. The on-mountain routes are connected to a multi-use trail, which accesses the village and all residential areas.

In addition to the guests using ski area facilities at Mt. Mackenzie, there will be a number of guests visiting the resort that do not use the ski area facilities. At Mt. Mackenzie it is assumed that these guests not using the mountain facilities equate to an additional 25 percent of the CCC, based on CASP Guidelines for Regional/Destination and Destination areas. Accordingly, the overall Resort Carrying Capacity is 21,300 (125 percent of CCC).

Parking for the ski area will be provided for two types of users: overnight guests who are staying at the resort, and day-use guests. Overnight guests will be provided parking adjacent to their accommodation either in structured (most commonly underground) or surface parking. Day-use guests at the mountain will be provided surface parking at the Lower Village and the South base area. The resort is anticipating the need to accommodate approximately 4,500 skiers in day-use parking lots.

Guest service facilities are sized as a function of the full build-out CCC. The resort will have approximately 23,000 to 28,750 square metres of space for skier services (1.3 – 1.63 metres per guest), which meets CASP Guidelines.

Ski-related guest services will be provided in three locations at or near the base of the mountain. The Lower Village commercial core will include between 8,700 and 11,000 sq. m. of skier services space, and 800 restaurant seats will be available for skiers. Skier services at the Upper Village will be provided in a 4,200 to 5,300 sq. m. day lodge. A total of 1,233 restaurant seats will be located at the Upper Village, in the day lodge as well as in the resort hotel. A small staging area, providing tickets, rentals, rest rooms, and day skier parking, will be located at the South base area, adjacent to the lower terminal of Lift 4.

There will also be three on-mountain lodges, the Mid-mountain Day Lodge, the Mountain Top restaurant and the Montana Creek restaurant. The Mid-mountain Day Lodge will include 1,762 restaurant seats, rest rooms, retail, and a ski school registration desk, and will be between 4,200 and 5,300 sq. m. The Mountain Top restaurant will include 954 restaurant seats, rest rooms, and retail, and will be between 2,400 and 3,000 sq. m. The Montana Creek restaurant will include a 968-seat restaurant, rest rooms, retail, and a ski school registration desk, and will be between 2,200 and 2,700 sq. m.

Mt. Mackenzie will have four on-mountain ski patrol facilities. The ski patrol headquarters will be located at the Mountain Top restaurant. Duty stations will be located near the upper terminals of Lift 18, Lift 19, and Lift 14. There will be first aid facilities located in the Lower Village, the Upper Village and the Mid-mountain Day Lodge. Additionally, ski patrollers stationed in the headquarters and duty stations will monitor the summit ridge of Mt. Mackenzie (all access routes to the ridge are visible from one or more of the ski patrol stations) to prevent unauthorized travel

of skiers outside of the resort boundary and into the preserved powder snow that lies within the tenure areas for snowcat skiing or helicopter skiing.

The build-out plan for Mt. Mackenzie's snowmaking system provides coverage for approximately 120 hectares of alpine terrain. The emphasis of the snowmaking program will be coverage for all low elevation trails (below 800 metres) that return to the resort village, coverage for popular trails between elevations 800 metres and 1,400 metres, and coverage for one run that provides a return route from 1,700 metres elevation. Approximately 500,000 cubic metres of water will be required per year for snowmaking at Mt. Mackenzie.

Mt. Mackenzie's central mountain maintenance facility (1,000 sq. m.) is located near the base of Lift 22 (see Figure IV-1), a location with all weather road access and snow frontage. In addition, 550 sq. m. on-mountain maintenance facilities and remote fuel storage depots will be located near the Mid-mountain Day Lodge and near the lower terminal of Lift 9. These on-mountain facilities will minimize the travel time for grooming vehicles to reach the extensive trail network.

Installation and maintenance of most of the lift terminals and all of the on-mountain guest service facilities at Mt. Mackenzie will necessitate the construction of access routes. A total of 1.7 km of existing logging/mining roads will be improved and used for construction and on-going maintenance. A total of 4.0 km of existing snowcat roads will be improved and used for construction and on-going maintenance. In addition, 38.3 km of new mountain work roads will be created; 15.6 km of these proposed roads will be along proposed skiways.

2. Phased Development Summary

Throughout the development process, expansion of the resort must be carefully coordinated to maintain balance among skier demand and the mountain capacity (e.g., lifts and trails). In addition, the development plan must ensure that adequate support equipment and facilities (e.g., day lodge services and facilities, grooming machines, utility infrastructure, and parking) accompany the mountain development at each phase of construction. A carefully balanced mountain and support facility development program will ensure a sustainable resort operation – helping resort management safeguard the financial performance of Mt. Mackenzie.

The following table summarizes the recommended development schedule for implementation of the major alpine skiing facilities. The components of any particular phase may be completed

over a one- to five-year time frame, or longer if necessary. Additionally, certain components of the improvement program may be initiated outside of the proposed phasing sequence.

**Mt. Mackenzie Mountain Master Plan
Executive Summary
Phased Development Summary**

	Phase 1	Phase 2	Phase 3	Build Out
Total Number of Lifts	5	9	15	25
Number of Gondolas	0	1	3	3
Number of Det. Chairlifts	2	4	6	12
Number of Fixed-Grip Chairlifts	2	3	4	8
Number of Beginner Lifts	1	1	2	2
Vertical Drop	1,210 m./3,970 ft.	1,815 m./5,950 ft.	1,815 m./5,950 ft.	1,845 m./6,055 ft.
Skiable Area (est.)	400 ha.	800 ha.	1,200 ha.	2,000 ha.
Number of Ski Runs	32	54	69	110
Developed Ski Run Area	167 ha.	300 ha.	429 ha.	665 ha.
% Beg. / % Int. / % Adv. (Goal – 20%/60%/20%)	17% / 73% / 10%	17% / 52% / 31%	17% / 56% / 27%	16% / 58% / 26%
CCC	4,800 skiers/day	7,210 skiers/day	10,200 skiers/day	17,050 skiers/day
Snowmaking Coverage	38 ha.	54 ha.	87 ha.	122 ha.
Number of Guest Service Buildings	2	3	4	6
Guest Services Space	6,400-8,000 sq. m.	9,600-12,100 sq. m.	13,600-17,000 sq. m.	23,000-28,750 sq. m.
Food Service Seats	1,577	2,387	3,373	5,716
Guest Parking Spaces	600	1,010	1,074	1,500

Note: Numbers indicate cumulative totals at completion of each phase.

D. OPERATIONAL PLANS ASSOCIATED WITH CAT POWDER SKIING, INC. PRIOR RIGHTS

1. Introduction

CAT Powder Skiing, Inc. (CPS) holds prior rights for use of certain areas within the proposed resort CRA for operation of its snowcat skiing program. CPS's prior rights are outlined in a total of four agreements between CPS and the City of Revelstoke, and between CPS and the Province of British Columbia. Land and Water B.C. has confirmed that these agreements sufficiently address the issues of prior rights between the three parties. To generalize these agreements, CPS has the right to continue operation of its snowcat skiing program within Zones 2, 3, 4 and 5 of its tenure area until each portion of those areas is required by the Alpine Operator for lift-serviced skiing. Zone 1 of the CPS tenure area (the "North Bowl") is to be excluded from the alpine ski tenure area unless a specific agreement is made between CPS and the Alpine Operator. In accordance with the intent of the four prior rights agreements operations plans have been developed to satisfy the prior rights of CPS.

2. Operational Plans

Two operating scenarios have been identified for integration of CPS with the alpine resort operation. Under Scenario 1, the integration of CPS with the alpine resort operation would occur just as provided for in the agreements with the City of Revelstoke and the Province. The second operating scenario is one in which the Alpine Operator would buy out the North Bowl portion of the CPS Tenure (Zone 1) and CPS would move its operation entirely to Mt. Cartier (zones 6, 7, 8 and 9).

In the event that the North Bowl tenure area is not bought out by the Alpine Operator, the integration of CPS with the alpine resort operation would be accomplished in two stages and would presumably correspond with the phasing of the resort development. According to this phasing schedule, CPS operations on Mt. Mackenzie could continue for ten or more years after initiation of the resort development. Afterwards, it is projected that the CPS snowcat skiing operation would be relocated to its replacement tenure area on Mt. Cartier, and terms of the prior rights agreements would go into effect.

For the period during which both CPS and the alpine resort operator are sharing use of Mt. Mackenzie, operational plans have been developed to: 1) provide for the replacement of CPS facilities as per the prior rights agreements, 2) address the integration of CPS operations and resort operations without causing conflicts between the two uses, and 3) to provide management direction for preventing resort guests from traveling outside of the CRA boundary for “off piste” skiing within the tenure areas of CPS (and Selkirk Tangiers).

E. RESORT COMPETITIVE ANALYSIS

1. Introduction

In conjunction with the preparation of the Mountain Master Plan, a resort competitive analysis has been prepared for the Mt. Mackenzie proposal. The Resort Competitive Analysis has been prepared to evaluate the potential competitive effect on other existing ski resorts within the eastern portion of British Columbia resulting from the development of the 2003 Mt. Mackenzie proposal.

Overall, British Columbia continues to be a leading force in skier visitation growth across Canada, growing faster than any other region in North America during the last decade. With Vancouver hosting the 2010 Winter Olympics, combined with the goal of the Provincial Government to double tourism in the next eight years through the new Heartland’s Economic Strategy, the future is very bright for continued expansion of the ski industry in British Columbia, especially in the more undeveloped eastern part of the province. Additionally, the U.S. market has witnessed record skier visitation in two of the last three ski seasons, an indication that the lifestyle associated with skiing and winter sports is in a growth phase.

The projected skier visit growth for Mt. Mackenzie is estimated to be approximately 81,000 skier visits in the first year of operation and growing to about 500,000 visits during the fifteen year projection period. By comparison, Beaver Creek, CO and Deer Valley, UT (both developed in the early 1980’s) achieved 550,000 and 450,000 skier visits, respectively, after 15 years of operation.

To determine what effect Mt. Mackenzie may have on other existing ski resorts, in the future, it is important to review and evaluate a number of key market indicators and variables. Accordingly, this study seeks to provide qualitative and quantitative information at a macro and

micro level through evaluating broad skier market trends, identifying competitive factors at other resorts, providing data from other comparable situations and projecting potential impacts on skier visits at nearby competing resorts. The Resort Competitive Analysis tiers to and updates information contained in the Market Assessment (1999) prepared by ERA.

2. Skier Visit Trends

The analysis of skier visit trends involves a review of historic visitation data from the U.S., Canada, British Columbia and other provinces, regions and states.

United States Visitation

Current trends suggest that skiing is now in a rebound mode, breaking all time visitation records in 2000/2001 (57.3 million) and again in 2002/2003 (57.6 million). Overall, these gains follow the NSAA “Growth Model” campaign which was initiated in the fall of 2000. Certainly, one important aspect of future growth is focused on the rate of “trial and conversion” of skiers/boarders to life-long participants, not to mention the retention of existing skiers/boarders. During the past nine ski seasons (94/95-02/03), the US has seen an overall increase in skier visits of 9%. Clearly, recent evidence shows renewed interest and growth in an industry that has witnessed national-level stagnation for many years. Future skier demand must be accommodated through the expansion of existing facilities and the development of new resorts.

Canadian Visitation

Canada has seen an overall increase in visitation of 14% for the past nine ski seasons. During this period, British Columbia witnessed a 16% increase, slightly higher than Alberta (13%). This comes at a time when the number of Americans who are hitting the slopes in Canada is growing. In fact, 1998 marked the first time that Americans made more overnight trips to ski in Canada than Canadians traveled to the U.S. for skiing. A number of studies suggest a continuing of this trend, with higher volumes of Americans traveling to Canada for ski vacations. Recognizing the opportunities associated with changing demographics and lifestyle preferences throughout North America, the Canadian ski industry has widely adopted the NSAA “Model for Growth”. As a result, the Canadian Ski Council is in the process of fostering future growth through improving the rate of “trial and conversion” for new entrants, as well as ways to retain existing participants.

British Columbia Visitation

Over the past two decades, skier visitation has grown dramatically in British Columbia, from approximately 2.6 million (1983/84) to 5.5 million (2002/03) visits. In fact, British Columbia hit an all time record of 6.2 million visits during the 2001/02 ski season. Overall, the combination of expansion and upgrading of existing resorts and the development of new resorts, coupled with government sponsored tourism and resort development programs, has lead to impressive skier visitation growth, both in percentage and absolute numbers.

British Columbia as a Ski Destination

Throughout the 1990s and beyond, British Columbia resorts have continued to make substantial investments in year-round facilities and real estate. As the ski areas continue to invest in ski-related projects and develop non-ski amenities as well, both skiers and non-skiers will be attracted to the region and the industry economy will continue to expand. The further development of British Columbia as a destination ski market is fully supported by the Provincial government. Previous projects such as the Commercial Alpine Ski Policy and Mountain Resort Association Act have been implemented to assist ski areas in gaining a greater share of the destination ski market.

Hosting of the 2010 Winter Olympic Games in Vancouver is another investment that will yield tremendous worldwide visibility to British Columbia skiing and general tourism opportunities. Such an event will provide added visibility and continued long-term opportunities for British Columbia as a ski destination.

Recently, the British Columbia government initiated the Heartlands Economic Strategy (2003) with a focus on revitalizing the economy of rural and northern communities that are the heart of the province's economic strength through the development of strategies that will open up the heartland of the province and make sure that industries such as forestry, agriculture, tourism, energy and fishing continue to provide jobs and a future in communities throughout British Columbia.

Additionally, in order to further promote British Columbia's World-Class-All-Season Resorts, the province has formed a British Columbia Task Force to, 1) work with resort operators, communities and First Nations to promote B.C. as a world-class resort destination, 2) increase

jobs and opportunities at British Columbia resorts, including ski destinations and 3) help ensure every region gets maximum benefit from hosting the 2010 Winter Olympic Games.

One of the most important components of the Canadian Alpine Ski Policy is the provision for developing real estate bed units in proportion to planned ski area development and expansion through the Master Planning process. At a time when the demand for second-homes has been at an all-time high, and will continue at such a pace for the next decade, British Columbia resorts have been able to develop residential properties to serve the market need. These bed-units have created loyal customers and provide hot-beds for destination visitors. Real estate at British Columbia resorts has also become an attractive investment opportunity for many residents of the U.S. due to the benefit of the strong dollar.

3. Competitive Analysis

Introduction

There are numerous factors and variables which ultimately affect the performance and success of Mt. Mackenzie and its direct competitors. Mt. Mackenzie will compete for skier visits within the local, regional and destination markets, as noted below.

Local Market

The existing Mt. Mackenzie ski area caters primarily to local skiers and generates about 15,000–20,000 skier visits annually. Since the next closest ski areas are Kicking Horse in Golden (1 ¾ hours) and Silver Star in Vernon (2 hours), Mt. Mackenzie is extremely important to local skiers. With the development of Mt. Mackenzie, it is projected that resorts such as Kicking Horse and Silver Star would realize a nominal reduction in skier visits (less than 1%), as residents of Revelstoke would be more prone to ski at the Mt. Mackenzie resort.

Regional Market

Regional ski areas and resorts typically draw skiers from within a 5-hour driving radius or approximately 250 miles. Examples of regional ski resorts serving the Vancouver market include Sun Peaks, Silver Star, Apex and Big White. From the Calgary market, British Columbia regional areas include Fernie, Panorama, Kicking Horse, and Kimberly.

From a regional market perspective, numerous intervening opportunities exist to the west and east of Mt. Mackenzie. The majority of regional visitors will view Mt. Mackenzie as too remote and distant from the regional market. Accordingly, in a continually growing market, the development of Mt. Mackenzie is not projected to materially impact the growth of regional skier visits at the existing resorts.

The eastern portion of lower British Columbia is divided between the Thompson-Okanogan and B.C. Rockies region. At a macro scale, all the resorts in the eastern part of the province stand to benefit from the continued support for tourism development by the provincial government, especially as part of the new Heartlands Economic Strategy.

Regional/Destination Market

A destination resort is one that can attract skiers for mid-week vacations and longer duration visits. The most important factor for a destination resort is accessibility, either by air, automobile or combination. Many of the ski areas throughout British Columbia serve the regional/destination market. Residents from Washington, Oregon, Idaho, Montana, British Columbia and Alberta travel to resorts such as Whistler, Sun Peaks, Mt. Washington, Panorama, Big White, and Fernie, for vacations and holidays that typically extend 5-7 days.

Mt. Mackenzie will provide another option for the drive-to regional/destination visitor, although these visitors will have to travel one or more hours beyond the existing resorts, placing Mt. Mackenzie in a locational disadvantage. Based upon the historical growth of skier visitation in British Columbia, coupled with new strategies to double tourism and skiing in the province (i.e. Heartlands Economic Strategy), 100,000 skier visits generated from within the regional destination market at Mt. Mackenzie would potentially cause a .08-1.0% reduction in skier visits at competing resorts in the initial years (2-5).

The eventual success of Mt. Mackenzie in the destination marketplace will be focused on attracting new skiers from the broader destination marketplace, including Canada, the U.S., Europe and Asia. This will be achieved by benefiting from the future market synergy created by all British Columbia/Alberta resorts, building on the existing visibility of Revelstoke as a destination unto itself, continued growing demand for skiing and visiting four-season resorts, developing partnerships with the airline and other transportation carriers, and marketing the unique aspects of the resort. Clearly, as demonstrated in the case of Jackson Hole and Telluride,

remoteness, when coupled with superlative natural beauty, can become a major asset in the formula for success. Simply stated, Mt. Mackenzie is unlike any other four-season resort development in British Columbia. Accordingly, skier visitation growth at Mt. Mackenzie will not occur at the expense of surrounding ski areas, as the proposed resort will tap into a much greater target market. In fact, the presence of a major new resort in eastern British Columbia will more likely become a stimulant to further growth by all the surrounding areas.

I. INTRODUCTION

A. BACKGROUND

Mt. Mackenzie has been a popular destination of alpine skiing enthusiasts for several decades. Its abundant snow pack, consistent slopes, and alpine bowls create an ideal setting for top quality skiing that is exemplary of the interior of British Columbia and the Selkirk Mountains. Currently, the slopes of Mt. Mackenzie are accessed for skiing via ski lifts (Powder Springs Ski Area), snowcats (CAT Powder Skiing), and helicopters (Selkirk-Tangiers Helicopter Skiing).

The first ski lifts were installed on the lower slopes of Mt. Mackenzie in the early 1960's, providing a popular and convenient winter recreational outlet for citizens of the City of Revelstoke and surrounding communities. Today, the existing Powder Springs Ski Area sits on approximately 175 hectares (450 acres) of City (28 hectares) and Crown (147 hectares) land on the lower, western flank of Mt. Mackenzie. Improvements include approximately 14 developed runs (22 hectares/55 acres of skiing), a double chairlift with about 300 meters (1,000 feet) of vertical rise, a beginner's handle tow, a 4,000 sq. ft. day lodge, a maintenance building, and day skier parking lots.

In the mid-1980's CAT Powder Skiing, Inc. initiated a snowcat skiing operation on the upper alpine and sub-alpine areas of Mt. Mackenzie under a License of Operation from the Provincial Crown. CAT Powder Skiing provides snowcat skiing on more than 80 named runs within an area of over 1,000 hectares (2,500 acres) surrounding the summit of Mt. Mackenzie. CAT Powder Skiing currently holds tenure for snowcat skiing on a 700-hectare parcel on the northern flanks below the summit of Mt. Mackenzie, but also operates within the Controlled Recreation Area (CRA) that has been set aside by the Provincial government for resort development on the southern and western slopes of Mt. Mackenzie. As Mt. Mackenzie is developed for lift-served alpine skiing, CAT Powder Skiing will shift its operations to its tenure area on the north side of Mt. Mackenzie and then to the west-facing slopes of neighboring Mt. Cartier (where CAT holds a second tenure for cat skiing). CAT Powder Skiing, Inc. has operated Powder Springs Ski Area for the past three seasons and shares use of the day lodge, maintenance facility and day skier parking lots.

Shortly following the introduction of snowcat skiing on Mt. Mackenzie (and presumably triggered by the extraordinary skiing that was discovered on the upper mountain by the snowcat skiing operation) the Provincial government and private developers started looking into ways of replacing the small lifts and snowcat shuttles that were providing service to the extent of Mt. Mackenzie with a larger ski lift network and resort development. Formal planning for the development of Mt. Mackenzie as a major destination resort started in 1984, when Ecosign Mountain Recreation Planners prepared the Mount Mackenzie Ski Area Master Plan. The 1984 Ski Area Master Plan uncovered the potential to develop 1,885 vertical metres (6,185 vertical feet) of skiing on Mt. Mackenzie, which would be the greatest in North America. In March 1991 SE Canada (the Canadian affiliate of Sno.engineering, Inc.) prepared the Mount Mackenzie Mountain Development Concept, which indicated that Mt. Mackenzie has the potential to accommodate in excess of 20,000 skiers per day. In February 1994, the City of Revelstoke retained SE Canada to complete a preliminary study of the minimum facility development necessary to effectively offer the destination skier marketplace a balanced, high-quality skiing experience on Mt. Mackenzie.

In the early summer of 1995, the City of Revelstoke, in cooperation with Crown Lands B.C., distributed an Invitation for Expression of Interest to qualified parties with the experience and financial strength to purchase the existing ski area, acquire Crown tenure over additional Crown Land, expand the existing ski area, and develop other mountain recreation activities and associated facilities on Mt. Mackenzie. In August 1999, a formal agreement was signed between the City of Revelstoke and Revelstoke Resort Limited (RRL), giving RRL nine months to prepare a “Vision” for the proposed expansion. In March 2000 RRL submitted the Mount Mackenzie Resort Expansion – Final Concept Report to satisfy the “Vision” request from the City of Revelstoke, and to initiate the master planning process in accordance with the BC Assets and Lands (BCAL) authority through the Commercial Alpine Skiing Policy Guidelines to Ski Area Development in British Columbia. BCAL accepted the Final Concept Report submitted by RRL and entered into an Interim Agreement with RRL, which sets the terms of reference for the preparation of a Master Plan for the Mt. Mackenzie project.

This document, the Mt. Mackenzie Mountain Master Plan, describes the proposal for development of lifts, ski runs, on-mountain buildings, and related support facilities on Mt. Mackenzie. This document also identifies areas to the north of the original CRA, which the proponent would like to have set aside by Crown Lands for future ski resort development

following build-out of the proposed project (see Figure I-2). The full build-out of the Mt. Mackenzie resort would occur over a minimum of 20 to 30 years, based on market demand.

The mountain resort's village centre will be situated, slope side, on a southwest facing plateau at an elevation of 500 metres. Access will be via existing roads, which will connect to the Trans-Canada Highway in the City of Revelstoke about six kilometres to the north. A second day skier base and mountain portal will be located about one kilometre to the south of the village centre, and guests will access the south portal on a new extension of the village access road. On-mountain real estate will extend up to the 800-metre elevation, where a small upper village is located, consisting of a large hotel, resort condominiums, and a day lodge for skiers. A small lodging hamlet will be located at the top of the Mt. Mackenzie gondola, with no road access. About 17 cabins will be available for rental to the public at the 1,700-metre elevation, and will have foot/snowshoe/ski access from the gondola, and food service from the Mid-mountain day lodge located adjacent to the gondola top terminal.

As proposed, the Mt. Mackenzie mountain recreation area will consist of 2,600 hectares of Crown Land within a 5,100-hectare study area. The mountain development will offer recreational activities during all seasons, including approximately 110 ski/snowboard trails (with a total area of 665 hectares), 25 lifts, a network of multi-use trails, and 4 on-mountain guest service facilities. The top of the highest proposed lift will be at 2,325 metres elevation (7,625 feet). The vertical drop of the mountain recreation area will be 1,845 metres (6,050 feet). According to industry standards, this terrain has been estimated to support a Comfortable Carrying Capacity (CCC) of 17,050 skiers/riders at one time.

The master planning of Mt. Mackenzie has identified potential additional ski terrain on the northern flanks of Mt. Mackenzie, extending down to the Illecillewaet River. This area offers a northern exposure, which is desirable for skiing, and creates the potential to develop a resort portal directly adjacent to the Trans-Canada Highway. Although the development of this northern terrain is beyond the scope and timeframe of this master plan it should be considered as potential future ski development and the terrain has been included as such in the project study area boundary.



Mt. Mackenzie Mountain Master Plan

December, 2003

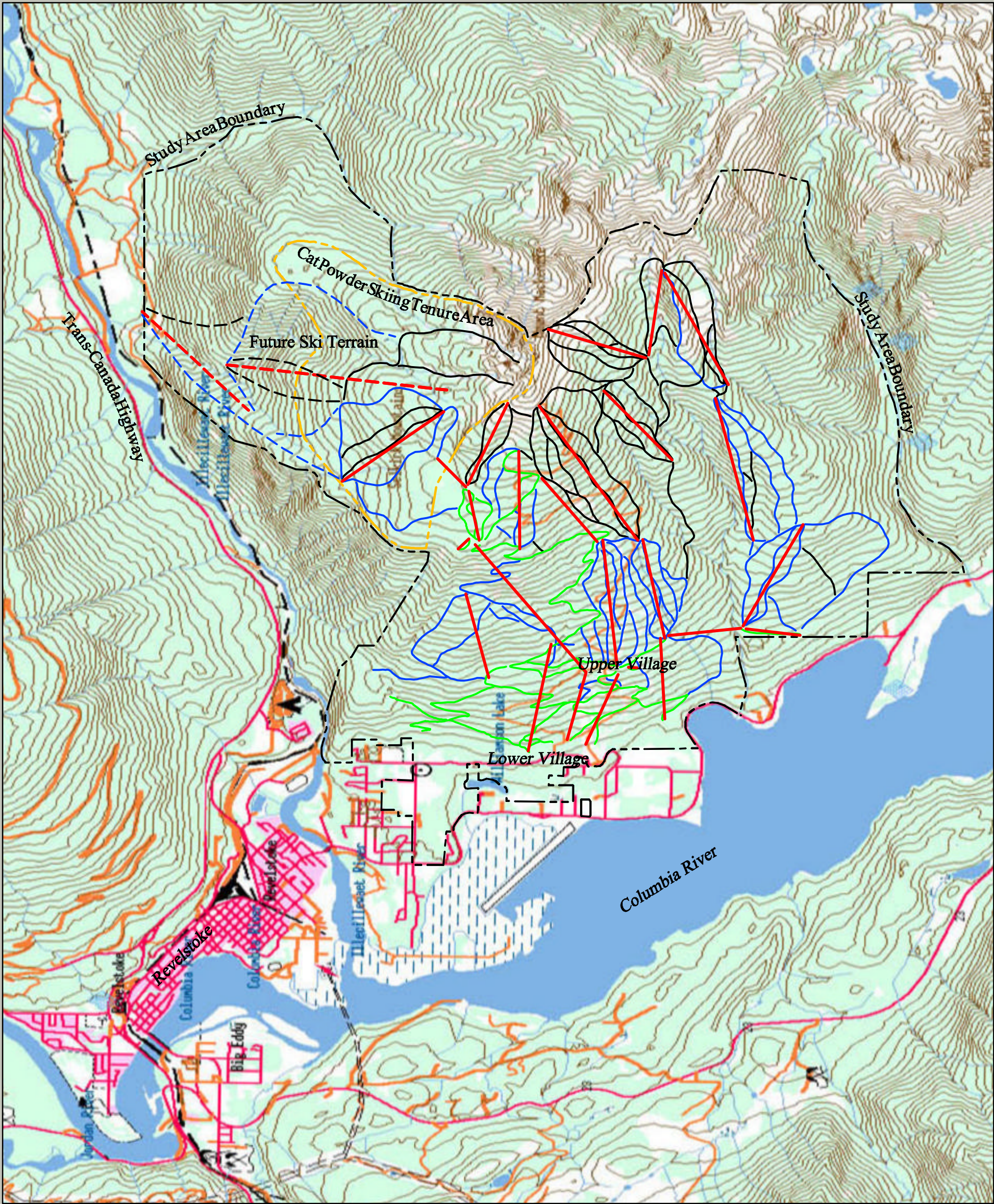
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REVELSTOKE ALPINE
VILLAGE, INC.

PREPARED BY:



REGIONAL LOCATION MAP
Figure I-1



PROJECT STUDY AREA
Figure I-2

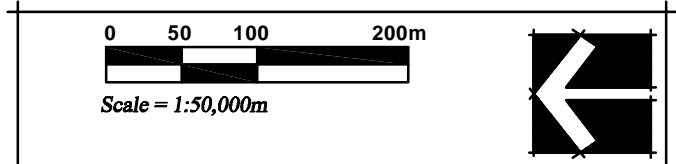
Mt. Mackenzie Mountain Master Plan

December, 2003

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B. GOALS AND OBJECTIVES

As a supporter of recreational development within the Province of British Columbia, the Ministry of Lands, Environment and Parks adopted and subsequently amended the *Commercial Alpine Skiing Policy* (CASP). CASP is intended to “provide for orderly, rational development and use of Crown land for commercial alpine ski purposes.” CASP sets forth the procedure a proponent or prospective applicant must follow to receive approval from the Ministry to proceed in the development of a recreational resort on Crown land. The policy is further supported by *Guidelines to Alpine Ski Area Development in British Columbia* (the Guidelines), a document that details acceptable standards for designing and balancing recreational and resort functions in a winter-oriented resort community.

The primary goal of this project is to create a successful, year-round destination recreational resort community on Mt. Mackenzie. Throughout the planning process, the proponent’s design team has and continues to use the Province’s CASP document and associated Guidelines, together with aesthetic and environmentally sensitive design philosophies, in creating and testing the concepts, master plans and infrastructure designs prepared for Mt. Mackenzie. The calculations and subsequent numbers contained in this document are derived from the planning parameters provided in the Ministry’s Policy and Guidelines.

Meeting CASP and GASAD Requirements

Mt. Mackenzie meets the criteria for a Destination Resort as defined in the CASP Guidelines, Section I.7.5, document as follows:

1. Mt. Mackenzie will have the greatest vertical drop of all ski resorts in North America and will rank in the top tier of ski resorts world-wide in terms of vertical drop. Mt. Mackenzie’s exceptional vertical drop is combined with abundant natural snowfall, consistent fall-lines, natural bowls that are ideal for snow retention and skiing, and a beautiful, natural setting that is uncommon in North America. To augment these outstanding natural features the Proponent intends to provide high speed, high capacity lifts (for short lift lines and fast lift trips) and high quality facilities in order to offer guests the optimum recreational experience. At the same time Mt. Mackenzie endeavors to be at the forefront of the industry in lift and trail management.

2. Mt. Mackenzie is intended to serve local, regional and destination skiers with emphasis on catering to destination needs and services through its range of year-round recreational opportunities, visitor amenities and accommodations.
3. Mt. Mackenzie is proposing a CCC of 17,050 skiers at one time. The Guidelines indicate that a destination resort requires a CCC of “+/- 5,000 to 12,000 plus skiers per day” as stated in Section I.7.5. Hence the proposed Mt. Mackenzie CCC is above the requirement for a destination resort.
4. Mt. Mackenzie is proposing to install lifts ranging from state-of-the-art teaching lifts, to fixed grip chairlifts, high-speed detachable chairlifts, and detachable gondolas, representing the full range of lift types appropriate for a destination resort.
5. The area proposed to encompass the skiing/snowboarding terrain covers 2,600 hectares within a parent study area totaling 5,100 hectares.
6. Total vertical drop from the top of Lift 18 (highest elevation) to the base of Lift 4 is 1,846 metres (6,056 feet), which is within the range suggested in the guidelines (“+/- 700 to 1,500 metres plus,” Section I.7.5).
7. Mt. Mackenzie is approximately six hours from Vancouver, British Columbia and 4.5 hours from Calgary, Alberta, which puts the resort within the suggested driving distance of a substantial user markets. (The Guidelines, Section I.7.5 indicates a driving time from the market for destination resorts of from 2 to 6 hours.)
8. Kelowna and Kamloops international airports are two hours from Mt. Mackenzie, and consequently, well within the CASP Guidelines (2 to 3 hours as indicated in the Guidelines, Section I.7.5).
9. Over the proposed 20 to 30 year project development (based on market demand), Mt. Mackenzie will construct accommodations totaling approximately 16,600 bed units.

Project Objectives

The primary objective of the project is to enhance the role of Mt. Mackenzie and the City of Revelstoke as an attractive destination area in order to compete more effectively within the regional and destination markets and provide further year-round economic stability for the community.

In response to the desires of certain current and past City Council members under mayor Jeff Battersby, a second key objective in developing the Master Plan for Mt. Mackenzie is to balance

the mountain facilities with base area accommodations such that the *bed unit count of the resort will always be less than the total number of bed units in the City of Revelstoke.*

In accordance with its agreement with the City of Revelstoke, as well as in response to concerns voiced during the project public meetings, the proponent is committed to ensuring that *permanent residents of the City of Revelstoke and Electoral Area B of the Columbia Shuswap Regional district have affordable access to the ski facilities on Mt. Mackenzie.*

Phasing of the mountain development will be configured to integrate implementation of lift-served skiing with the gradual relocation of CAT Powder Skiing. It is recognized that snowcat skiing operations may continue within the resort CRA until each portion of the CRA is required by the resort operator for lift-served skiing.

An operational objective of the project is to establish a means to prevent unauthorized travel of skiers outside of the resort boundary and into the preserved powder snow that lies within the tenure areas for snowcat skiing or helicopter skiing adjacent to the resort CRA boundary. The tenure areas for CAT Powder Skiing and Selkirk Tangiers Heli-skiing will be marked “out of bounds” for resort skiers. Skiers who are caught in or returning from out of bounds areas will be prosecuted in accordance with resort regulations and regional laws for backcountry skiing. To control unauthorized skiing outside of the CRA, ski patrol duty stations will be positioned along the ridge between the CRA and CAT and Selkirk tenure areas. The patrol duty stations will be positioned so that the entire length of the ridge is visible. At any location where lifts deposit guests directly at the ridge, a duty station will be located at the lift terminal to manage the boundary.

The following additional objectives have been drafted in order to guide development of the Master Plan.

1. Maximize the use of terrain within the project study area for skiing while developing facilities at Mt. Mackenzie that reach a balance between the physical resources of the site, the demands and expected response of the market, and the economic indicators of the operation.
2. Design the trail network with a distribution of terrain by skier ability level that closely matches the ability level profile of the skier marketplace.
3. In the phasing of mountain development, expedite access to terrain above 1,700 metres elevation, where the snow pack is deeper and the snow quality is better. High-priority terrain on the upper mountain includes the gentle (i.e., ski school and low

intermediate) slopes above the northwest bench, and the popular powder bowls in the alpine areas above tree line.

4. Provide snowmaking coverage on all terrain below the 800-metre elevation, and on high-use trails between elevation 800 metres and 1,400 metres.
5. Install high-capacity lifts to minimize lift lines while maintaining trail densities (skier-per-hectare ratio) that are lower than industry standards.
6. Provide sufficient out-of-base lift capacities to facilitate skier circulation during morning access periods and to prevent long morning lift lines. Likewise, provide adequate runs returning to the base village to facilitate skier circulation during the afternoon egress period and to prevent crowding on the egress runs.
7. Provide adequate parking to accommodate anticipated volumes of day skiers and create a functional transportation center for buses and vans servicing the City of Revelstoke, major airports and train terminals, as well as regional guests from the surrounding area.
8. Configure the base area facilities and lifts to minimize distance and uphill grade differential to lift terminals.
9. Preserve and enhance the unique qualities of the environs, especially as they relate to the ski experience.
10. Minimize the environmental impacts of development through the use of design, construction, and maintenance techniques that are sensitive to all resources, including: vegetation, heritage, visual, hydrologic, soil, air quality, wetlands, habitat, wildlife/fisheries, and recreational.
11. Manage tree stands to promote long-term continuation of forest cover, provide aesthetic settings, and enhance recreational potentials. Intersperse manmade openings in tree stands to enhance naturally occurring meadows and create glade skiing opportunities.

II. MOUNTAIN DEVELOPMENT ANALYSIS

A. INTRODUCTION

The objective of the Mountain Development Analysis is to identify the full potential of the study area to support ski¹ resort development, and to make sure that the optimal mix of skiing terrain is established and that sufficient land is set aside for the necessary support facilities (e.g., access roads, skier drop-off areas, parking, day lodges, village development, etc.). The following analyses are based on evaluation of 1:5,000 scale mapping (with a 5-metre contour interval); review of project documentation and reports; aerial reconnaissance of the project area; on-the-ground field reconnaissance and ground truthing of the site; correspondence with mayor, council, staff, and business representatives from the City of Revelstoke; and discussions with representatives from Land and Water BC.

B. SITE INVENTORY

The Mountain Development Study Area (where developed skiing and associated facilities will occur) is located in the southern sector of the overall project study area (see Figure I-2). The mountain development will encompass approximately 2,600 hectares (6,400 acres) of Crown Land within the Mt. Mackenzie project study area of 5,100 hectares (12,600 acres). The study area is bounded on the north by unallocated Crown lands and the Illecillewaet River, to the east by Selkirk Tangiers Helicopter Skiing tenure area, to the south by CAT Powder Skiing tenure area on Mt. Cartier, and to the west by the Columbia River. The mountain terrain is defined by a major ridgeline, which connects the west summit of Mt. Mackenzie (repeater site) to the main Summit of Mt. Mackenzie and continues to the southeast towards Kokanee Bowl and beyond. The majority of the skiable terrain is on the south- and west-facing slopes below the main and west summits of Mt. Mackenzie. The slopes flatten at the western foot of the mountain, and there are a number of flat benches at or just above the toe of the slopes in this location. These areas are suitable for base area development. The highest point of the study area, the summit of Mt. Mackenzie, is 2,455 metres (8,055 feet).

The southwest-facing slopes of Mt. Mackenzie drain into Montana Creek, which forms a deeply incised ravine that creates an east-west trending barrier through the site. While the slopes to the

¹ Throughout this report, the term “ski” or “skiing” is used to represent all of the various types of snow sliding (e.g., alpine skiing, telemark skiing, snowboarding, ski-boarding, etc.).

south of Montana Creek are advantageous for ski development, access to those slopes would require some form of built connection, such as a large bridge, an aerial lift spanning the Creek, or road access from Airport Drive.

Slopes to the north of Mt. Mackenzie's summit include alpine terrain in the so-called North Bowl, and the relatively gradual, forested and undulating terrain that falls to the north and northwest from the North Bowl. This area is under tenure to CAT Powder Skiing for snowcat skiing operations, and there are two snowcat roads that traverse into the area. Despite its use for snowcat skiing currently, this north area has excellent characteristics for lift-served skiing if the snowcat operation is relocated to a different site. At the southwestern edge of the CAT tenure area, extending into the CRA at the 1,700-metre elevation is a large, flat bench. This flat terrain is well suited for mid-mountain skier support facilities and beginner terrain, as well as Nordic skiing terrain, mountain bike and hiking trails and potentially a small enclave of lift-served real estate development.

A combination of existing logging roads and snowcat access roads provide access to the upper elevations of the study area, extending as far south and east as Kokanee Bowl.

Adjacent Land Use

The proposed Mt. Mackenzie CRA is surrounded by land uses that are complementary to the proposed ski resort development. Lands to the north of the project area will continue to be used for snowcat skiing by CAT Powder Skiing. In the event that the CAT snowcat skiing operation relocates, the unallocated Crown land extending to the Illecillewaet River should be dedicated to future expansion of Mt. Mackenzie. Terrain to the east of the project area is the existing and amended tenure area for the Selkirk Tangiers Helicopter Skiing operation. The area to the south of the project boundary is amended tenure area for the CAT Powder Skiing operation on Mt. Cartier. Base lands to the west of the proposed CRA boundary are private land holdings, including parcels that are controlled by the Proponent and the City of Revelstoke, which will be used for the resort village and real estate development.

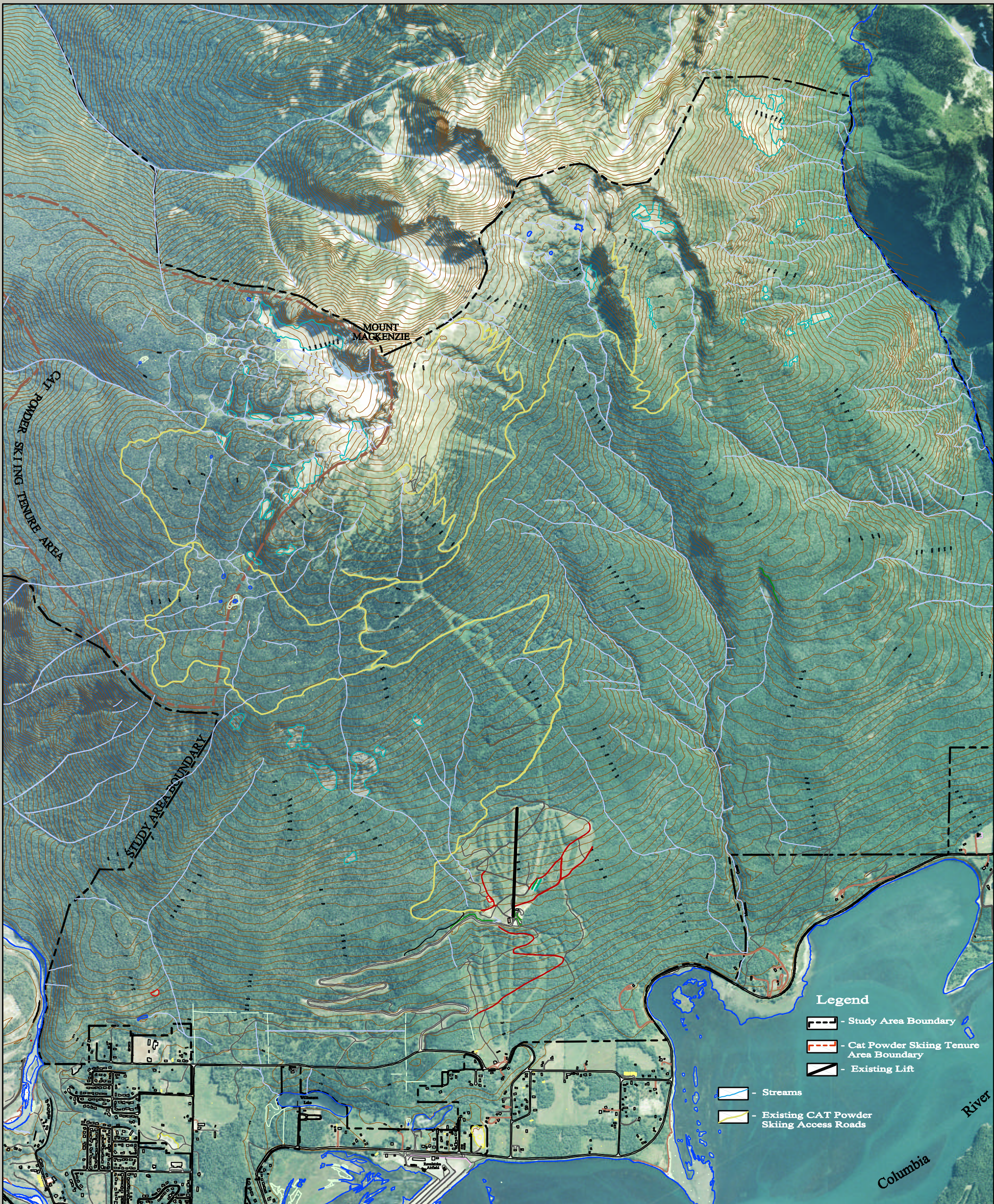
Existing Environmental Conditions

An inventory of baseline environmental resources within the Mt. Mackenzie study area is provided in Section X [ENKON]. Specific natural resources which must be protected or avoided while designing the mountain facilities include identified geologic hazards and stream corridors/riparian reserves, as well as mature tree stands which may support goshawks.

According to representatives from the Ministry of Forests (MOF), no specific planning guidelines are necessary to account for the grizzly bear, due to the size of surrounding habitat areas and the resident population. MOF also indicated that mountain goats are unlikely to utilize the proposed project area during the winter months due to the aspect and wind blown nature of the upper mountain alpine areas.

Development Regulations

Land and Water BC will designate the approved project area as a Controlled Recreation Area. A Controlled Recreation Area designation provides for alpine skiing development. Therefore, the proposed development is consistent with current land management and development regulations. Other development regulations that have been observed include Provincial regulations for natural geologic hazards and environmental setbacks on Crown land, and City zoning and Regional Rural Land Use By-Law provisions on private land.



EXISTING CONDITIONS
Figure II-1

Mt. Mackenzie Mountain Master Plan

December, 2003

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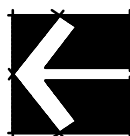
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VILLAGE, INC.

PREPARED BY:



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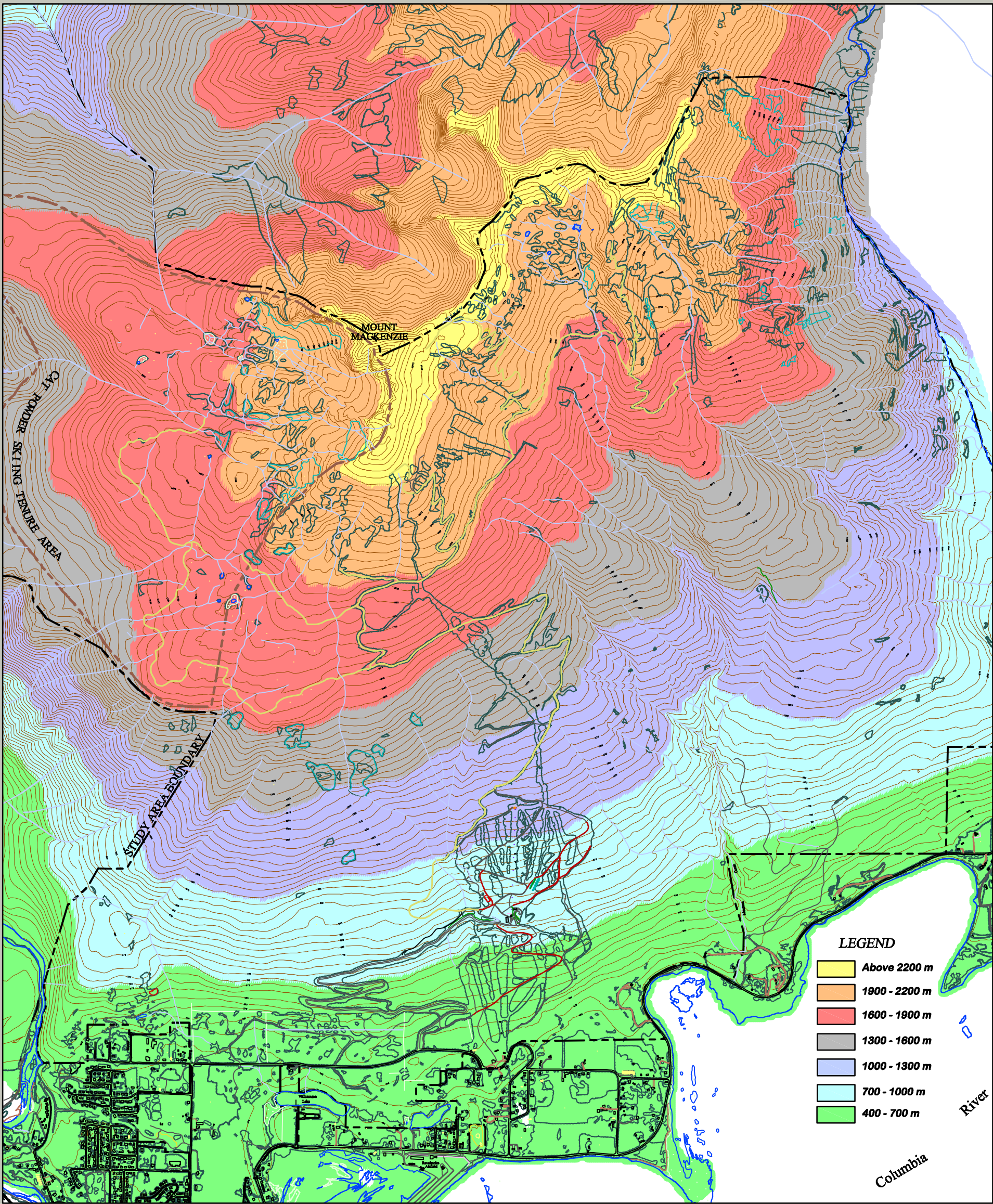


C. ELEVATION ANALYSIS

The Mt. Mackenzie study area's elevation analysis graphically depicts the range of elevations found within the study area boundary and illustrates the general flow of the natural topography. As shown in Figure II-2, elevations range from the 500-metre elevation (1,640-foot elevation) at the base of the original Mt. Mackenzie Ski Area to an elevation of 2,450 metres (8,040 feet) at the summit of Mt. Mackenzie.

Slopes above the 1,200-metre elevation (3,940-foot elevation) receive consistent, abundant, high-quality snow. From the 800-metre elevation (2,620-foot elevation) to the 1,200-metre elevation, the snow pack is not as consistent as the upper elevations, and the snow quality is not as good. The snow pack below the 800-metre elevation is very unreliable during the beginning and end of the ski season.

Figure II-2 illustrates a vertical drop of over 1,900 metres (6,200 feet) and topographic relief which is favorable for the development of alpine skiing terrain.



ELEVATION ANALYSIS
Figure II-2

Mt. Mackenzie Mountain Master Plan

December, 2003

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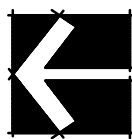
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VILLAGE, INC.

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D. SLOPE GRADIENT ANALYSIS

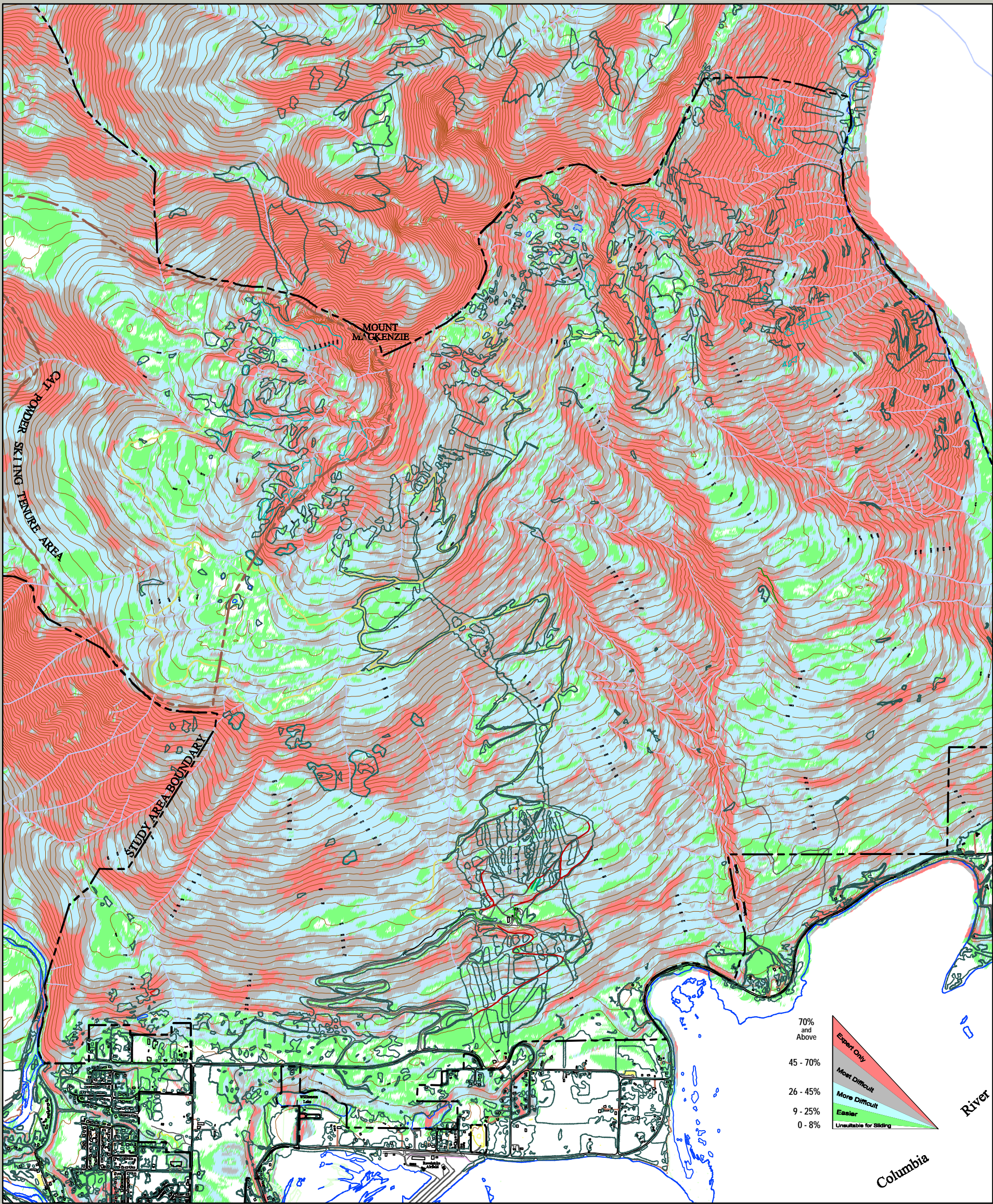
The study area's slope gradients range from zero percent to greater than 100 percent. The slope gradient analysis indicates that the study area is dominated by moderate terrain, suitable for intermediate-level skiers (i.e., gradients of 25 to 45 percent). In general, the private lands at the base of the study area have gentle slopes, ranging from zero to 25 percent. These gradients are appropriate for residential and commercial development, as well as beginner and novice terrain. The bench area at the 1,700-metre elevation, at the north end of the project area, also consists of gentle terrain – gradients appropriate for beginners and novices. The summit ridge of Mt. Mackenzie, and isolated bands at mid-mountain, are characterized by steep terrain (i.e., gradients in excess of 45 percent), which is desirable for advanced intermediate and expert skiers.

The study area's slope gradient analysis is illustrated in Figure II-3. The full range of skiable slope gradients have been color coded to represent the universal terrain designations (i.e., easier, more difficult, most difficult, and experts only). The color designations are described below.

- **White** - Slope gradients between zero and eight percent (0 to 5 degrees) are too flat for skiing and snowboarding, but are ideal for up-mountain support facilities, base area facilities, resort real estate, and golf course development.
- **Green** - Slope gradients between nine and 25 percent (5 to 15 degrees) are ideal for beginner skiers and snowboarders, and are suitable for some up-mountain support facilities, base area facilities, resort real estate, and golf course development.
- **Blue** - Slope gradients between 26 and 45 percent (15 to 24 degrees) are ideal for intermediate skiers and snowboarders, and are suitable for limited types of resort real estate development.
- **Black** - Slope gradients between 46 and 80 percent (24 to 40 degrees) are ideal for expert skiers and snowboarders, but can pose intermittent avalanche hazards and are typically too steep for resort real estate development.
- **Red** - Slope gradients greater than 80 percent (greater than 40 degrees) are too steep for most skiers and snowboarders (must have the skills associated with extreme skiers and snowboarders) and any type of development and are likely avalanche paths.

Slopes in the study area's higher and middle elevations include a variety of terrain suitable for advanced skier ability levels. Terrain for intermediate-level skiers is dispersed throughout the site, and slopes desirable for beginner and novice skiers occur in the base area and at the 1,700-

metre bench. Careful placement of lifts and trails across the mountain should enable a distribution of ability levels which matches the ability profile of Mt. Mackenzie's local, regional, and destination markets.



Mt. Mackenzie Mountain Master Plan

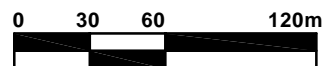
December, 2003

SLOPE ANALYSIS
Figure II-3

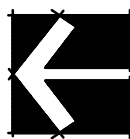
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VILLAGE, INC.

PREPARED BY:



Scale = 1:30,000m
25 m Contour Interval

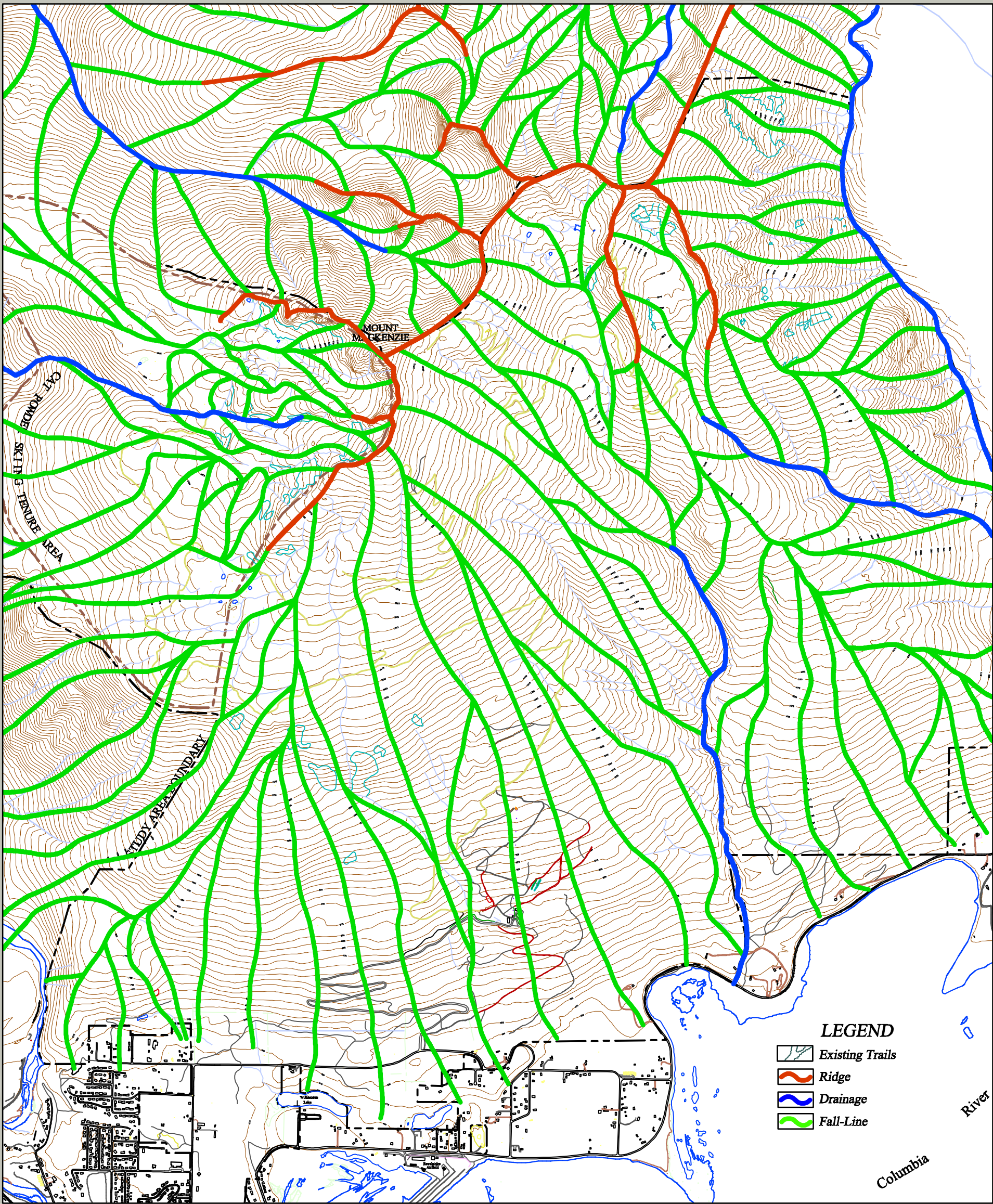


E. FALL-LINE ANALYSIS

Fall-line represents the path an object would take as it descends a slope under the sole influence of gravity (i.e., a ball rolling down a smooth slope would follow a fall-line path). Terrain with consistent fall-lines has the greatest potential for providing a quality trail network. Consequently, a mountain with consistent fall-lines usually has more development potential than a mountain with non-uniform fall-lines. In addition to better recreational potential, a mountain with naturally consistent fall-lines will yield high quality trails with a smaller amount of earthwork – a factor that yields environmental and “bottom-line” dividends. While the development of off fall-line “shots” are at times advantageous in the development of alternative terrain, consistent fall-line terrain should constitute the majority of a resort’s trail network.

A fall-line analysis captures a study area’s prominent ridges, prominent drainages, fall-lines, and areas of convergence. The fall-line analysis (Figure II-4) identifies the natural flow of descents – from Mt. Mackenzie’s higher elevations to the valley and basin floors. It also helps differentiate pods of terrain and helps illustrate development potential.

As Figure II-4 demonstrates, Mt. Mackenzie’s geomorphology creates consistent and lengthy fall-lines throughout the study area. With careful lift and trail planning, it should be feasible to design well-integrated and efficient lift and trail networks, with a limited amount of earthwork.



FALL-LINE ANALYSIS
Figure II-4

Mt. Mackenzie Mountain Master Plan

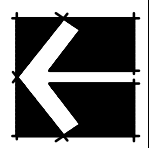
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PREPARED BY:

SE GROUP®

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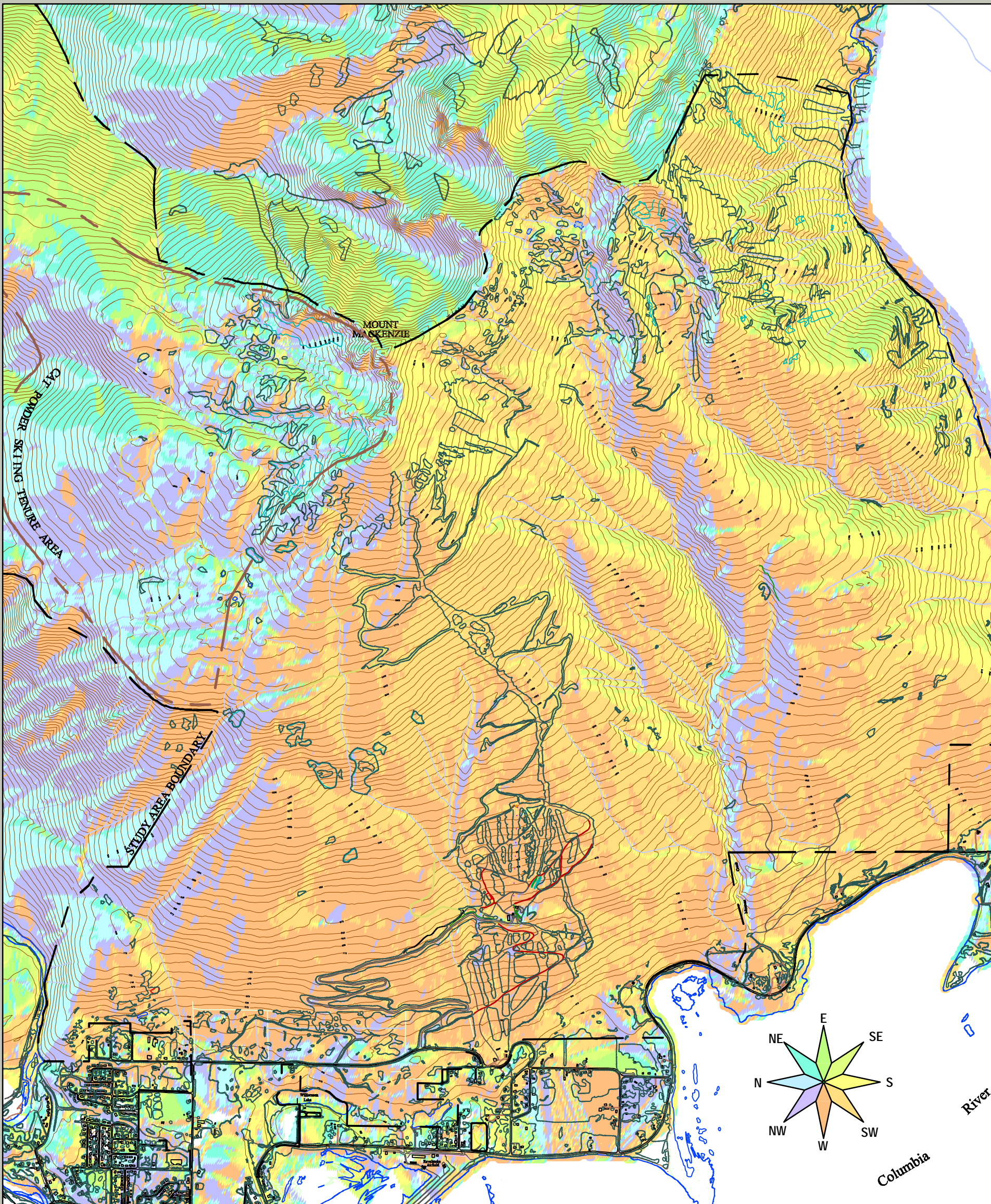


F. SLOPE ASPECT ANALYSIS

Slope aspects are categorized according to the eight, cardinal directions of the compass. The prevailing characteristics for each of the eight exposures are as follows:

- ***North-facing*** - best for snow quality; minimal wind scour and sun exposure.
- ***Northeast-facing*** - best for snow quality; minimal wind scour and sun exposure.
- ***East-facing*** - good for snow quality; some wind scour; morning sun exposure.
- ***Southeast-facing*** - fair for snow quality; moderate wind scour; morning and early afternoon sun exposure.
- ***South-facing*** - inferior for snow quality; moderate wind scour; full sun exposure.
- ***Southwest-facing*** - inferior for snow quality; high wind scour; full sun exposure.
- ***West-facing*** - fair for snow quality; high wind scour; late morning and afternoon sun exposure.
- ***Northwest-facing*** - good for snow quality; high wind scour; afternoon sun exposure.

Mt. Mackenzie is characterized by terrain with widely differing slope aspect. As depicted in Figure II-5, the majority of the study area's terrain faces west and southwest – often times the least desirable aspect for snow quality and retention. However, Mt. Mackenzie's latitude and weather systems create frequent cold temperatures, which make for good-quality snow conditions over a large majority of the mountain. The exception to this is the lower elevations (below 800 metres), where machine-made snow will likely be necessary to augment the natural snow pack. A benefit of Mt. Mackenzie's southerly orientation is that guests will enjoy full sun exposure while skiing, thus creating a more comfortable recreational experience in the typically cold outdoor temperatures.



SLOPE ASPECT ANALYSIS
Figure II-5

Mt. Mackenzie Mountain Master Plan

December, 2003

PREPARED FOR:

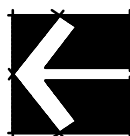
REVELSTOKE ALPINE
VILLAGE, INC.

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G. CLIMATOLOGICAL ANALYSIS

Winter temperatures on Mt. Mackenzie are generally good for development of a winter sports facility, in terms of maintaining a snow surface of consistently good quality and quantity, while encouraging outdoor, recreational activities. Above the 1,200-metre elevation, temperatures remain below freezing, there is a consistently abundant snow pack, and snow conditions are of a very high quality from late November through mid-May. Between the 1,200- and 800-metre elevations, temperatures remain below freezing throughout a majority of the winter season, which preserves the snow quality. Below the 800-metre elevation, temperatures often rise above freezing, which degrades the quality of the snow pack for skiing. However, the higher temperatures at lower elevations are beneficial for village development because of decreased snow removal costs and more comfortable conditions for outdoor activities in the village area. As a result of these two general, elevational temperature zones, a majority of the ski development on Mt. Mackenzie should occur above the 800-metre elevation.

A majority of the site is well protected by surrounding mountain ranges from prevailing, westerly winds. However, Mt. Mackenzie's summit ridge is frequently exposed to strong winds, which strip the snow cover and would be detrimental to lift and facility operations. Therefore, proposed lift alignments, mountain buildings, and ski terrain should avoid the mountain's highest elevations. The dense tree cover below the 2,100-metre elevation (6,890-foot elevation) provides additional protection from intermittent winds that are common to the lower elevations.

Based upon research conducted by RRL of data from the Revelstoke Weather Station, the natural snow pack is abundant above the 1,200-metre elevation – typically greater than five metres – from the end of December through the end of the ski season. According to City of Revelstoke documents, average snow pack near the mountain summit is nearly ten metres. The research shows that between 800 and 1,200 metres in elevation, the snow pack usually ranges from four to five metres throughout the season, except during some years when mild temperatures extend above the 800-metre elevation more frequently than is typical. Below the 800-metre elevation, the snow pack is inconsistent and will require augmentation by machine-made snow to ensure sufficient snow depth from the end of November through April.

In summary, the climatic conditions at Mt. Mackenzie are ideal for resort development. Temperatures, exposure, and wind conditions on the mountain combine to create ambient

conditions that are conducive to outdoor recreation. Relatively mild conditions in the base area are advantageous for village development. Historical records show that the natural snow pack on the upper elevations of Mt. Mackenzie is abundant for support of alpine skiing. Only the bottom 300 metres (17 percent) of the resort will require machine-made snow to augment the natural snow cover.

H. MOUNTAIN OPPORTUNITIES AND CONSTRAINTS

A Site Analysis plan was created for the 2000 Mount Mackenzie Resort: Mountain and Base Area Concept Plans (Figure 2.6). This graphic presented the various mountain opportunities and constraints. The Site Analysis plan delineated the gross areas compatible with ski area development and base lands/village development, and forms the basis for determining the base lands development area and the mountain development program used in this master plan.

III. DESIGN GUIDELINES

A. INTRODUCTION

The upgrading and expansion of a ski area is influenced by a variety of ski facility design criteria that help to create a quality ski experience. This section will briefly discuss these factors as they apply to Mt. Mackenzie.

B. LIFT NETWORK DESIGN

Lift alignments should be oriented to take maximum advantage of the terrain while creating a complete area interconnection. In accordance with CASP Guidelines, ski lifts should be aligned to serve the available ski terrain in the most efficient manner possible, while taking the following factors into consideration:

- Create a balance between uphill lift capacity and downhill terrain capacity.
- Attempt to avoid areas that are adversely affected by prevailing and storm winds.
- Provide sufficient out-of-base staging capacity that will prevent long, morning lift-lines.
- Align lifts to create enjoyable repeat skiing opportunities while satisfying access and circulation requirements.
- Orient lifts to optimize skiing for each of the six skier ability levels (beginner through expert).
- Locate lift terminals on flat sites that are of sufficient size to accommodate the terminal structure, circulation and milling space, lift line mazes, and loading/off-loading space.
- Locate lift terminals on terrain where the following design features can be met: 1) provide a 0 to 1 percent slope down from the maze area to the lower lift terminal loading platform; and 2) provide a 5 to 10 percent slope down from the upper lift terminal unload platform to the surrounding milling area.

Additionally, it should be understood that the vertical rise and length of ski lifts for a particular mountain are the primary measures of overall attractiveness and marketability of a ski area.

C. SKI TERRAIN

The following points summarize the salient features for a successful trail network.

- The natural configuration of the land should be utilized to its greatest potential to support the optimum capacity of the site, while creating a pleasurable skiing experience.
- A variety of slopes, ranging in gradient from 10 to 80 percent, should be incorporated into the trail network in order to provide a distribution of terrain (by ability levels) that matches the skier market profile as closely as possible.
- The ski trail alignments should allow a variety of trail widths, which will be designed in response to topographic conditions, the calibre of skier for whom they are intended, exposure to the sun and prevailing wind currents.
- A network of skiways ideally should be designed to allow the novice level skier to travel throughout the ski area. The network of skiways makes it possible to ski from any point on the mountain back to the base area, without the need to ride a lift. Lower ability trails should not be accessed by trails with higher ability classifications.
- The trail layout should be designed to minimize cross-traffic occurrences and bottleneck convergence zones.
- The trail network should be configured to follow the natural fall-line, thus creating trails that are more enjoyable to ski.
- The ski trails should be aligned to avoid potential avalanche hazards or be located in areas where known slide hazards can be controlled.

D. SKI TERRAIN CAPACITY

Ski terrain capacity is a function of the acceptable, skiers-per-hectare density ratio, which is rated by skier skill class. These density figures account for the skiers that are actually populating the ski trails and do not account for other guests, who are either waiting in lift lines, are riding the lifts, or are using the milling areas and support facilities.

The range of acceptable densities for the ski trails by skill class is summarized below. Typically, urban ski areas will fall within the high end of this range and destination areas will be at the low end.

Mt. Mackenzie Mountain Master Plan

Table III-1

Skier Density Ratios by Ability Level

Ability Level	CASP Guidelines For Skier Density Ratios
Beginner	35 – 75 Skiers/hectare
Novice	30 – 60 Skiers/hectare
Low Intermediate	20 – 50 Skiers/hectare
Intermediate	15 – 35 Skiers/hectare
Advanced Intermediate	10 – 25 Skiers/hectare
Expert	5 – 15 Skiers/hectare

Source: CASP GUIDELINES

E. SKIER SKILL CLASS

The skier marketplace is divided into skill classes ranging from beginner to expert. The following gradients should be used to determine the skier ability level of the mountain terrain:

Mt. Mackenzie Mountain Master Plan

Table III-2

Acceptable Terrain Gradients

Ability Level	CASP Guidelines for Slope Gradient
Beginner	8 to 12%
Novice	to 25% (short pitches to 30%)
Low Intermediate	to 30% (short pitches to 35%)
Intermediate	to 40% (short pitches to 45%)
Advanced Intermediate	to 50% (short pitches to 55%)
Expert	over 50% (maximum of 80%)

Source: CASP GUIDELINES

The ability level distribution of the developed ski trails (as defined by the skier capacity for each skill level) should generally match the distribution within the skier marketplace, accounting for the type of ski area in question (urban, regional, regional/destination, destination). The CASP Guidelines skill level distribution outlined below reflects the destination-oriented marketplace's expectations for resorts in Western Canada. The design criteria used by SE GROUP are based on recent trends that indicate lower percentages of advanced and expert skiers in the market place.

Mt. Mackenzie Mountain Master Plan

Table III-3
Ability Level Distribution of the Marketplace

Ability Level	SE GROUP Guidelines For Ability Level Distribution	CASP Guidelines For Ability Level Distribution
Beginner	5 percent	2 – 6 percent
Novice	15 percent	11 – 15 percent
Low Intermediate	25 percent	18 – 22 percent
Intermediate	35 percent	33 – 37 percent
Advanced Intermediate	15 percent	18 – 22 percent
Expert	5 percent	8 – 12 percent

Source: SE GROUP, CASP GUIDELINES

F. VERTICAL DEMAND

Vertical demand is a critical parameter for calculating a resort's aggregate daily lift capacity (which is used to define a resort's "Comfortable Carrying Capacity" as described below). The amount of vertical that the average skier is anticipated to ski over the course of a day increases as skier ability level increases. The vertical demand is estimated on a lift-by-lift basis and can be calculated as a function of the skiers' "round-trip interval" on each lift. Round-trip interval is the amount of time it takes to make one complete circuit on a lift (i.e., waiting in the lift line, riding the lift, and then skiing one run). The amount of time it takes to make one round-trip is used to determine the total number of runs that can be made over the course of the day, which is then multiplied by the total vertical of the lift to derive the total vertical demand. For example, if the round-trip interval on a lift is estimated to be 30 minutes, and the average skier is actively skiing for five hours over the course of the day, then that skier will complete ten runs (two runs per hour over five hours). If the lift has a vertical rise of 300 metres, then the skier will consume 3,000 metres over the course of the day (ten runs at 300 metres per run).

The CASP Guidelines acceptable range of vertical demand values are outlined below, by skier skill class.

Mt. Mackenzie Mountain Master Plan

**Table III-4
Vertical Demand by Skier Ability Level**

Ability Level	SE GROUP Guidelines For Vertical Demand	CASP Guidelines For Vertical Demand
Beginner	1,000 metres	500 – 750 metres
Novice	2,500 metres	750 – 1,500 metres
Low Intermediate	4,000 metres	1,500 – 2,250 metres
Intermediate	5,000 metres	2,250 – 3,000 metres
Advanced Intermediate	8,500 metres	3,000 – 5,500 metres
Expert	10,000 metres	5,500 – 7,500 metres

Source: SE GROUP, CASP GUIDELINES

SE GROUP's guidelines for vertical demand are higher than the CASP Guidelines to account for ski areas – like Mt. Mackenzie – that have higher than average vertical rise for a given length. This allows skiers to consume a higher than average amount of vertical per day. The higher numbers also account for ski areas that keep lift lines at a minimum, allowing for more runs per hour and more vertical skied. A higher vertical demand results in a lower Comfortable Carrying Capacity. Therefore, using a higher vertical demand will result in less crowded conditions.

G. WEIGHTED VERTICAL DEMAND

To determine the weighted vertical demand, all trails serviced by each lift are inventoried and the vertical demand for each lift is weighted by percentage of ability levels served.

H. COMFORTABLE CARRYING CAPACITY (CCC)

By definition, Comfortable Carrying Capacity (CCC) is the optimum number of guests accommodated by a mountain facility, at any one time, which affords a high-quality recreational experience and helps ensure sound stewardship of the land. In essence, CCC is a daily guest population, which is serviceable by the resort (i.e., an attendance level where operations remain functional and optimal). CCC is calculated based upon a resort's daily lift capacity. Once the CCC is calculated (based upon the proposed lift network), other resort facilities are sized to create a balance with the CCC. If certain components of the proposed development can not be balanced with the CCC (e.g., parking lots, resort access, utilities infrastructure, real estate development, etc.) due to physical, environmental, and/or economic constraints, then the lift network and CCC must be down-sized to account for identified limitations. In summary, CCC is a *planning parameter* that is used as the basis for designing a balanced resort development. The

CCC should not be considered as an absolute figure that defines or limits resort visitation but should be considered a dynamic number.

The CCC for each lift system is calculated using the following formula:

$$\text{CCC} = \frac{\text{Vertical Rise of the lift} \times \text{Hourly Capacity of the lift} \times \text{Operating Hours of the lift} \times \text{Loading Efficiency of the lift}}{\text{Weighted Vertical Demand of the ski trails associated with the lift}}$$

The resort CCC is the sum of the CCC calculations of each lift system.

I. SKIERS AT ONE TIME (SAOT)

At any one time, the aggregate skier population is dispersed throughout the resort, either at guest services buildings and milling areas, waiting in lift mazes, riding lifts, or skiing on the trails. SAOT represents the proportion of skiers that will be using the trail network at any given time, based upon the CCC calculation. Once the SAOT is estimated, it can be compared to the estimated *capacity* of the ski terrain to determine if a sufficient amount of terrain has been proposed to balance trail capacity with the SAOT.

Of the total skier population, 15 to 40 percent of each lift's capacity will be using guest service facilities or milling areas at any one time (i.e., over the course of the day, skiers will be actively skiing 60 to 85 percent of the time – the equivalent of 4 to 6 hours). Thus 15 to 40 percent of the skier population is the resort's inactive population. The remaining 60 to 85 percent of visitors at the resort make up the active skier population who are either in lift lines, on lifts, or on trails. As set forth in the CASP Guidelines, 25 to 60 percent of the resort's active skier population will be on the slopes while the remaining skiers will be riding the lifts or waiting in lift lines. The number of skiers waiting in line at each lift is a function of the uphill hourly capacity of the lift and the assumed length of wait time at each lift. The number of guests riding on each lift is the product of the number of carriers on the uphill line and the capacity of the lift's carriers. The remainder of the skier/snowboarder population (i.e., the CCC minus the number of guests using guest facilities, milling in areas near the resort portals, waiting in lift mazes, and actually riding lifts) is assumed to be skiing.

J. ADDITIONAL GUESTS

In addition to skiing guests, there are typically guests who use the mountain's guest service facilities but do not ski. For example, parents may bring their children to the mountain, and spend the day in the lodge reading or watching the children ski. These additional guests must be accommodated for when determining guest service space that they may utilize during the day (e.g., restaurant seating, rest room, retail). As a ratio of the CCC, the number of additional guests can be estimated as follows:

Mt. Mackenzie Mountain Master Plan
Table III-5
Additional Guests Multipliers

Type of Ski Area	CASP Guidelines For Additional Guests
Community	1.00 – 1.05
Urban	1.10 – 1.25
Regional	1.05 – 1.10
Regional/Destination	1.10 – 1.20
Destination	1.10 – 1.25

Source: CASP Guidelines

At Mt. Mackenzie it is assumed that these non-skiing guests using the mountain facilities equate to an additional 15 percent of the CCC, based on CASP Guidelines for Regional/Destination and Destination areas.

K. BUILDINGS

Particular consideration should be given to the relationship of the base area to the mountain facilities. Upon arrival at the ski area, skiers should be able to move directly from parking, through ticketing or rentals, to the base of the lifts. Walking distance and vertical differential between the base area facilities and lifts should be minimized, or mechanically assisted, in an effort to move skiers directly onto the mountain. Vehicle, pedestrian, and skier circulation should be coordinated to create an organized and pleasant base area experience.

Guest service facilities should be sized as a function of the mountain CCC. The amount of guest service space in square metres per CCC is as follows:

Mt. Mackenzie Mountain Master Plan

Table III-6
Space Use Multipliers

Type of Ski Area	CASP Guidelines For Space Use
Community	0.4 – 0.6
Urban	1.0 – 1.3
Regional	0.8 – 1.0
Regional/Destination	1.0 – 1.2
Destination	1.5 – 1.8

Source: CASP Guidelines

At Mt. Mackenzie the proposed guest service space ranges between 1.30 – 1.59 square metres per CCC, based on CASP Guidelines for Regional/Destination and Destination areas.

The CCC is distributed between facilities according to specific guest service needs:

Skier Staging Distribution – This number represents the distribution of the total number of skiers (CCC) between the guest service facilities where guests can access the mountain at the beginning of their day (known as base area portals). This number is used to determine the amount of guest service space needed for staging functions (e.g., tickets, rentals). At Mt. Mackenzie all skiing guests stage out of the Lower Village, the Upper Village or the South base area (Lift 4).

All Guests Staging Distribution – This is similar to skier staging, but includes additional guests who use the mountain facilities but do not ski. This number is used to determine the amount of guest service space needed for functions that may be used by both skiing and non-skiing guests throughout the day (e.g., retail, restaurant seating, rest rooms). At Mt. Mackenzie it is assumed that these non-skiing guests equate to an additional 15 percent of the CCC. All non-skiing guest services – as part of the mountain facilities – are located in the Lower Village and the Upper Village.

Ski School Operations Distribution – This number represents the distribution of the total number of skiers (CCC) between the guest service facilities that provide ski school services. This number is used to determine the amount of guest service space needed for ski school functions (e.g., reservations desk, instructor lockers). At Mt. Mackenzie all ski school activities stage out of the Lower Village and the Upper Village. In addition, a ski school desk will be located in the Mid-mountain Day Lodge and the Montana Creek restaurant, where ski school classes will meet.

Lunch Distribution – This number represents the distribution of the total number of skiers and non-skiers between the guest service facilities where guests can have lunch. This

number is used to determine the amount of guest service space needed for food service functions (e.g., restaurant seating, kitchen/scramble). At Mt. Mackenzie guests may have lunch in the Lower Village, the Upper Village, the Mid-mountain Day Lodge, the Mountain Top restaurant, or the Montana Creek restaurant.

Administration/Employee Distribution – This number represents the distribution of the total number of skiers and non-skiers between the guest service facilities. This number is used to determine the amount of administration and employee space needed in all guest service locations. At Mt. Mackenzie all administrative and employee space is located in the Lower Village and the Upper Village.

L. BALANCE OF FACILITIES

The mountain master planning process emphasizes the importance of balancing recreational facility development. The size of the skier service functions must be matched to the CCC of the mountain. The future development of a ski area should be designed and coordinated to maintain a balance between skier demand, ski area capacity (lifts and trails), and the supporting equipment and facilities (e.g., grooming machines, day lodge services and facilities, utility infrastructure, access, and parking).

IV. MOUNTAIN MASTER PLAN

A. SUMMARY OF MOUNTAIN FACILITIES

The mountain development will occur entirely on Crown lands, with the exception of short portions of the mountain egress trails, which traverse across private lands to the base area. Of the 5,100-hectare (12,600-acre) Mt. Mackenzie study area, approximately 2,600 hectares (6,400 acres) are required for establishment of the proposed ski area. Total skiable area is estimated to be between 1,500 and 2,000 hectares. The 110 developed ski trails proposed in this master plan account for a total of 665 hectares (1,643 acres). The remaining terrain is made up of open bowls, glades and tree skiing areas. The remaining Mt. Mackenzie study area will be used for real estate development, other resort recreational amenities (e.g., trail networks, Nordic skiing, backcountry hiking/skiing, etc.), and the northern sector will be preserved for future ski development.

Proposed lifts include one 2-stage, enclosed gondola, one cabriolet gondola, eight detachable chairlifts, three fixed grip quad chairlifts, six fixed grip triple chairlifts, and one surface lift. The proposed lift system will provide a total vertical drop of approximately 1,846 metres (6,056 feet) and will support a comfortable carrying capacity of 17,050 skiers.

In addition to alpine skiing, the mountain development area will be used for Nordic skiing and snowshoeing in the winter, and lift rides, hiking, interpretive trails, site-seeing, mountain biking, horseback riding, dining, festivals and events, etc. during the summer. Trail networks include loops at the top of the gondola (1,700-metre bench), taking advantage of the gentle slopes and scenic views of the Columbia River Valley and surrounding mountain ranges. These trails will be staged from the Mid-mountain Day Lodge at the top of the gondola (Lift 2/5). In addition, more challenging routes are provided up and down the mountain, taking advantage of the existing mountain work roads and the snowcat road network. These trails may be used for hiking, horseback trail riding, and mountain biking. The on-mountain routes are connected to a multi-use trail, which accesses the village and all residential areas.

At full build-out (after 20 to 30 years, as market demand dictates) ski-related guest services will be provided in three locations at or near the base of the mountain. The Lower Village commercial core will include between 8,700 and 11,000 sq. m. of skier services space, and 800

restaurant seats will be available for skiers. Skier services at the Upper Village will be provided in a 4,200 to 5,300 sq. m. day lodge. A total of 1,233 restaurant seats will be located at the Upper Village, in the day lodge as well as in the resort hotel. A small staging area, providing tickets, rentals, rest rooms, and day skier parking, will be located at the South base area, adjacent to the lower terminal of Lift 4.

There will also be three on-mountain lodges, the Mid-mountain Day Lodge, the Mountain Top restaurant and the Montana Creek restaurant. The Mid-mountain Day Lodge will include 1,762 restaurant seats, rest rooms, retail, and a ski school registration desk, and will be between 4,200 and 5,300 sq. m. The Mountain Top restaurant will include 954 restaurant seats, rest rooms, and retail, and will be between 2,400 and 3,000 sq. m. The Montana Creek restaurant will include a 968-seat restaurant, rest rooms, retail, and a ski school registration desk, and will be between 2,200 and 2,700 sq. m.

Mt. Mackenzie will have four on-mountain ski patrol facilities. The ski patrol headquarters will be located at the Mountain Top restaurant. Duty stations will be located near the upper terminals of Lift 18, Lift 19, and Lift 14. There will be first aid facilities located in the Lower Village, the Upper Village and the Mid-mountain Day Lodge.

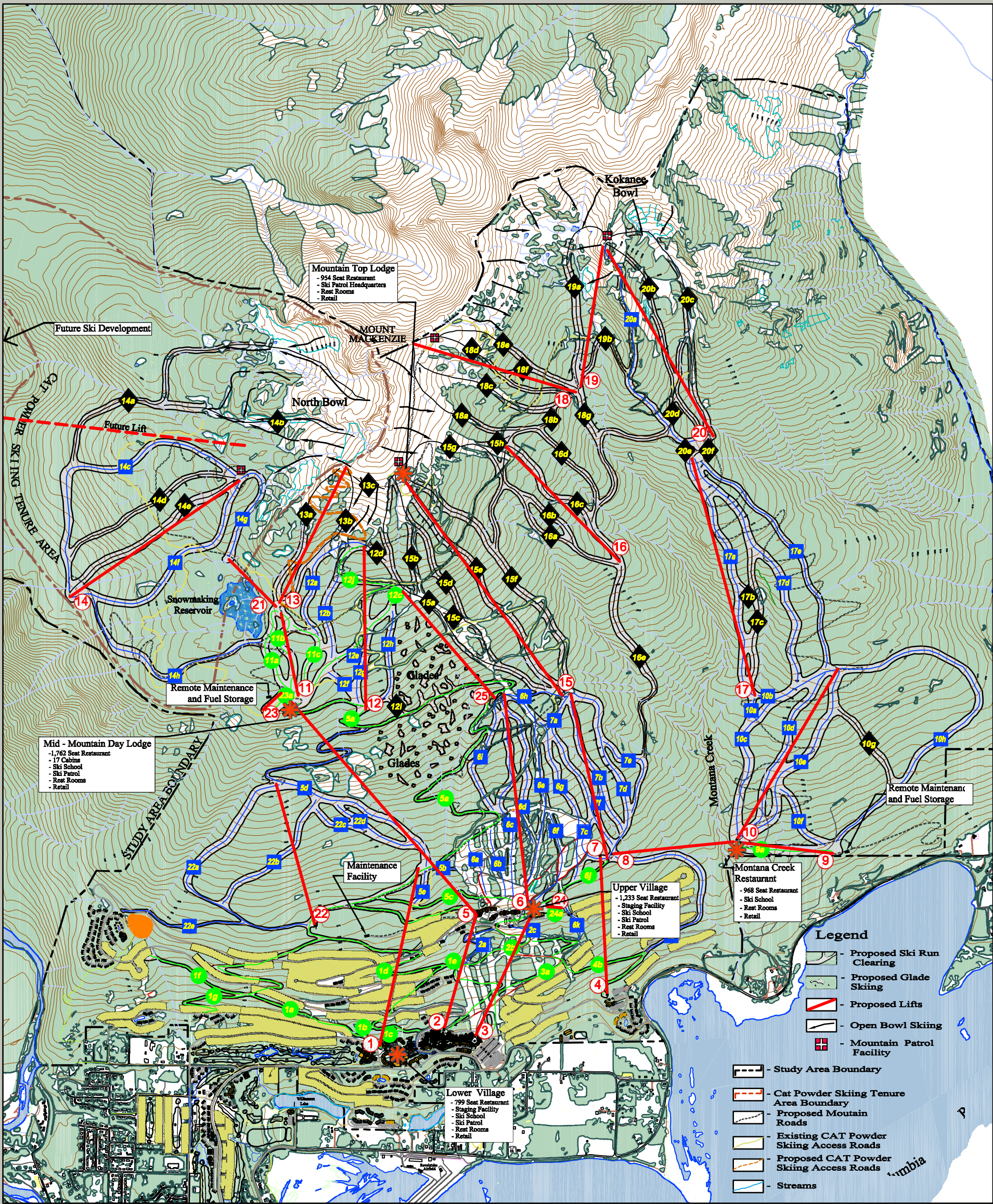
The build-out plan for Mt. Mackenzie's snowmaking system provides coverage for approximately 120 hectares of alpine terrain. The emphasis of the snowmaking program will be coverage for all low elevation trails (below 800 metres) that return to the resort village, coverage for popular trails between elevations 800 metres and 1,400 metres, and coverage for one run that provides a return route from 1,700 metres elevation.

Mt. Mackenzie's central mountain maintenance facility (1,000 sq. m.) is located near the base of Lift 22 (see Figure IV-1), a location with all weather road access and snow frontage. In addition, 550 sq. m. on-mountain maintenance facilities and remote fuel storage depots will be located near the Mid-mountain Day Lodge and near the lower terminal of Lift 9. These on-mountain facilities will minimize the travel time for grooming vehicles to reach the extensive trail network.

Installation and maintenance of most of the lift terminals and all of the on-mountain guest service facilities at Mt. Mackenzie will necessitate the construction of access routes. A total of 1.7 km of existing logging/mining roads will be improved and used for construction and on-

going maintenance. A total of 4.0 km of existing snowcat roads will be improved and used for construction and on-going maintenance. In addition, 38.3 km of new mountain work roads will be created; 15.6 km of these proposed roads will be along proposed skiways.

The Mountain Master Plan (Figure IV-1) was generated from 1:5,000 scale topographic mapping with a 5-metre contour interval.



MOUNTAIN MASTER PLAN
 Figure IV-1

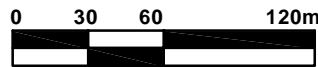
Mt. Mackenzie Mountain Master Plan

December, 2003

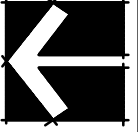
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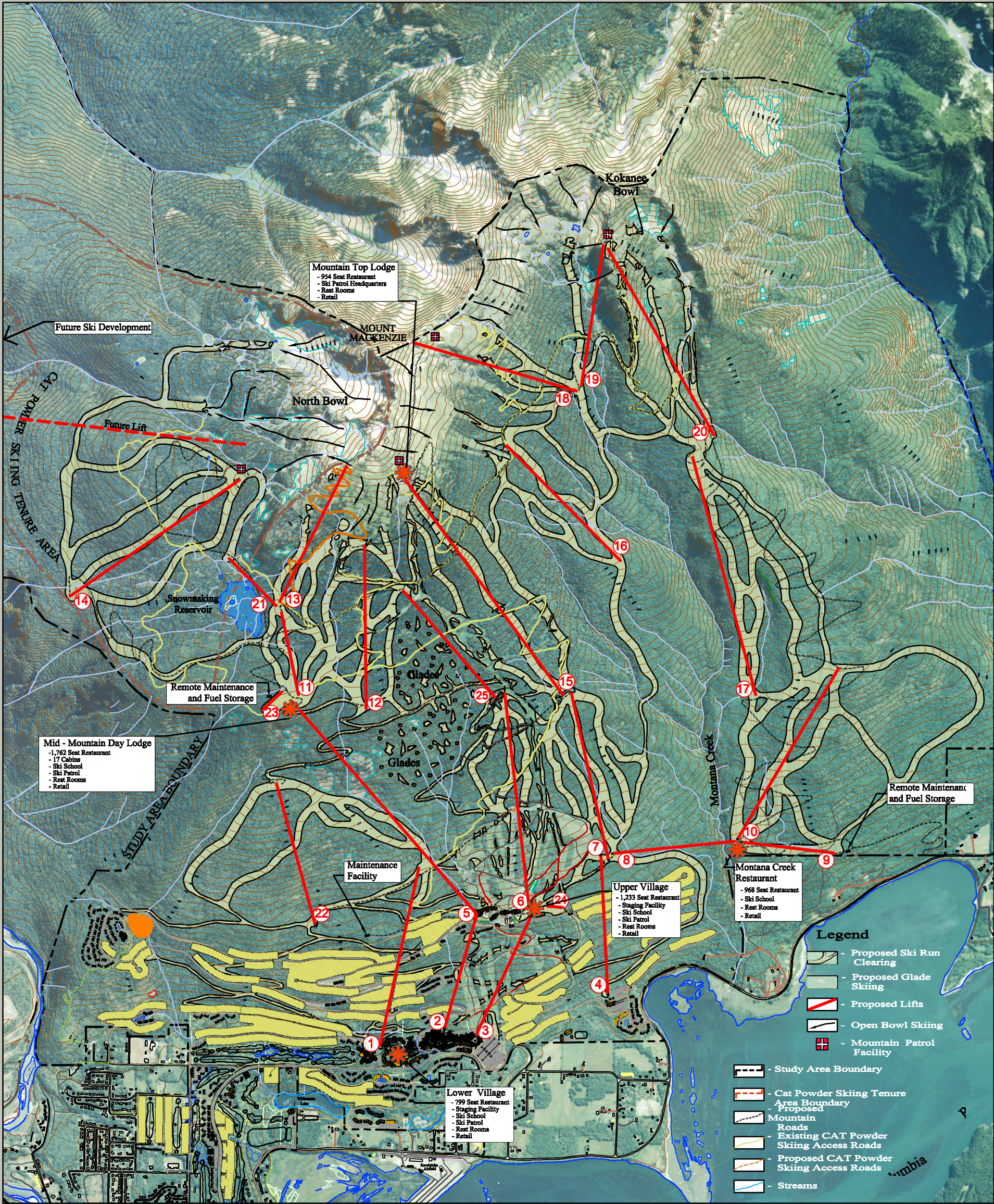
REVELSTOKE ALPINE
 VILLAGE, INC.

PREPARED BY:



Scale = 1:30,000m
 25 m Contour Interval





MOUNTAIN MASTER PLAN
Figure IV-1a

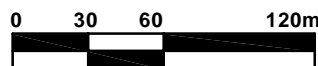
Mt. Mackenzie Mountain Master Plan

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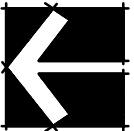
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25 m Contour Interval



B. ALPINE SKIING AND SNOWBOARDING

1. Lifts

The proposed lift alignments have been oriented to take maximum advantage of the terrain while creating a complete area interconnection. In accordance with CASP guidelines, the ski lifts have been aligned to serve the available ski terrain in the most efficient manner possible, while taking the following factors into consideration:

- Create a balance between uphill lift capacity and downhill terrain capacity.
- Attempt to avoid areas that are adversely affected by prevailing and storm winds.
- Provide sufficient out-of-base staging capacity that will prevent long, morning lift-lines.
- Align lifts to create enjoyable repeat skiing opportunities while satisfying access and circulation requirements.
- Orient lifts to optimize skiing for each of the six skier ability levels (beginner through expert).
- Locate lift terminals on flat sites that are of sufficient size to accommodate the terminal structure, circulation and milling space, lift line mazes, and loading/off-loading space.
- Locate lift terminals on terrain where the following design features can be met: 1) provide a 0 to 1 percent slope down from the maze area to the lower lift terminal loading platform; and 2) provide a 5 to 10 percent slope down from the upper lift terminal unload platform to the surrounding milling area.

Following are the preliminary lift specifications of the conceptual lift network layout illustrated on the Mountain Master Plan.

Mt. Mackenzie Mountain Master Plan

**Table IV-1
Lift Specifications**

Map Reference	Lift Type	Top Elev. (m.)	Bot. Elev. (m.)	Vert. Rise (m.)	Horiz. Length (m.)	Slope Length (m.)	Avg. Grade (%)	Actual Capacity (persons/hr.)
1	DC6	903	521	382	1,124	1,198	34%	3,000
2	Gondola	790	530	260	900	950	29%	2,800
3	Cabriolet	780	513	267	910	961	29%	3,000
4	DC6	879	479	399	1,078	1,160	37%	2,800
5	Gondola	1,687	790	897	2,170	2,373	41%	2,800
6	DC6	1,374	783	591	1,652	1,765	36%	2,800
7	DC4	1,296	876	421	1,284	1,358	33%	2,800
8	C3	877	713	164	920	976	18%	1,800
9	C3	705	612	94	692	701	14%	1,800
10	DC4	1,128	714	414	1,496	1,559	28%	2,400
11	C3	1,834	1,691	143	638	662	22%	1,800
12	DC4	1,992	1,593	399	1,239	1,311	32%	2,800
13	C3	2,232	1,827	405	1,151	1,239	35%	1,200
14	DC4	1,961	1,487	473	1,565	1,650	30%	2,400
15	DC6	2,216	1,296	921	2,113	2,330	44%	2,800
16	C4	1,893	1,498	395	1,232	1,313	32%	1,800
17	DC4	1,649	1,016	633	1,867	1,993	34%	2,400
18	DC4	2,325	1,796	529	1,293	1,414	41%	2,400
19	C4	2,198	1,801	397	1,080	1,193	37%	1,500
20	DC4	2,182	1,603	579	1,631	1,746	36%	2,400
21	C3	1,829	1,766	63	506	513	12%	1,800
22	DC4	1,374	874	500	1,102	1,225	45%	2,400
23	C3	1,700	1,679	21	187	189	11%	1,000
24	Surface	790	781	9	120	120	8%	500
25	C4	1,825	1,374	451	996	1,093	45%	2,400

Source: SE GROUP

2. Alpine Terrain

A preliminary design for the developed ski trail network is illustrated on the Mountain Master Plan. The following points summarize the salient features of the conceptual trail network.

- The natural configuration of the land has been utilized to its greatest potential to support the optimum capacity of the site, while creating a pleasurable skiing experience.
- A variety of slopes, ranging in gradient from 10 to 80 percent, have been incorporated into the trail network in order to provide a distribution of terrain (by ability levels) that matches the skier market profile as closely as possible.

- The ski trail alignments will allow a variety of trail widths which will be designed in response to topographic conditions, the calibre of skier for whom they are intended, and prevailing wind currents.
- A network of skiways allow the novice level skier to travel from the Lift 11 ski school area at the Mid-mountain Day Lodge to the base of the mountain.
- The trail layout has attempted to minimize cross-traffic occurrences and bottleneck convergence zones. However, one of the novice skiways (trail 5A) must cross two intermediate ski trails. In order to prevent potential cross-traffic conflicts, these skiway crossings will need to be mitigated (i.e., traffic calming banners, offset trail crossings, etc.).
- With the exception of the skiways described above, the trail network has been configured to follow the natural fall-line, thus creating trails that are more enjoyable to ski.
- The ski trails have been aligned to avoid potential avalanche hazards or have been located in areas where known slide hazards can be controlled.

The tables on the following pages outline the preliminary terrain specifications of the conceptual trail network layout illustrated on the Mountain Master Plan. The ski trail ability levels have been classified using the steepest 100-metre lineal section as the indicator. Following is a summary of the terrain specifications.

Mt. Mackenzie Mountain Master Plan
Table IV-2
Terrain Specifications Summary

Ability Level	Trail Area (ha.)	Terrain Breakdown
Beginner	3.2	0.5%
Novice	95.1	14.3%
Low Intermediate	94.8	14.2%
Intermediate	201.6	30.3%
Adv. Intermediate	168.0	25.2%
Expert	102.9	15.5%
Total:	665.6	100%

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-3

Terrain Specifications

Map Ref.	Top Elev. (m.)	Bottom Elev. (m.)	Vertical Drop (m.)	Horiz. Length (m.)	Slope Length (m.)	Avg. Width (m.)	Plan Area (ha)	Slope Area (ha.)	Avg. Grade (%)	Max. Grade (%)	Ability Level
1A	845	542	302	2,576	2,599	24.3	6.3	6.3	12%	19%	Novice
1B	570	522	48	235	241	24.0	0.6	0.6	20%	25%	Novice
1C	546	521	25	224	226	22.5	0.5	0.5	11%	13%	Novice
1D	903	526	377	3,173	3,203	27.5	8.7	8.8	12%	18%	Novice
1E	665	652	13	112	113	21.9	0.2	0.2	12%	15%	Novice
1F	734	647	87	791	797	24.6	1.9	2.0	11%	15%	Novice
1G	644	561	83	856	861	19.8	1.7	1.7	10%	11%	Novice
2A	767	655	112	625	639	30.8	1.9	2.0	18%	25%	Low Intermediate
2B	795	530	265	2,107	2,133	36.0	7.6	7.7	13%	25%	Novice
2C	780	721	59	221	232	47.5	1.1	1.1	27%	35%	Intermediate
3A	715	505	209	1,559	1,577	38.0	5.9	6.0	13%	21%	Novice
4A	872	480	392	2,047	2,097	41.0	8.4	8.6	19%	36%	Intermediate
5A	1,690	800	890	6,992	7,078	30.9	21.6	21.9	13%	25%	Novice
5B	969	946	23	201	203	23.0	0.5	0.5	11%	11%	Intermediate
5C	916	800	116	1,183	1,190	26.7	3.2	3.2	10%	12%	Novice
5D	1,545	979	565	2,866	2,950	44.7	12.8	13.2	20%	42%	Low Intermediate
5E	971	868	103	398	412	37.7	1.5	1.6	26%	30%	Low Intermediate
6A	1,015	839	175	434	472	94.4	4.1	4.5	40%	45%	Intermediate
6B	1,036	822	214	522	567	65.9	3.4	3.7	41%	44%	Intermediate
6C	1,344	817	527	1,494	1,590	60.6	9.1	9.6	35%	44%	Intermediate
6D	1,376	959	417	1,248	1,326	58.8	7.3	7.8	33%	43%	Intermediate
6E	1,359	803	556	1,693	1,789	61.4	10.4	11.0	33%	45%	Intermediate
6F	1,040	803	237	778	817	46.5	3.6	3.8	30%	45%	Intermediate
6G	1,268	842	426	1,280	1,354	60.8	7.8	8.2	33%	44%	Intermediate
6H	1,376	1,294	81	481	493	31.2	1.5	1.5	17%	28%	Low Intermediate
6I	1,376	1,090	286	954	1,008	53.5	5.1	5.4	30%	49%	Intermediate
6J	874	800	74	689	696	26.0	1.8	1.8	11%	20%	Novice
6K	807	675	132	378	404	40.0	1.5	1.6	35%	45%	Intermediate
7A	1,295	882	412	1,296	1,368	58.8	7.6	8.0	32%	49%	Intermediate
7B	1,288	905	383	1,079	1,146	58.0	6.3	6.6	36%	42%	Intermediate
7C	976	876	100	458	474	64.4	3.0	3.0	22%	39%	Intermediate
7D	1,297	875	422	1,480	1,552	61.0	9.0	9.5	28%	47%	Intermediate
7E	1,161	940	221	773	806	50.0	3.9	4.0	29%	36%	Intermediate
7F	1,041	983	58	197	206	37.3	0.7	0.8	29%	31%	Intermediate
9A	710	613	97	747	755	91.0	6.8	6.9	13%	20%	Novice
10A	1,013	972	41	182	187	48.0	0.9	0.9	23%	24%	Low Intermediate
10B	1,036	1,018	18	125	128	47.8	0.6	0.6	15%	26%	Low Intermediate
10C	1,128	716	411	1,697	1,753	73.6	12.5	12.9	24%	42%	Low Intermediate
10D	1,122	714	407	1,478	1,540	60.2	8.9	9.3	28%	38%	Intermediate
10E	1,126	715	411	1,590	1,656	73.2	11.6	12.1	26%	44%	Intermediate
10F	815	626	189	585	619	68.1	4.0	4.2	32%	44%	Intermediate

Mt. Mackenzie Mountain Master Plan

**Table IV-3
Terrain Specifications**

Map Ref.	Top Elev. (m.)	Bottom Elev. (m.)	Vertical Drop (m.)	Horiz. Length (m.)	Slope Length (m.)	Avg. Width (m.)	Plan Area (ha)	Slope Area (ha.)	Avg. Grade (%)	Max. Grade (%)	Ability Level
10G	1,024	707	317	748	815	57.6	4.3	4.7	42%	51%	Adv. Intermediate
10H	1,128	618	510	2,847	2,909	55.0	15.7	16.0	18%	42%	Low Intermediate
11A	1,830	1,705	125	737	755	60.2	4.4	4.5	17%	25%	Novice
11B	1,835	1,695	140	856	848	71.8	6.1	6.1	19%	24%	Novice
11C	1,814	1,690	124	711	722	53.9	3.8	3.9	13%	16%	Novice
12A	1,995	1,694	301	1,528	1,571	37.2	5.7	5.8	20%	35%	Low Intermediate
12B	1,929	1,730	199	658	689	65.8	4.3	4.5	30%	35%	Low Intermediate
12C	1,992	1,696	297	1,872	1,903	59.1	11.1	11.3	16%	24%	Novice
12D	1,998	1,955	43	177	183	65.4	1.2	1.2	25%	28%	Adv. Intermediate
12E	1,748	1,736	12	57	59	41.5	0.2	0.2	21%	26%	Low Intermediate
12F	1,700	1,642	57	224	232	66.5	1.5	1.5	26%	29%	Low Intermediate
12G	1,772	1,611	161	534	558	67.5	3.6	3.8	30%	34%	Low Intermediate
12H	1,812	1,597	215	825	859	52.8	4.4	4.5	26%	41%	Intermediate
12I	1,595	1,515	81	164	184	43.6	0.7	0.8	49%	50%	Adv. Intermediate
12J	1,848	1,787	61	360	366	48.4	1.7	1.8	17%	22%	Novice
13A	2,214	1,826	389	1,171	1,254	59.9	7.0	7.5	33%	60%	Expert
13B	2,232	1,829	403	1,212	1,297	60.2	7.3	7.8	33%	65%	Expert
13C	2,222	2,190	32	260	262	82.0	2.1	2.1	12%	13%	Adv. Intermediate
14A	2,166	1,668	498	2,967	3,072	55.5	16.5	17.1	17%	47%	Adv. Intermediate
14B	2,164	1,752	412	1,506	1,590	85.9	12.9	13.6	27%	45%	Adv. Intermediate
14C	1,951	1,494	457	2,358	2,420	57.8	13.6	14.0	19%	43%	Intermediate
14D	1,956	1,519	438	1,519	1,592	43.0	6.5	6.8	29%	51%	Adv. Intermediate
14E	1,959	1,494	464	1,570	1,651	63.2	9.9	10.4	30%	48%	Adv. Intermediate
14F	1,962	1,489	472	1,801	1,877	58.2	10.5	10.9	26%	45%	Intermediate
14G	1,958	1,768	190	838	864	59.5	5.0	5.1	23%	34%	Low Intermediate
14H	1,794	1,510	285	1,917	1,948	47.2	9.0	9.2	15%	31%	Low Intermediate
15A	2,219	1,319	900	2,312	2,501	57.6	13.3	14.4	39%	55%	Adv. Intermediate
15B	2,053	1,844	209	506	549	66.6	3.4	3.7	41%	45%	Adv. Intermediate
15C	1,727	1,659	67	147	162	61.2	0.9	1.0	46%	51%	Adv. Intermediate
15D	2,216	1,466	750	1,690	1,859	58.7	9.9	10.9	44%	62%	Expert
15E	2,162	1,296	866	2,033	2,235	63.8	13.0	14.3	43%	77%	Expert
15F	2,213	1,297	916	2,223	2,428	64.5	14.3	15.6	41%	59%	Expert
15G	2,216	1,770	447	1,633	1,715	62.0	10.1	10.6	27%	53%	Adv. Intermediate
15H	1,943	1,882	61	194	205	61.5	1.2	1.3	31%	34%	Adv. Intermediate
16A	1,895	1,496	399	1,389	1,464	45.0	6.2	6.6	29%	53%	Adv. Intermediate
16B	1,791	1,590	201	551	592	53.9	3.0	3.2	36%	53%	Adv. Intermediate
16C	1,889	1,499	390	1,280	1,355	62.8	8.0	8.5	30%	50%	Adv. Intermediate
16D	1,891	1,544	347	1,184	1,250	42.4	5.0	5.3	29%	52%	Adv. Intermediate
16E	1,487	1,043	443	1,640	1,736	48.6	8.0	8.4	27%	46%	Adv. Intermediate
17A	1,647	1,014	633	1,923	2,040	65.8	12.7	13.4	33%	45%	Intermediate
17B	1,324	1,260	65	144	159	55.8	0.8	0.9	45%	46%	Adv. Intermediate
17C	1,647	1,031	617	1,881	1,992	70.7	13.3	14.1	33%	57%	Expert

Mt. Mackenzie Mountain Master Plan

**Table IV-3
Terrain Specifications**

Map Ref.	Top Elev. (m.)	Bottom Elev. (m.)	Vertical Drop (m.)	Horiz. Length (m.)	Slope Length (m.)	Avg. Width (m.)	Plan Area (ha)	Slope Area (ha.)	Avg. Grade (%)	Max. Grade (%)	Ability Level
17D	1,424	1,094	329	1,167	1,227	56.6	6.6	6.9	28%	43%	Intermediate
17E	1,634	1,127	507	1,978	2,060	44.6	8.8	9.2	26%	35%	Low Intermediate
18A	2,306	1,872	433	1,188	1,283	55.8	6.6	7.2	36%	61%	Expert
18B	1,853	1,849	5	186	187	32.8	0.6	0.6	3%	3%	Expert
18C	2,266	1,796	470	1,343	1,442	57.5	7.7	8.3	35%	66%	Expert
18D	2,316	1,804	512	1,315	1,425	39.5	5.2	5.6	39%	58%	Expert
18E	2,247	1,800	447	1,180	1,278	50.7	6.0	6.5	38%	61%	Expert
18F	2,041	1,945	96	251	270	40.4	1.0	1.1	38%	41%	Expert
18G	1,794	1,658	136	371	398	35.0	1.3	1.4	37%	49%	Adv. Intermediate
19A	2,190	1,804	386	1,492	1,580	84.2	12.6	13.3	26%	52%	Adv. Intermediate
19B	1,914	1,806	109	668	683	36.6	2.4	2.5	16%	31%	Adv. Intermediate
20A	2,195	1,616	579	1,937	2,047	50.7	9.8	10.4	30%	44%	Intermediate
20B	2,195	1,615	580	1,728	1,839	42.0	7.3	7.7	34%	53%	Adv. Intermediate
20C	2,194	1,610	584	2,031	2,151	63.9	13.0	13.7	29%	47%	Adv. Intermediate
20D	1,848	1,549	298	1,891	1,953	41.7	7.9	8.1	16%	41%	Adv. Intermediate
20E	1,678	1,649	29	96	100	54.5	0.5	0.5	30%	36%	Adv. Intermediate
20F	1,649	1,608	41	203	209	51.4	1.0	1.1	20%	21%	Intermediate
22A	1,374	875	499	2,066	2,146	48.9	10.1	10.5	24%	48%	Intermediate
22B	1,280	965	315	1,121	1,169	55.5	6.2	6.5	28%	41%	Intermediate
22C	1,262	1,121	141	565	584	43.3	2.4	2.5	25%	33%	Low Intermediate
22D	1,244	1,061	183	676	701	58.2	3.9	4.1	27%	32%	Low Intermediate
22E	984	799	185	547	587	57.7	3.2	3.4	34%	56%	Expert
23A	1,701	1,678	22	217	219	103.2	2.2	2.3	10%	11%	Beginner
24A	789	781	8	117	118	80.3	0.9	0.9	7%	10%	Beginner
Total:				127,636		635.5		665.6			

Source: SE GROUP

3. Snowboarding and Terrain Parks

Nearly all modern ski resorts include terrain features and facilities that are designed specifically for snowboard riders and free riders. Due to the conceptual nature of the current planning exercise, the design of terrain parks and half pipes has not been completed for Mt. Mackenzie. However, the general slope characteristics and central location (near the Mid-mountain Day Lodge and Upper Village) of the terrain served by lifts 6 and 22 is ideal for development of snowboard and terrain parks. The upper-elevation bowls and off-piste terrain at Mt. Mackenzie will also be attractive to snowboard riders and free riders.

4. Ski Terrain Capacity

Ski terrain capacity is a function of the acceptable, skiers-per-hectare density ratio, which is rated by skier ability level. The skier densities that have been used for Mt. Mackenzie are lower than the CASP guidelines (as set forth below) because the majority of skiers at Mt. Mackenzie will be destination visitors who expect low density, uncrowded skiing. These density figures account for the skiers that are actually populating the ski trails and do not account for other guests, who are either waiting in lift lines, are riding the lifts, or are using the milling areas and support facilities. The last column in the following table indicates the Skier Density Ratio of guests distributed throughout the mountain facilities (i.e., including those guests that are waiting in lift lines, riding lifts or using milling areas and support facilities). The skier density ratios in this column are used to assess the balance between ski area capacity based on the amount of ski terrain and ski area capacity based on CCC.

Mt. Mackenzie Mountain Master Plan
Table IV-4
Skier Density Ratios by Ability Level

Ability Level	Mt. Mackenzie Design Criteria Skier Density Ratios (on slopes only)	CASP Guidelines Skier Density Ratios (on slopes only)	Mt. Mackenzie Design Criteria Skier Density Ratios (total ski area facility)
Beginner	20 Skiers/hectare	35 – 75 Skiers/hectare	50 Skiers/hectare
Novice	18 Skiers/hectare	30 – 60 Skiers/hectare	45 Skiers/hectare
Low Intermediate	14 Skiers/hectare	20 – 50 Skiers/hectare	35 Skiers/hectare
Intermediate	10 Skiers/hectare	15 – 35 Skiers/hectare	25 Skiers/hectare
Advanced Intermediate	7 Skiers/hectare	10 – 25 Skiers/hectare	17 Skiers/hectare
Expert	4 Skiers/hectare	5 – 15 Skiers/hectare	10 Skiers/hectare

Source: SE GROUP, CASP Guidelines

The following table shows that the trail design for Mt. Mackenzie has a terrain capacity of 6,706 skiers, on the slopes, at one time. (As discussed above, the overall ski area capacity includes the terrain capacity (6,706 skiers) as well as the number of skiers waiting in lift lines, riding the lifts, or using visitor service facilities and milling areas.) This *downhill* terrain capacity figure will be compared with the skiers at one time (SAOT) estimate made in Section B.9, which represents the proportion of skiers who are expected to be on the slopes at one time based upon the *uphill* capacity of the lifts. A balance between terrain capacity and SAOT represents a balance between uphill lift capacity and downhill terrain capacity.

Mt. Mackenzie Mountain Master Plan

**Table IV-5
Terrain Capacity**

Ability Level	Trail Area (ha.)	Skier/Rider Capacity (Skiers)
Beginner	3.2	64
Novice	95.1	1,712
Low Intermediate	94.8	1,327
Intermediate	201.6	2,016
Adv. Intermediate	168.0	1,176
Expert	102.9	411
Total:	665.6	6,706

Source: SE GROUP

5. Skier Skill Class

The skier marketplace is divided into skill classes ranging from beginner to expert. The ability level distribution of the developed ski trails (as defined by the skier capacity for each skill level) should generally match the distribution within the skier marketplace. The estimated skill level distribution for the Mt. Mackenzie marketplace is given below. This skill level distribution reflects the destination-oriented marketplace's expectations for resorts in Western Canada. The ability level distribution used by SE GROUP is based on recent trends that indicate lower percentages of advanced and expert skiers in the market place compared with the CASP Guidelines and higher percentages of novice and low intermediate skiers.

Mt. Mackenzie Mountain Master Plan

**Table IV-6
Estimated Ability Level Distribution of the Marketplace**

Ability Level	Estimated Ability Level Distribution For Mt. Mackenzie's Marketplace	CASP Guidelines For Ability Level Distribution
Beginner	5 percent	2 – 6 percent
Novice	15 percent	11 – 15 percent
Low Intermediate	25 percent	18 – 22 percent
Intermediate	35 percent	33 – 37 percent
Advanced Intermediate	15 percent	18 – 22 percent
Expert	5 percent	8 – 12 percent

Source: SE GROUP, CASP Guidelines

The results of the Skier Capacity Distribution have been normalized to account for an excess in novice terrain capacity. A portion of the novice terrain is made up of skiways returning to the Village real estate. These trails are used primarily for egress purposes only and not for repeat

skiing. Therefore, the ability distribution has been normalized to better reflect the ability distribution for repeat skiing.

Mt. Mackenzie Mountain Master Plan
Table IV-7
Skier Capacity Distribution by Ability Levels

Ability Level	Skier Capacity (skiers)	Skier Distribution (%)	Normalized Capacity (skiers)	Normalized Skier Distribution (%)	Skier Market Distribution (%)	Distribution per CASP Guidelines (%)
Beginner	160.5	1%	160.5	1%	5%	2 – 6%
Novice	4,278.7	26%	2,188.8	15%	15%	11 – 15%
Low Intermediate	3,316.3	20%	3,316.3	23%	25%	18 – 22%
Intermediate	5,041.2	30%	5,041.2	35%	35%	33 – 37%
Adv. Intermediate	2,856.6	17%	2,856.6	20%	15%	18 – 22%
Expert	1,028.6	6%	1,028.6	7%	5%	8 – 12%
Total:	16,682	100%	14,592	100%	100%	

Source: SE GROUP, CASP Guidelines

Mt. Mackenzie Mountain Master Plan
Chart IV-1
Terrain Distribution by Ability Levels

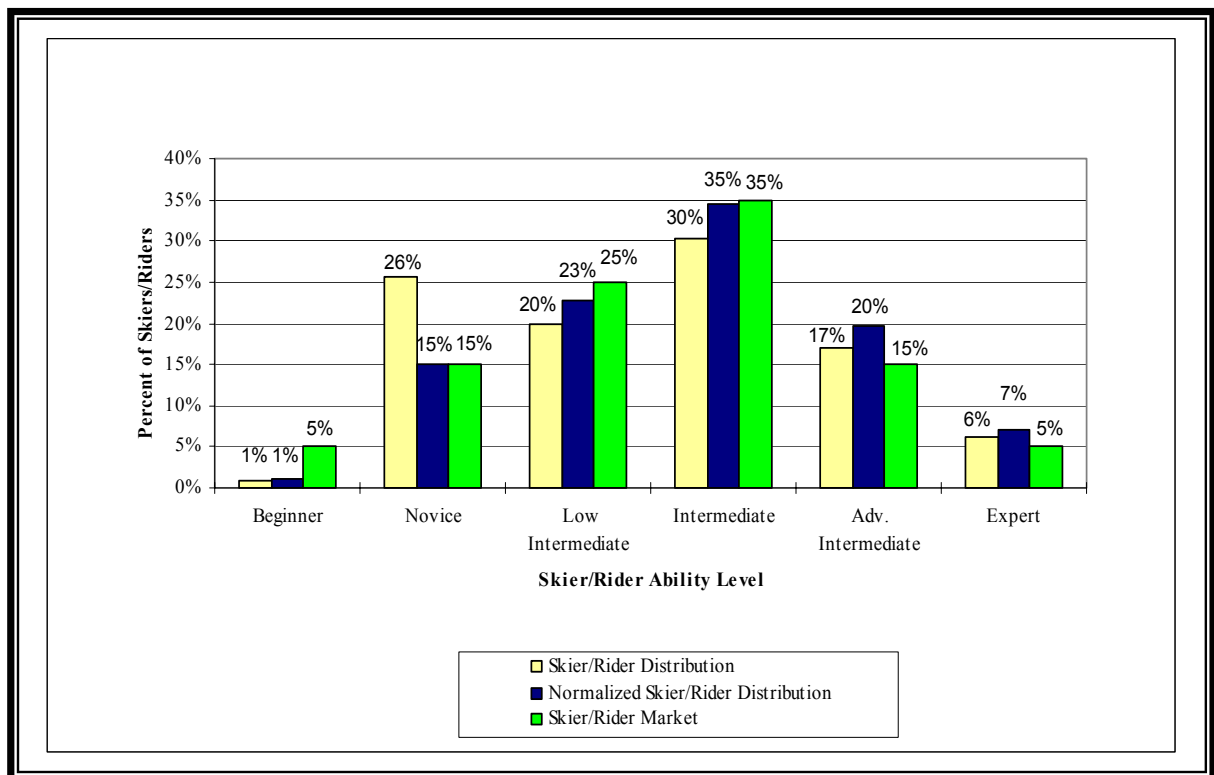


Table IV-7 and Chart IV-1 illustrate that the proposed trail design for Mt. Mackenzie offers a variety of terrain that closely matches the current market distribution, which has changed since the development of the CASP Guidelines.

6. Vertical Demand

Vertical demand is a critical parameter for calculating a resort's aggregate daily lift capacity (which is used to define a resort's CCC as described in Section B.8). The amount of vertical that the average skier is anticipated to ski over the course of a day increases as skier ability level increases. The vertical demand is estimated on a lift-by-lift basis and can be calculated as a function of the skiers' "round-trip interval" on each lift. Round-trip interval is the amount of time it takes to make one complete circuit on a lift (i.e., waiting in the lift line, riding the lift, and then skiing one run). The amount of time it takes to make one round-trip is used to determine the total number of runs that can be made over the course of the day, which is then multiplied by the total vertical of the lift to derive the total vertical demand. For example, if the round-trip interval on a lift is estimated to be 30 minutes, and the average skier is actively skiing for five hours over the course of the day, then that skier will complete ten runs (two runs per hour over five hours). If the lift has a vertical rise of 300 metres, then the skier will consume 3,000 metres over the course of the day (ten runs at 300 metres per run).

The average vertical demand values used for the Mt. Mackenzie project are outlined below, by skier skill class.

Mt. Mackenzie Mountain Master Plan
Table IV-8
Vertical Demand by Skier Ability Level

Ability Level	Mt. Mackenzie Design Criteria For Vertical Demand	CASP Guidelines For Vertical Demand
Beginner	1,000 metres	500 – 750 metres
Novice	2,500 metres	750 – 1,500 metres
Low Intermediate	4,000 metres	1,500 – 2,250 metres
Intermediate	5,000 metres	2,250 – 3,000 metres
Advanced Intermediate	8,500 metres	3,000 – 5,500 metres
Expert	10,000 metres	5,500 – 7,500 metres

Source: SE GROUP, CASP Guidelines

The vertical demand figures used for Mt. Mackenzie are higher than the values set forth in the CASP guidelines. This is because most of the proposed lifts at Mt. Mackenzie have higher than

average vertical rise for a given length, allowing skiers to consume a higher than average amount of vertical per day. Additionally, a goal of management is to keep lift lines at a minimum. This has the effect of increasing vertical demand (i.e., shorter lift lines equates to more runs per hour and more vertical skied).

It should be noted that a higher vertical demand results in a lower CCC. Therefore, using a higher vertical demand will result in less crowded conditions at Mt. Mackenzie.

7. Weighted Vertical Demand

The trails serviced by each lift have been inventoried and the vertical demand for each lift has been weighted by percentage of ability levels served. The following table is an example of how weighted vertical demand has been calculated for each lift at Mt. Mackenzie, using Lift 12 as the example.

Mt. Mackenzie Mountain Master Plan
Table IV-9
Weighted Vertical Demand for Lift 12

Ability Level	Area (Ha.)	Trail Capacity	Percentage Use	Vertical Demand	Weighted Demand
Beginner	0.0	0	0%	1,000	0
Novice	17.8	800	53%	2,500	1,328
Low Intermediate	15.9	557	37%	4,000	1,482
Intermediate	4.5	113	8%	5,000	377
Advanced Intermediate	2.0	34	2%	8,500	192
Expert	0.0	0	0%	10,000	0
Total	40.3	1,505	100%		3,379

Source: SE GROUP

8. Comfortable Carrying Capacity (CCC)

By definition, CCC is the optimum number of guests accommodated by a mountain resort, at any one time, which affords a high-quality recreational experience and helps ensure sound stewardship of the land. In essence, CCC is a daily guest population, which is serviceable by the resort (i.e., an attendance level where operations remain functional and optimal). CCC is calculated based upon a resort's daily lift capacity. Once the CCC is calculated (based upon the proposed lift network), other resort facilities are sized to create a balance with the CCC. If certain components of the proposed development can not be balanced with the CCC (e.g., parking lots, resort access, utilities infrastructure, real estate development, etc.) due to physical,

environmental, and/or economic constraints, then the lift network and CCC must be down-sized to account for identified limitations. In summary, CCC is a *planning parameter* that is used as the basis for designing a balanced resort development. The CCC should not be considered as an absolute figure that defines or limits resort visitation but should be considered a dynamic number.

The CCC for each lift system is calculated using the following formula:

$$\text{CCC} = \frac{\text{Vertical Rise of the lift} \times \text{Hourly Capacity of the lift} \times \text{Operating Hours of the lift} \times \text{Loading Efficiency of the lift}}{\text{Weighted Vertical Demand of the ski trails associated with the lift}}$$

The resort CCC is the sum of the CCC calculations of each lift system. The following table outlines the CCC calculation for the proposed lift network, using assumed hourly lift capacities.

Mt. Mackenzie Mountain Master Plan

**Table IV-10
Calculation of CCC**

Map Ref.	Slope Length (m)	Vert. Rise (m)	Hourly Capacity (persons/hr.)	Oper. Hours (hrs.)	Up-Mtn. Access Role (%)	Misloading Lift Stop (%)	Adjusted Hourly Capacity (persons/hr.)	VTM/Day (000)	Weighted Vertical Demand (m./day)	CCC (Skiers)
1	1,198	382	3,000	7.00	75	10	450	1,203	2,500	480
2	950	260	2,800	7.00	100	0	-	0	0	-
3	961	267	3,000	7.00	75	5	600	1,120	2,742	410
4	1,160	399	2,800	7.00	85	10	140	391	5,000	80
5	2,373	897	2,800	7.00	75	20	140	879	3,394	260
6	1,765	591	2,800	7.00	10	10	2,240	9,271	4,295	2,160
7	1,358	421	2,800	7.00	5	5	2,520	7,420	5,166	1,440
8	976	164	1,800	7.00	100	0	-	0	0	-
9	701	94	1,800	6.50	0	15	1,530	931	2,500	370
10	1,559	414	2,400	6.80	10	5	2,040	5,746	4,560	1,260
11	662	143	1,800	6.50	5	15	1,440	1,342	2,500	540
12	1,311	399	2,800	6.80	5	5	2,520	6,829	3,379	2,020
13	1,239	405	1,200	6.50	0	10	1,080	2,841	9,010	320
14	1,650	173	2,400	6.00	0	5	2,280	6,473	5,857	1,110
15	2,330	921	2,800	6.80	50	10	1,120	7,012	8,520	820
16	1,313	395	1,800	6.50	50	10	720	1,847	8,500	220
17	1,993	633	2,400	6.50	5	5	2,160	8,885	5,441	1,630
18	1,414	529	2,400	6.25	0	5	2,280	7,537	9,947	760
19	1,193	397	1,500	6.00	0	5	1,425	3,392	7,934	430
20	1,746	579	2,400	6.25	0	5	2,280	8,253	7,403	1,110
21	513	63	1,800	6.50	100	0	-	0	0	-
22	1,225	500	2,400	6.80	15	5	1,920	6,527	4,423	1,480
23	189	21	1,000	6.00	0	10	900	116	1,000	120
24	120	9	500	6.00	0	5	475	26	1,000	30
25	1,093	451	2,400	6.00	100	0	-	0	0	-
Total:	29,899		53,200				30,260	88,041		17,050

Source: SE GROUP

As illustrated in the CCC Calculation table, the proposed mountain master plan could support a potential CCC of about 17,050 guests.

9. Skiers At One Time (SAOT)

At any one time, the aggregate skier population is dispersed throughout the resort, either at guest services buildings and milling areas, waiting in lift mazes, riding lifts, or skiing on the trails. SAOT represents the proportion of skiers that will be using the trail network at any given time,

based upon the CCC calculation. Once the SAOT is estimated, it can be compared to the estimated *capacity* of the ski terrain (as determined in Section B.4) to determine if a sufficient amount of terrain has been proposed to balance trail capacity with the SAOT.

Of the total skier population, 15 to 40 percent of each lift's capacity will be using guest service facilities or milling areas at any one time (i.e., over the course of the day, skiers will be actively skiing 60 to 85 percent of the time – the equivalent of 4 to 6 hours). This 15 to 40 percent of the skier population is the resort's inactive population.

The remaining 60 to 85 percent of visitors at the resort make up the active skier population who are either in lift lines, on lifts, or on trails. As set forth in the CASP guidelines, 25 to 60 percent of the resort's active skier population will be on the slopes while the remaining skiers will be riding the lifts or waiting in lift lines. The number of skiers waiting in line at each lift is a function of the uphill hourly capacity of the lift and the assumed length of wait time at each lift. (For purposes of master planning, lift lines at Mt. Mackenzie have been estimated to range from one to twelve minutes.) The number of guests riding on each lift is the product of the number of carriers on the uphill line and the capacity of the lift's carriers. The remainder of the skier/snowboarder population (i.e., the CCC minus the number of guests using guest facilities, milling in areas near the resort portals, waiting in lift mazes, and actually riding lifts) is assumed to be enjoying downhill descents.

Based upon an estimated CCC of 17,050 guests, the estimated disbursement of Mt. Mackenzie's skiers is illustrated in the following table.

Mt. Mackenzie Mountain Master Plan

Table IV-11

Disbursement of the Skier Population

Lift Number	Daily Capacity (CCC)	Disbursement of Skier/Rider Population			
		Support Fac./Milling (Skiers)	Lift Lines (Skiers)	On Lift (Skiers)	SAOT (Skiers On Trails)
1	480	120	4	29	327
2	0	0	0	0	0
3	410	103	5	32	270
4	80	20	7	9	44
5	260	65	35	18	142
6	2,160	540	560	216	844
7	1,440	360	315	187	578
8	0	0	0	0	0
9	370	93	13	146	118
10	1,260	315	255	174	516
11	540	135	48	130	227
12	2,020	505	546	181	788
13	320	80	9	147	84
14	1,110	278	190	206	436
15	820	205	79	143	393
16	220	55	12	104	49
17	1,630	408	360	235	627
18	760	190	114	176	280
19	430	108	12	186	124
20	1,110	278	190	218	424
21	0	0	0	0	0
22	1,480	370	480	128	502
23	120	30	15	23	52
24	30	8	0	13	9
Total:	17,050	4,266	3,249	2,701	6,834

This table shows that of the total 17,050 CCC, 6,834 skiers (40 percent) are anticipated to be on the ski trails at one time (a proportion that falls within the 25 to 60 percent range set forth in the CASP guidelines). As calculated in Section B.4, the proposed trail network has an estimated skier *capacity* of 6,706 skiers at one time. This illustrates a near-perfect balance between trail capacity and SAOT.

C. FOUR-SEASON RECREATION FACILITIES

Four-season recreation facilities will be provided on the mountain and throughout the base lands. The following discussion focuses on recreation provided on-mountain; for additional detail on base lands recreation facilities please refer to Volume 4 (Resort Base Master Plan).

It is important that the resort lands and facilities be utilized in an efficient and balanced sense throughout the year. A major summer component of the Mt. Mackenzie Master Plan is an 18-hole golf course located to the north of the resort core. The golf course has been located so that it can be conveniently staged from the village and so that it is within walking distance of most accommodations and the public parking lot. Other potential activities which would be staged from the village include: tennis; swimming pool; health club; indoor, recreation center; summer and winter, multi-use recreational trails; sleigh rides; ice skating; snowplay; tubing; tobogganing; dining; fishing; interpretive centers; shopping; festivals and events; etc. Off-site activities that will be staged from the village include: white-water rafting; heli-skiing and heli-hiking; snowcat skiing; boating; shopping and dining in Revelstoke; etc. These various activities will help draw guests to Mt. Mackenzie on a year-round basis.

On the mountain, the Controlled Recreation Area will be used for alpine skiing, Nordic skiing and snowshoeing in the winter, and lift rides, hiking, interpretive trails, site-seeing, mountain biking, horseback riding, dining, festivals and events, etc. in the summer. Trail networks include loops at the top of the gondola (1,700-metre bench), taking advantage of the gentle slopes and scenic views of the Columbia River Valley and surrounding mountain ranges. These trails will be staged from the Mid-mountain Day Lodge at the top of the gondola (Lift 2/5). In addition, more challenging routes are provided up and down the mountain, taking advantage of the existing mountain work roads and the snowcat road network. These trails may be used for hiking, horseback trail riding, and mountain biking. The on-mountain routes are connected to a multi-use trail, which accesses the village and all residential areas.



Mt. Mackenzie Mountain Master Plan

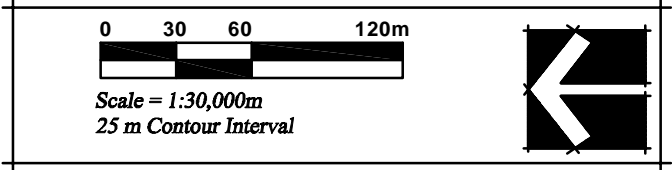
December, 2003

RECREATION TRAILS
Figure IV-2

PREPARED FOR:
REVELSTOKE ALPINE
VILLAGE, INC.

PREPARED BY:

SE GROUP®



D. RESORT CARRYING CAPACITY

In addition to the guests using ski area facilities at Mt. Mackenzie, there will be a number of guests visiting the resort that do not use the ski area facilities. At Mt. Mackenzie it is assumed that these guests not using the mountain facilities equate to an additional 25 percent of the CCC, based on CASP Guidelines for Regional/Destination and Destination areas. Accordingly, the overall Resort Carrying Capacity is 21,300 (125 percent of CCC).

E. GUEST FACILITIES

The Mt. Mackenzie development will cater to regional/destination and destination guests, as defined in the CASP Guidelines. Initially, the market will come from a combination of regional and destination sources, but as the resort matures, the destination market is predicted to strengthen. Consequently, the size and scale of services and facilities has been planned to accommodate both regional/destination and destination guests. Facilities will also be provided for day-use guests.

1. Parking

Parking for the ski area will be provided for two types of users: overnight guests who are staying at the resort, and day-use guests. Overnight guests will be provided parking adjacent to their accommodation either in structured (most commonly underground) or surface parking. Day-use guests at the mountain will be provided surface parking at the Lower Village and the South base area.

The resort is anticipating the need to accommodate approximately 4,500 skiers in day-use parking lots. Other mountain-user guests (as many as 15,108) will arrive either from their on-site accommodations by walking or shuttle bus, via coach bus or other form of mass transportation, or will arrive from nearby Revelstoke by shuttle bus.

According to CASP Guidelines (average car occupancy is 2.8 to 3 people per car), a total of 1,500 parking spaces will be provided for the estimated 4,500 skiers arriving by car. 1,000 spaces will be provided at the Lower Village; the remaining 500 spaces will be provided in at the South base area.

Employee parking will be provided throughout the resort, including the maintenance facility, golf clubhouse, campground and equestrian center parking areas.

A summary of parking requirements for the ski area is provided below.

Mt. Mackenzie Mountain Master Plan
Table IV-12
Parking Requirements Summary

	Multiplier	Total
CCC + other guests	15%	19,608
# of guests arriving from off-site	40%	7,843
# of guests arriving by car	57%	4,500
# of guests arriving via off-site bus service	43%	3,343
# of employees arriving by car	40%	545
Required guest car parking spaces	3.00	1,500
Required employee car parking spaces	3.00	182

Source: SE GROUP

2. Skier Services Space Use Recommendations

Guest service space requirements for the mountain facilities are a function of the CCC. Space for mountain-user guests have been sized to address needs such as ticket sales, restaurant/cafeteria space, rental shop, ski school, retail, etc. The resort will have approximately 22,978 to 28,751 square metres of space for skier services (1.3 – 1.63 metres per guest), which meets CASP Guidelines.

Guest services will be provided in five main locations: Lower Village, Upper Village, Mid-mountain Day Lodge, Mountain Top restaurant, and Montana Creek restaurant. In addition, ticket sales and rest room facilities will be located at the base of Lift 4 (South base area), for day use guests parking in the adjacent lots, and for the convenience of guests staying in the surrounding ski to/ski from real estate. All staging facilities (tickets/guest services, rental shop, lockers, etc.) will be provided adjacent to lift loading zones at the village and day skier base area locations. Due to the expansive nature of the resort, with its immense vertical drop, restaurants,

rest rooms, retail and ski patrol functions will be located at the three on-mountain locations². Ski school desks will be located at the Mid-mountain Day Lodge and Montana Creek restaurant.

The recommended sizes of all guest services and operations functions for Mt. Mackenzie, by location, are shown in Table IV-13. Guest service facilities are sized as a function of the full build-out CCC. In addition to the CCC, the mountain's guest service facilities have been sized to account for non-skiing guests. It is estimated that an additional 15 percent of the CCC will be non-skiing guests. At Mt. Mackenzie the proposed guest service space ranges between 1.30-1.63 square metres per CCC, based on CASP Guidelines for Regional/Destination and Destination areas.

² The ski patrol duty station associated with the Mid-mountain Day Lodge is located adjacent to the upper terminal of Lift 14. The duty station associated with the Montana Creek restaurant is located adjacent to the upper terminal of Lift 19. There is an additional duty station at the intersection of trails 18d and 18e.

Mt. Mackenzie Mountain Master Plan
Table IV-13
Space Use Recommendations

Service Function	Recommended Ranges													
	Lower Village		Upper Village		South Base		Mid-mountain Day Lodge		Mountain Top Restaurant		Montana Creek Restaurant		Resort Total	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Ticket Sales/Guest Services	279	341	60	73	60	73	-	-	-	-	-	-	399	488
Public Lockers	828	1,012	177	217	177	217	-	-	-	-	-	-	1,183	1,446
Rentals/Repair	985	1,253	211	269	211	269	-	-	-	-	-	-	1,407	1,790
Retail Sales	575	703	180	220	45	55	34	41	34	41	34	41	902	1,102
Bar/lounge	1,021	1,247	272	333	68	83	-	-	-	-	-	-	1,361	1,663
Adult Ski School	385	470	64	78	32	39	128	157	-	-	32	39	641	784
Kid's Ski School	770	941	128	157	64	78	257	314	-	-	64	78	1,283	1,568
Restaurant Seating	772	943	1,389	1,697	55	67	1,985	2,427	1,075	1,314	1,036	1,266	6,312	7,714
Kitchen/Scramble	301	367	541	661	21	26	774	945	419	512	404	493	2,459	3,006
Rest rooms	170	208	307	375	182	222	438	536	237	290	241	294	1,575	1,925
Ski Patrol	157	192	125	153	-	-	63	77	282	345	-	-	627	767
Administration	811	992	90	110	-	-	-	-	-	-	-	-	902	1,102
Employee Lockers/Lounge	325	397	36	44	-	-	-	-	-	-	-	-	361	441
Mechanical	199	299	97	145	25	37	99	121	55	68	60	73	535	743
Storage	332	499	161	241	41	62	166	202	92	113	100	122	892	1,239
Circulation/Waste	797	1,197	387	579	99	149	397	486	221	270	239	292	2,140	2,973
TOTAL SQUARE METRES	8,706	11,062	4,226	5,353	1,080	1,378	4,341	5,306	2,416	2,953	2,209	2,700	22,978	28,751

Notes:

1. Mid-mountain Day Lodge: Ski patrol space = duty station located at top of Lift 14.
2. Mountain Top restaurant = Ski patrol headquarters. Also includes duty station located at top of lifts 19 and 20.
3. Ski patrol space at the Upper and Lower village, and the Mid-mountain Day Lodge, includes first aid.

Destination Space Use Requirements

In addition to the guest service space being developed for mountain facility users, an additional amount of space will be developed to accommodate non-skiing needs. These facilities will include restaurants, shops, and other services. This additional space – located within the Lower Village – will amount to an additional 20 to 40 percent of the space use recommendations outlined above as per CASP Guidelines. For additional information regarding this space refer to Volume 4 (Resort Base Master Plan).

3. Guest Service Seating

The following table utilizes the lunchtime distribution of the CCC to determine the number of food service seats recommended at the five guest service facilities.

Mt. Mackenzie Mountain Master Plan
Table IV-14
Seating Recommendations

	Lower Village	Upper Village	Mid-mountain Day Lodge	Mountain Top Restaurant	Montana Creek Restaurant	Total Resort
Lunchtime Capacity (CCC)	2,397	4,315	6,168	3,340	3,388	19,608
Average Seat Turnover	3	3.5	3.5	3.5	3.5	-
Required Seats	799	1,233	1,762	954	968	5,716

Source: SE GROUP

A key factor in evaluating restaurant capacity is the turnover rate of the seats. That is, the number of times a seat will be utilized in a day. Several factors influence the turnover rate including the ski resorts' climate, market orientation, and the type of food service provided. At Mt. Mackenzie a seat turnover rate of 3 has been utilized for the Lower Village, and 3.5 at the Upper Village facility, the Mid-mountain Day Lodge, the Mountain Top restaurant and the Montana Creek restaurant.

Outdoor seats are not considered for this analysis, as climatic conditions indicate that they cannot be used on a regular basis at Mt. Mackenzie. However, the ski area will provide a certain amount of outdoor seating for occasions when warmer temperatures prevail.

F. OPERATIONS FACILITIES

1. Ski Patrol and First Aid

To ensure prompt response to reported injuries, and to allow close monitoring of the resort's boundary with adjacent snowcat and helicopter skiing tenure areas, Mt. Mackenzie will have five on-mountain ski patrol facilities. The ski patrol headquarters will be located at the Mountain Top restaurant. Duty stations will be located at the top of Lift 14 and Lift 19, and near the top of Lift 18 at the intersection of trails 18d and 18e. These smaller facilities will be used principally for the storage of rescue and first aid equipment (e.g., toboggans, backboards, etc.), trail maintenance equipment (e.g., poles, ropes, fencing, closure signs, warning signs, etc.), and to house patrollers during periods of inclement weather (when the lifts are open). A first aid station will be located in the Mid-mountain Day Lodge.

Additionally, ski patrollers stationed in the headquarters and duty stations will monitor the summit ridge of Mt. Mackenzie (all access routes to the ridge are visible from one or more of the ski patrol stations) to prevent unauthorized travel of skiers outside of the resort boundary and into the preserved powder snow that lies within the tenure areas for snowcat skiing or helicopter skiing.

There will be first aid facilities located at the Lower Village and the Upper Village at Mt. Mackenzie. Upon arrival, the injured guest will receive outpatient medical care. A seriously injured guest will be transferred to a nearby hospital by ground or air ambulance service. The receiving medical facility will be determined by the nature of the injury, weather and road conditions, and/or patient preference. Mt. Mackenzie's clinical services will accommodate the number of guests anticipated at full build-out.

The patrol headquarters and each of the proposed duty stations will be equipped with telephone service to ensure communication with lift operators, as well as ski patrol personnel in the village and day skier base area.

2. Snowmaking

One of the most discussed variables in the ski industry is the weather. The amount and timing of natural snowfall, and the degree to which temperatures are cold enough for snowmaking, often dictate the overall success of a resort's winter operation. Compounding the weather risk is the fact that most resorts receive a significant portion of their wintertime visitation during a few, relatively short vacation periods – a factor that exerts extreme pressure on resorts to provide a quality snow product during those important holiday periods. Thus, snowmaking coverage for Mt. Mackenzie has been designed to ensure a reliable, high quality snow surface for key portions of the resort.

The following coverage objectives helped determine which trails to include in the snowmaking coverage strategy:

- During years of low natural snowfall, guarantee terrain in time for the *U.S. Thanksgiving holiday* (i.e., terrain appropriate for beginner through advanced levels).
- Provide snowmaking coverage for critical, connector and return trails.
- Provide snowmaking coverage (i.e., maintain acceptable trail surface conditions) for trail segments where high-use negatively impacts trail snow surfaces.
- Provide durable snow cover on trails and slopes where sun or wind exposure wears on the snowpack, or where trails have abnormal subsurface trail conditions.

The build-out plan for Mt. Mackenzie's snowmaking system provides coverage for approximately 120 hectares of alpine terrain. The emphasis of the snowmaking program will be coverage for all low elevation trails (below 800 metres) that return to the resort village, coverage for popular trails between elevations 800 metres and 1,400 metres, and coverage for one run that provides a return route from 1,700 metres elevation. In short, the proposed coverage strategy will help ensure a skiable product – during El Niño and other aberrations of weather – for the regions that are absolutely necessary for the operation of the resort. Trails that merit snowmaking coverage are summarized in Table IV-15. The proposed, resort-wide snowmaking plan is graphically depicted in Figure IV-3.

Mt. Mackenzie Mountain Master Plan

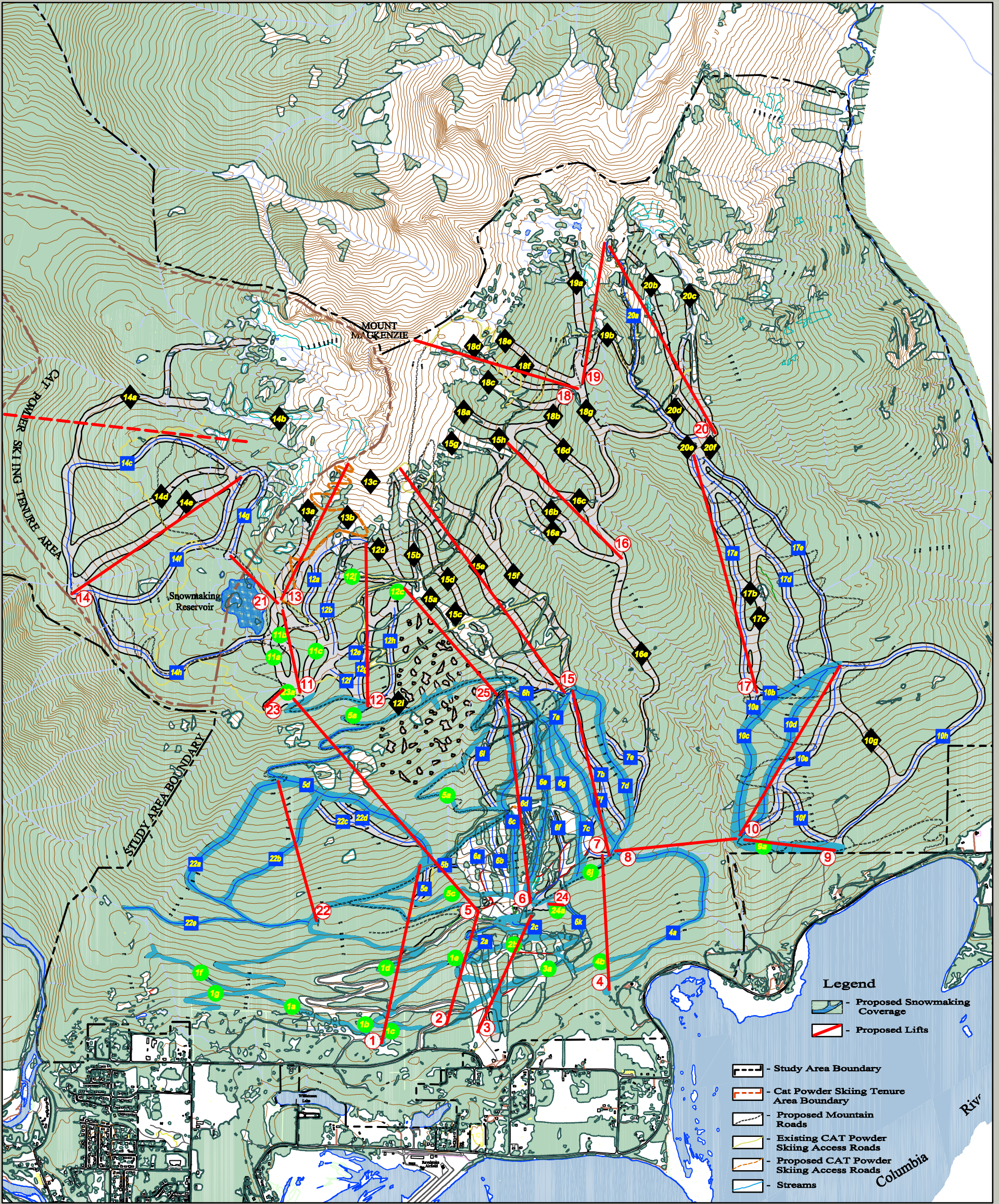
**Table IV-15
Snowmaking**

Map Ref	Plan Length (m)	Slope Length (m.)	Avg. Width (m)	Slope Area (hectares)	Skier/Rider Ability Level
1A	2,576	2,599	10.0	2.6	Novice
1B	235	241	10.0	0.2	Novice
1C	224	226	10.0	0.2	Novice
1D	3,173	3,203	10.0	3.2	Novice
1E	112	113	10.0	0.1	Novice
1F	791	797	10.0	0.8	Novice
1G	856	861	10.0	0.9	Novice
2A	625	639	15.0	1.0	Low Intermediate
2B	2,107	2,133	25.0	5.3	Novice
2C	221	232	20.0	0.5	Intermediate
3A	1,559	1,577	20.0	3.2	Novice
4A	2,047	2,097	35.0	7.3	Intermediate
5A	6,992	7,078	15.0	10.6	Novice
5C	1,183	1,190	10.0	1.2	Novice
5D	2,866	2,950	35.0	10.3	Low Intermediate
6C	1,494	1,590	45.0	7.2	Intermediate
6E	1,693	1,789	45.0	8.1	Intermediate
6G	1,280	1,354	45.0	6.1	Intermediate
6H	481	493	20.0	1.0	Low Intermediate
6J	689	696	15.0	1.0	Novice
7A	1,296	1,368	45.0	6.2	Intermediate
7D	1,480	1,552	45.0	7.0	Intermediate
9A	747	755	50.0	3.8	Novice
10C	1,697	1,753	45.0	7.9	Low Intermediate
10D	1,478	1,540	45.0	6.9	Intermediate
		42,847		122.3	

Source: SE GROUP

The source of Mt. Mackenzie's snowmaking water is discussed in Volume Five. With an average coverage depth of 0.75 metres, the total production requirement will be 900,000 cubic metres of snow per year. According to snowmaking engineers, 1.0 cubic metre of water will produce 1.86 cubic metres of snow; approximately 500,000 cubic metres of water will be required per year for snowmaking at Mt. Mackenzie.

Snowmaking for Phase 1 at Mt. Mackenzie will cover approximately 38 hectares of terrain, to an average coverage depth of 0.75 metres. Approximately 150,000 cubic metres of water will be required per year for Phase 1 snowmaking.



Mt. Mackenzie Mountain Master Plan

December, 2003

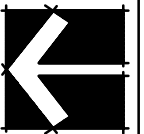
SNOWMAKING COVERAGE
Figure IV-3

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REVELSTOKE ALPINE
VILLAGE, INC.

PREPARED BY:

SE GROUP®

0 30 60 120m
Scale = 1:30,000m
25 m Contour Interval



3. Grooming

Mt. Mackenzie's trail network will consist of approximately 665 hectares of lift-served terrain. Mt. Mackenzie will maintain a routine grooming schedule, which calls for preparation of 100 percent of the resort's easiest terrain, and 50 percent of the most difficult terrain on a nightly basis. In accordance with this grooming parameter, the resort will strive to groom approximately 330.5 hectares of named trails on a nightly basis. In addition to the named trails, Mt. Mackenzie will regularly maintain the resort's terrain parks, a halfpipe, plus areas associated with lift ramps, maze areas, helicopter landings, access ramps, and other miscellaneous areas.

A grooming vehicle will on average be able to groom approximately 1.6 hectares per hour, or approximately 13 hectares over an eight-hour shift (given breaks, vehicle inspections, etc.). A winch-groomer is able to maintain an estimated 0.8 hectares per hour, or 6.5 hectares during an eight-hour shift.

Given these grooming parameters, and assuming two grooming shifts per night, Mt. Mackenzie must have 13 vehicles in the field on a regular basis, as demonstrated in Table IV-16.

Mt. Mackenzie Mountain Master Plan
Table IV-16
Upgraded Grooming Vehicle Requirements

Grooming Statistics Mt. Mackenzie	Grooming Assumptions/ Requirements
Regularly Groomed Terrain (hectares)	330.5
Grooming Rate (hectares per vehicle over two, 8-hour shifts)	26
Number of Grooming Vehicles Needed	13

Source: SE GROUP

4. Maintenance

Mt. Mackenzie's central mountain maintenance facility (1,000 sq. m.) is located near the base of Lift 22 (see Figure IV-1), a location with all weather road access and snow frontage. Equipped with 6 work bays, the maintenance facility will be used for vehicle maintenance and welding as well as lift maintenance.

In addition, a 550 sq. m. on-mountain maintenance facility will be located near the Mid-mountain Day Lodge, and another facility will be located at the base of Lift 9. These remote

maintenance facilities will be equipped with 4 work bays. The on-mountain facilities will minimize the travel time for grooming vehicles to reach the extensive trail network.

G. MOUNTAIN INFRASTRUCTURE CAPACITY REQUIREMENTS

1. Domestic Water

Given Mt. Mackenzie's full build-out scenario, the resort's mountain facilities will have a combined capacity – skiing guests and non-skiing guests – of 19,608 guests. Assuming a consumption factor of 26.5 litres per day (lpd) per guest, Mt. Mackenzie will require approximately 519,612 lpd – at full build-out. This water requirement is just for the guests who frequent the mountain facilities and mountain-related buildings (e.g., day lodges, the clinic, daycare facilities, ski patrol, etc.). It does not take into consideration the water requirements associated with proposed overnight accommodations, the proposed four season village (i.e., restaurants, bars, laundry services, etc.), or other resort users.

Table IV-17 summarizes the domestic water requirements at each of the guest service locations.

Mt. Mackenzie Mountain Master Plan

Table IV-17

Domestic Water Requirements

	Lower Village	Upper Village	South Base Area	Mid-mountain Restaurant	Montana Creek Restaurant	Total Resort
Lunchtime Capacity (CCC and 15% additional guests)	2,397	4,315	6,168	3,340	3,388	19,608
Litres per day (per guest)	26.5	26.5	26.5	26.5	26.5	
Total Requirement	63,520	114,348	163,452	88,510	89,782	519,612

Source: SE GROUP

For details on domestic water supply and distribution, refer to Volume 5.

2. Wastewater

At full build-out, Mt. Mackenzie's mountain facilities' wastewater flow will replicate the facility's domestic water consumption volume, estimated at 519,612 lpd. The 519,612 lpd estimate accounts for the flow associated with a peak day at the ski-related buildings only, and is not an estimate for the greater resort.

For details on wastewater collection and treatment, refer to Volume 5.

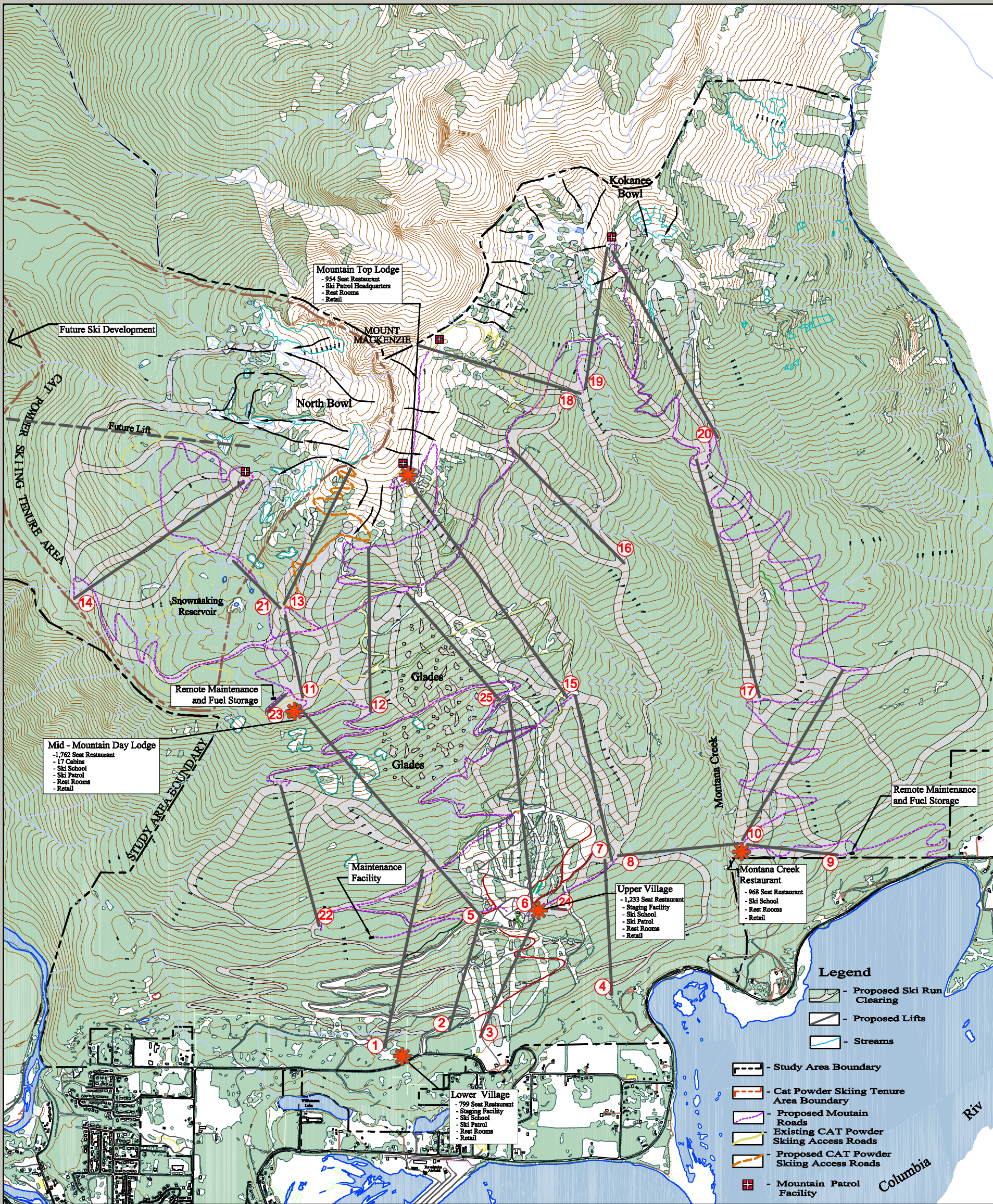
3. Power

For details regarding mountain power supply, refer to Volume 5.

4. Mountain Access Roads

Installation and maintenance of most of the lift terminals and all of the on-mountain guest service facilities at Mt. Mackenzie will necessitate the construction of access routes. These 5 metre wide access routes will provide rubber tire vehicular access to most lift terminals and all on-mountain structures, with the exception of the bottom terminal of Lift 16.

A total of 1.7 km of existing logging/mining roads will be improved and used for construction and on-going maintenance. A total of 4.0 km of existing snowcat roads will be improved and used for construction and on-going maintenance. In addition, 38.3 km of new mountain work roads will be created; 15.6 km of these proposed roads will be along proposed skiways (e.g., trails 5A, 6J, 12C, etc.). Refer to Figure IV-4 for the location of existing and proposed Mountain Access Roads.



MOUNTAIN ACCESS ROADS
Figure IV-4

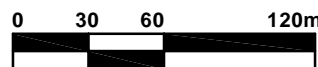
Mt. Mackenzie Mountain Master Plan

December, 2003

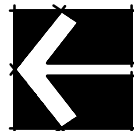
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VILLAGE, INC.

PREPARED BY:



Scale = 1:30,000m
25 m Contour Interval



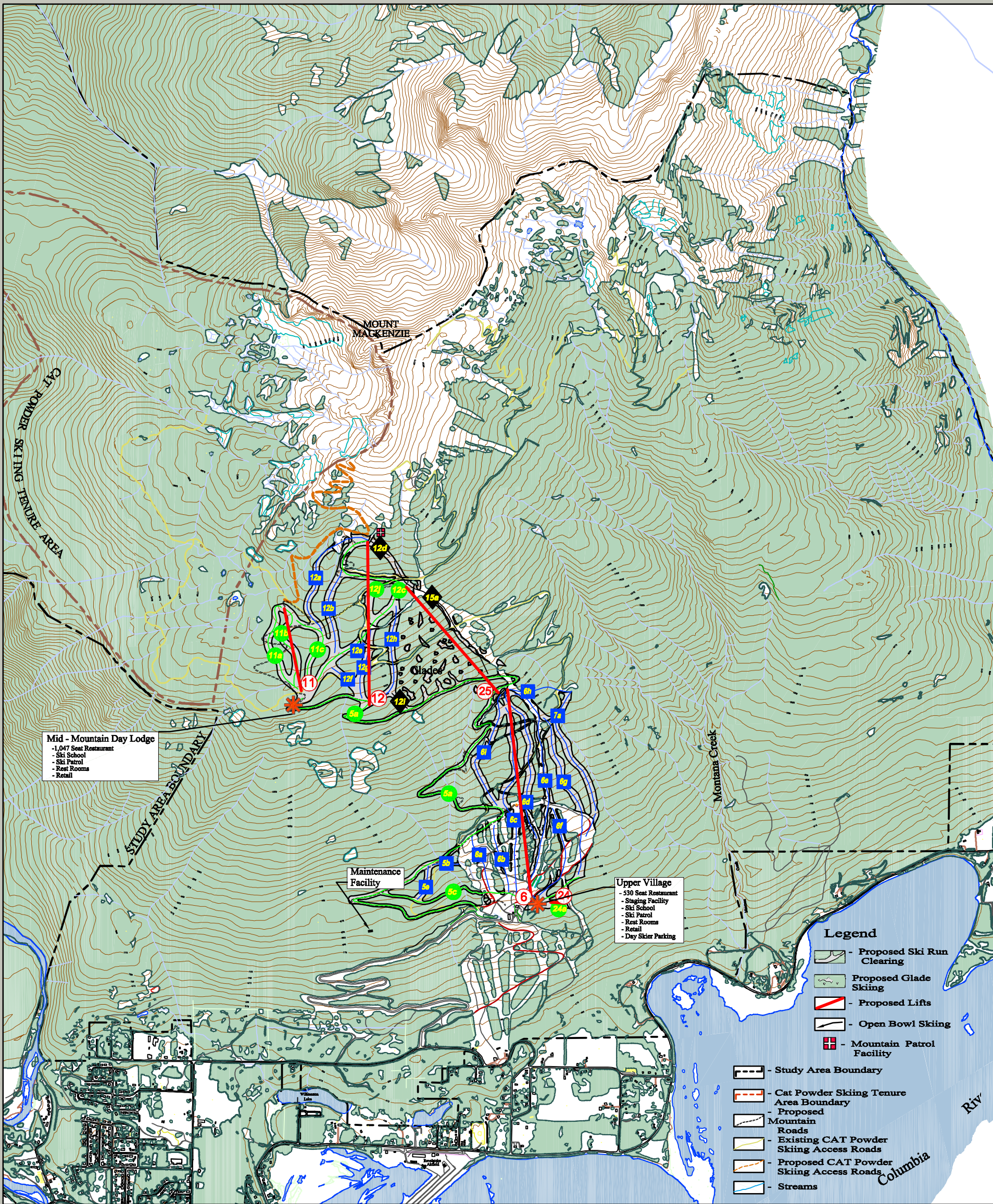
H. PHASED DEVELOPMENT PLAN

Throughout the development process, expansion of the resort must be carefully coordinated to maintain balance among skier demand and the mountain capacity (e.g., lifts and trails). In addition, the development plan must ensure that adequate support equipment and facilities (e.g., day lodge services and facilities, grooming machines, utility infrastructure, and parking) accompany the mountain development at each phase of construction. A carefully balanced mountain and support facility development program will ensure a sustainable resort operation – helping resort management safeguard the financial performance of Mt. Mackenzie.

The development schedule summarized in this section represents recommendations for implementation of the major alpine skiing facilities. It is anticipated that Mt. Mackenzie would be developed in three initial phases followed by longer-term build-out of the resort. This schedule is predicated upon resort operations that allow for the realization of the resort's visitation and budget projections. Economic constraints, or yet to be identified business development opportunities, may lengthen or accelerate the phasing of improvements. It is most likely that subsequent phases of development will be triggered when the resort achieves a utilization rate ranging from 35 to 40 percent.

The recommended development sequence is designed to maintain a balance among all of the resort's components, while at the same time meeting the future, year-round, recreational needs of the public. Each phase features built-in flexibility, which provides management with the option of extending the implementation period to reflect key market and financial conditions. Accordingly, the components of any particular phase may be completed over a one- to five-year time frame, or longer if necessary. Additionally, certain components of the improvement program may be initiated outside of the proposed phasing sequence.

PHASE 1



Mt. Mackenzie Mountain Master Plan

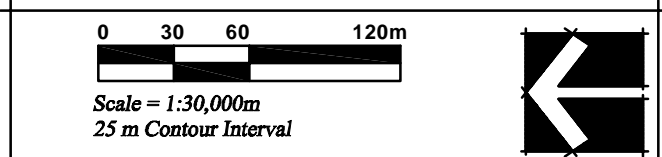
December, 2003

PHASE 1 MOUNTAIN PLAN
Figure IV-5

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PREPARED BY:

SE GROUP®



Mt. Mackenzie Mountain Master Plan

Table IV-18

Lift Specifications – Phase 1

Map Reference	Lift Type	Top Elev. (m.)	Bot. Elev. (m.)	Vert. Rise (m.)	Horiz. Length (m.)	Slope Length (m.)	Avg. Grade (%)	Hourly Capacity (persons/hr)
6	DC6	1,374	783	591	1,652	1,765	36%	2,800
11	C3	1,834	1,691	143	638	662	22%	1,800
12	DC4	1,992	1,593	399	1,239	1,311	32%	2,800
24	Surface	790	781	9	120	120	8%	500
25	C4	1,825	1,374	451	996	1,093	45%	2,400

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-19

Terrain Specifications Summary – Phase 1

Ability Level	Trail Area (ha.)	Terrain Breakdown
Beginner	0.9	1%
Novice	63.5	38%
Low Intermediate	19.0	11%
Intermediate	67.1	40%
Adv. Intermediate	16.4	10%
Expert	0.0	0%
Total:	166.9	100%

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-20

Terrain Specifications – Phase 1

Map Ref.	Top Elev. (m.)	Bottom Elev. (m.)	Vertical Drop (m.)	Plan Length (m.)	Slope Length (m.)	Avg. Width (m.)	Plan Area (ha.)	Slope Area (ha.)	Avg. Grade (%)	Max. Grade (%)	Ability Level
1D	903	526	377	3,173	3,203	27.5	8.7	8.8	12%	18%	Novice
1E	665	652	13	112	113	21.9	0.2	0.2	12%	15%	Novice
5A	1,690	800	890	6,992	7,078	30.9	21.6	21.9	13%	25%	Novice
5B	969	946	23	201	203	23.0	0.5	0.5	11%	11%	Intermediate
5C	916	800	116	1,183	1,190	26.7	3.2	3.2	10%	12%	Novice
5E	971	868	103	398	412	37.7	1.5	1.6	26%	30%	Low Intermediate
6A	1,015	839	175	434	472	94.4	4.1	4.5	40%	45%	Intermediate
6B	1,036	822	214	522	567	65.9	3.4	3.7	41%	44%	Intermediate
6C	1,344	817	527	1,494	1,590	60.6	9.1	9.6	35%	44%	Intermediate
6D	1,376	959	417	1,248	1,326	58.8	7.3	7.8	33%	43%	Intermediate
6E	1,359	803	556	1,693	1,789	61.4	10.4	11.0	33%	45%	Intermediate
6F	1,040	803	237	778	817	46.5	3.6	3.8	30%	45%	Intermediate
6G	1,268	842	426	1,280	1,354	60.8	7.8	8.2	33%	44%	Intermediate
6H	1,376	1,294	81	481	493	31.2	1.5	1.5	17%	28%	Low Intermediate
6I	1,376	1,090	286	954	1,008	53.5	5.1	5.4	30%	49%	Intermediate
6J	874	800	74	689	696	26.0	1.8	1.8	11%	20%	Novice
7A	1,295	882	412	1,296	1,368	58.8	7.6	8.0	32%	49%	Intermediate
11A	1,830	1,705	125	737	755	60.2	4.4	4.5	17%	25%	Novice
11B	1,835	1,695	140	837	848	73.4	6.1	6.1	19%	24%	Novice
11C	1,814	1,690	124	711	722	53.9	3.8	3.9	13%	16%	Novice
12A	1,995	1,694	301	1,528	1,571	37.2	5.7	5.8	20%	35%	Low Intermediate
12B	1,929	1,730	199	658	689	65.8	4.3	4.5	30%	35%	Low Intermediate
12C	1,992	1,696	297	1,872	1,903	59.1	11.1	11.3	16%	24%	Novice
12D	1,998	1,955	43	177	183	65.4	1.2	1.2	25%	28%	Advanced Intermediate
12E	1,748	1,736	12	57	59	41.5	0.2	0.2	21%	26%	Low Intermediate
12F	1,700	1,642	57	224	232	66.5	1.5	1.5	26%	29%	Low Intermediate
12G	1,772	1,611	161	534	558	67.5	3.6	3.8	30%	34%	Low Intermediate
12H	1,812	1,597	215	825	859	52.8	4.4	4.5	26%	41%	Intermediate
12I	1,595	1,515	81	164	184	43.6	0.7	0.8	49%	50%	Advanced Intermediate
12J	1,848	1,787	61	360	366	48.4	1.7	1.8	17%	22%	Novice
15A	2,219	1,319	900	2,312	2,501	57.6	13.3	14.4	39%	55%	Advanced Intermediate
24A	789	781	8	117	118	80.3	0.9	0.9	7%	10%	Beginner
Total:					35,229	27.5	160.5	166.9			

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-21

Terrain Capacity – Phase 1

Ability Level	Trail Area (ha.)	Skier/Rider Capacity (Skiers)
Beginner	0.9	19
Novice	63.5	1,142
Low Intermediate	19.0	266
Intermediate	67.1	671
Adv. Intermediate	16.4	115
Expert	0.0	0
Total:	166.9	2,213

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

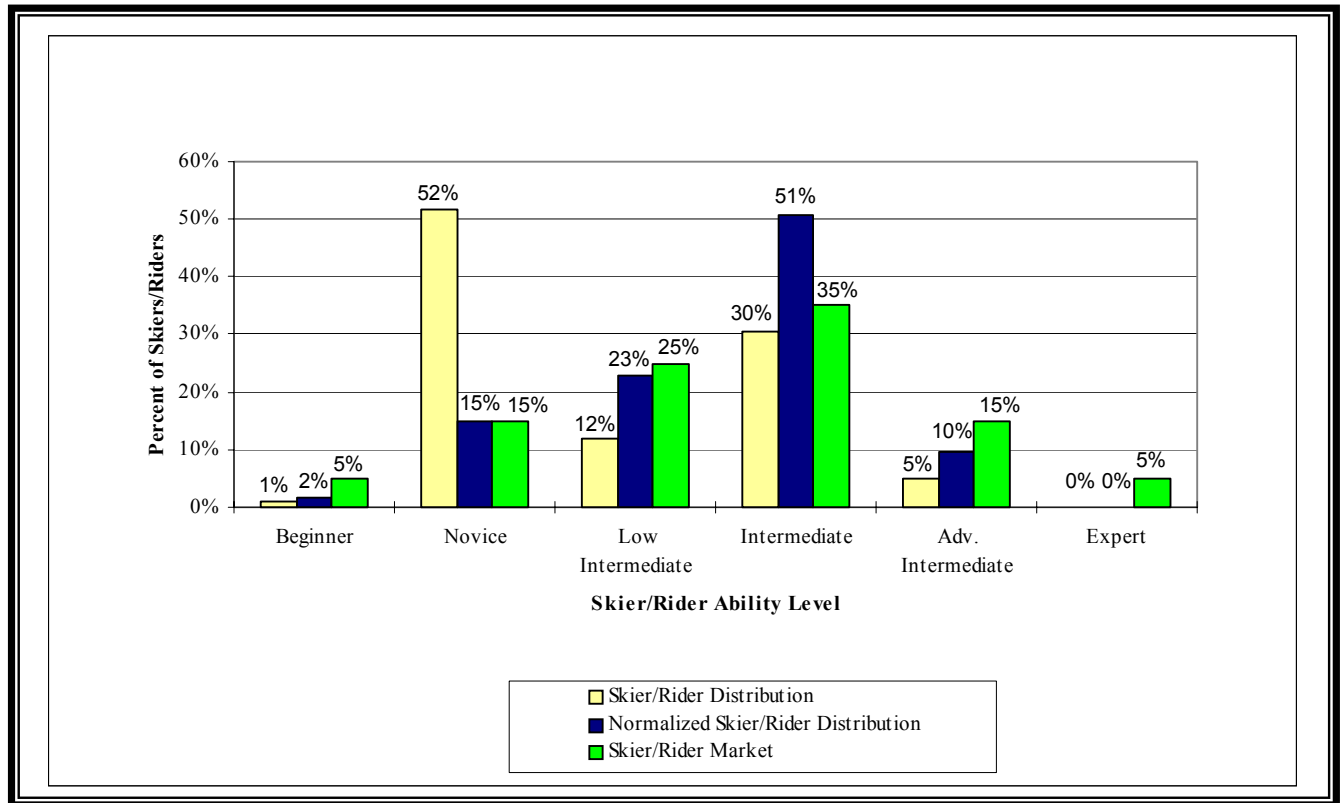
Table IV-22

Skier Capacity Distribution by Ability Levels – Phase 1

Ability Level	Skier Capacity (skiers)	Skier Distribution (%)	Normalized Capacity (skiers)	Normalized Skier Distribution (%)	Skier Market Distribution (%)	Distribution per CASP Guidelines (%)
Beginner	47	1%	47	2%	5%	2 – 6%
Novice	2,857	52%	435	15%	15%	11 – 15%
Low Intermediate	666	12%	666	23%	25%	18 – 22%
Intermediate	1,677	30%	1,677	51%	35%	33 – 37%
Adv. Intermediate	279	5%	279	10%	15%	18 – 22%
Expert	-	0%		0%	5%	8 – 12%
Total:	5,526	100%	3,104	100%	100%	

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan
Chart IV-2
Terrain Distribution by Ability Levels – Phase 1



Mt. Mackenzie Mountain Master Plan
Table IV-23
Calculation of CCC – Phase 1

Map Ref.	Slope Length (m.)	Vert. Rise (m.)	Hourly Capacity (persons/hr.)	Oper. Hours (hrs.)	Up-Mtn. Access Role (%)	Misloading Lift Stop. (%)	Adjusted Hourly Capacity (persons/hr.)	VTM/Day (000)	Weighted Vertical Demand (m./day)	CCC (Skiers)
6	1,765	591	2,800	7.00	10	10	2,240	9,271	4,189	2,210
11	662	143	1,800	6.50	5	15	1,440	1,342	2,500	540
12	1,311	399	2,800	6.80	5	5	2,520	6,829	3,379	2,020
24	120	9	500	6.00	0	5	475	26	1,000	30
25	1,093	451	2,400	6.00	100	0	-	0	0	-
Total:	3,858		7,900				6,675	17,468		4,800

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan
Table IV-24
Disbursement of the Skier Population – Phase 1

Lift Number	Daily Capacity (CCC)	Disbursement of Skier/Rider Population			
		Support Fac./Milling (Skiers)	Lift Lines (Skiers)	On Lift (Skiers)	SAOT (Skiers On Trails)
6	2,210	553	560	216	881
11	540	135	48	130	227
12	2,020	505	546	181	788
24	30	8	0	13	9
Total:	4,800	1,201	1,154	540	1,905

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan
Table IV-25
Snowmaking – Phase 1

Map Ref	Plan Length (m)	Slope Length (m.)	Avg. Width (m)	Slope Area (hectares)	Skier/Rider Ability Level
5A	6,992	7,078	15.0	10.6	Novice
5C	1,183	1,190	10.0	1.2	Novice
6C	1,494	1,590	45.0	7.2	Intermediate
6E	1,693	1,789	45.0	8.1	Intermediate
6H	481	493	20.0	1.0	Low Intermediate
6J	689	696	15.0	1.0	Novice
7A	1,296	1,368	58.8	8.0	Intermediate
24A	117	118	80.3	0.9	Beginner
Total:		14,323		38.0	

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan
Table IV-26
Space Use Recommendations (Phase 1)

Service Function	Recommended Ranges													
	Lower Village		Upper Village		South Base		Mid-mountain Day Lodge		Mountain Top Restaurant		Montana Creek Restaurant		Resort Total	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Ticket Sales/Guest Services	-	-	112	137	-	-	-	-	-	-	-	-	112	137
Public Lockers	-	-	333	407	-	-	-	-	-	-	-	-	333	407
Rentals/Repair	-	-	396	504	-	-	-	-	-	-	-	-	396	504
Retail Sales	-	-	254	310	-	-	-	-	-	-	-	-	254	310
Bar/lounge	-	-	383	468	-	-	-	-	-	-	-	-	383	468
Adult Ski School	-	-	135	166	-	-	45	55	-	-	-	-	181	221
Kid's Ski School	-	-	271	331	-	-	90	110	-	-	-	-	361	441
Restaurant Seating	-	-	597	730	-	-	1,180	1,442	-	-	-	-	1,777	2,172
Kitchen/Scramble	-	-	233	284	-	-	460	562	-	-	-	-	692	846
Rest rooms	-	-	132	161	-	-	260	318	-	-	-	-	392	479
Ski Patrol	-	-	88	108	-	-	88	108	-	-	-	-	177	216
Administration	-	-	254	310	-	-	-	-	-	-	-	-	254	310
Employee Lockers/Lounge	-	-	102	124	-	-	-	-	-	-	-	-	102	124
Mechanical	-	-	89	133	-	-	57	70	-	-	-	-	146	203
Storage	-	-	148	222	-	-	96	117	-	-	-	-	244	339
Circulation/Waste	-	-	355	533	-	-	229	280	-	-	-	-	585	814
TOTAL SQUARE METRES	-	-	3,882	4,930	-	-	2,506	3,063	-	-	-	-	6,388	7,993

Source: SE GROUP

Notes:

1. Upper Village ski patrol space includes first aid
2. Mid-mountain Day Lodge ski patrol space = temporary structure at top of Lift 12

Mt. Mackenzie Mountain Master Plan

Table IV-27

Seating Requirements – Phase 1

	Lower Village	Upper Village	Mid-mountain Lodge	Mountain Top Lodge	Montana Creek Restaurant	Total Resort
Lunchtime Capacity (CCC)	-	1,855	3,665	-	-	5,520
Average Seat Turnover	-	3.5	3.5	-	-	
Required Seats	-	530	1,047	-	-	1,577

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-28

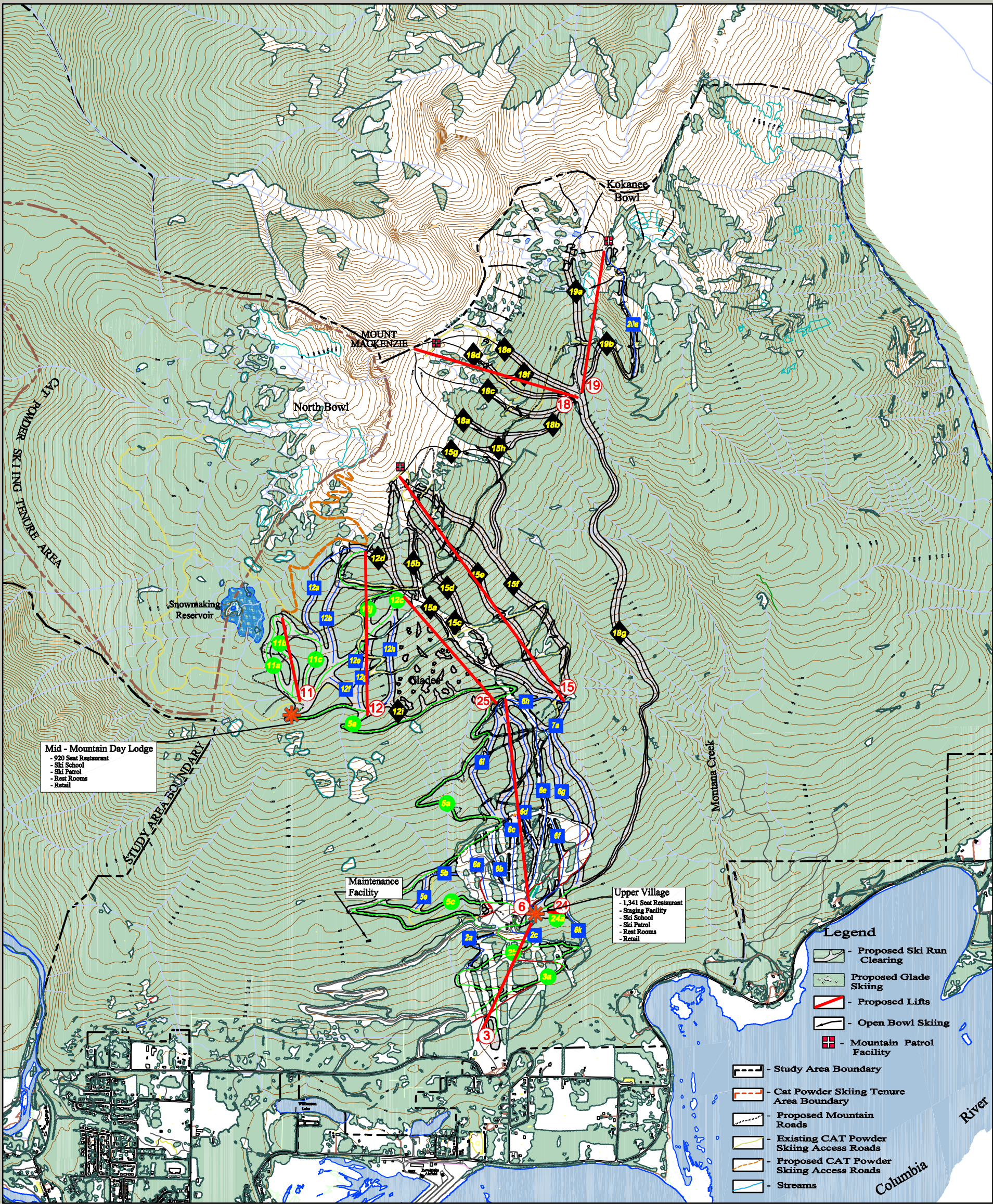
Parking Requirements at Portal Stages Summary – Phase 1

	Multiplier	Total
CCC		4,800
# of guests arriving from off-site	75%	3,600
# of guests arriving by car	50%	1,800
# of guests arriving via off-site bus service	50%	1,800
# of employees ³ arriving by car	40%	154
Required guest car parking spaces	3.00	600
Required employee car parking spaces	3.00	51

Source: SE GROUP

³ It is estimated that Mt. Mackenzie's Phase 1 mountain facilities will have 384 employees (8% of the CCC, as per industry standards).

PHASE 2

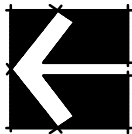
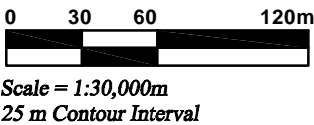


PHASE 2 MOUNTAIN PLAN
Figure IV-6

Mt. Mackenzie Mountain Master Plan

December, 2003

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Mt. Mackenzie Mountain Master Plan

Table IV-29

Lift Specifications – Phase 2

Map Reference	Lift Type	Top Elev. (m.)	Bot. Elev. (m.)	Vert. Rise (m.)	Horiz. Length (m.)	Slope Length (m.)	Avg. Grade (%)	Hourly Capacity (persons/hr)
3	Cabriolet	780	513	267	910	961	29%	3,000
6	DC6	1,374	783	591	1,652	1,765	36%	2,800
11	C3	1,834	1,691	143	638	662	22%	1,800
12	DC4	1,992	1,593	399	1,239	1,311	32%	2,800
15	DC6	2,216	1,296	921	2,113	2,330	44%	2,800
18	DC4	2,325	1,796	529	1,293	1,414	41%	2,400
19	C4	2,198	1,801	397	1,080	1,193	37%	1,500
24	Surface	790	781	9	120	120	8%	500
25	C4	1,825	1,374	451	996	1,093	45%	2,400

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-30

Terrain Specifications Summary – Phase 2

Ability Level	Trail Area (ha.)	Terrain Breakdown
Beginner	0.9	1%
Novice	77.1	25%
Low Intermediate	21.0	7%
Intermediate	80.2	27%
Adv. Intermediate	50.1	17%
Expert	70.1	23%
Total:	299.5	100%

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-31

Terrain Specifications – Phase 2

Map Ref.	Top Elev. (m.)	Bottom Elev. (m.)	Vertical Drop (m.)	Plan Length (m.)	Slope Length (m.)	Avg. Width (m.)	Plan Area (ha.)	Slope Area (ha.)	Avg. Grade (%)	Max. Grade (%)	Ability Level
1D	903	526	377	3,173	3,203	27.5	8.7	8.8	12%	18%	Novice
1E	665	652	13	112	113	21.9	0.2	0.2	12%	15%	Novice
2A	767	655	112	625	639	30.8	1.9	2.0	18%	25%	Low Intermediate
2B	795	530	265	2,107	2,133	36.0	7.6	7.7	13%	25%	Novice
2C	780	721	59	221	232	47.5	1.1	1.1	27%	35%	Intermediate
3A	715	505	209	1,559	1,577	38.0	5.9	6.0	13%	21%	Novice
5A	1,690	800	890	6,992	7,078	30.9	21.6	21.9	13%	25%	Novice
5B	969	946	23	201	203	23.0	0.5	0.5	11%	11%	Intermediate
5C	916	800	116	1,183	1,190	26.7	3.2	3.2	10%	12%	Novice
5E	971	868	103	398	412	37.7	1.5	1.6	26%	30%	Low Intermediate
6A	1,015	839	175	434	472	94.4	4.1	4.5	40%	45%	Intermediate
6B	1,036	822	214	522	567	65.9	3.4	3.7	41%	44%	Intermediate
6C	1,344	817	527	1,494	1,590	60.6	9.1	9.6	35%	44%	Intermediate
6D	1,376	959	417	1,248	1,326	58.8	7.3	7.8	33%	43%	Intermediate
6E	1,359	803	556	1,693	1,789	61.4	10.4	11.0	33%	45%	Intermediate
6F	1,040	803	237	778	817	46.5	3.6	3.8	30%	45%	Intermediate
6G	1,268	842	426	1,280	1,354	60.8	7.8	8.2	33%	44%	Intermediate
6H	1,376	1,294	81	481	493	31.2	1.5	1.5	17%	28%	Low Intermediate
6I	1,376	1,090	286	954	1,008	53.5	5.1	5.4	30%	49%	Intermediate
6J	874	800	74	689	696	26.0	1.8	1.8	11%	20%	Novice
6K	807	675	132	378	404	40.0	1.5	1.6	35%	45%	Intermediate
7A	1,295	882	412	1,296	1,368	58.8	7.6	8.0	32%	49%	Intermediate
11A	1,830	1,705	125	737	755	60.2	4.4	4.5	17%	25%	Novice
11B	1,835	1,695	140	837	848	73.4	6.1	6.1	19%	24%	Novice
11C	1,814	1,690	124	711	722	53.9	3.8	3.9	13%	16%	Novice
12A	1,995	1,694	301	1,528	1,571	37.2	5.7	5.8	20%	35%	Low Intermediate
12B	1,929	1,730	199	658	689	65.8	4.3	4.5	30%	35%	Low Intermediate
12C	1,992	1,696	297	1,872	1,903	59.1	11.1	11.3	16%	24%	Novice
12D	1,998	1,955	43	177	183	65.4	1.2	1.2	25%	28%	Advanced Intermediate
12E	1,748	1,736	12	57	59	41.5	0.2	0.2	21%	26%	Low Intermediate
12F	1,700	1,642	57	224	232	66.5	1.5	1.5	26%	29%	Low Intermediate
12G	1,772	1,611	161	534	558	67.5	3.6	3.8	30%	34%	Low Intermediate
12H	1,812	1,597	215	825	859	52.8	4.4	4.5	26%	41%	Intermediate
12I	1,595	1,515	81	164	184	43.6	0.7	0.8	49%	50%	Advanced Intermediate
12J	1,848	1,787	61	360	366	48.4	1.7	1.8	17%	22%	Novice
15A	2,219	1,319	900	2,312	2,501	57.6	13.3	14.4	39%	55%	Advanced Intermediate
15B	2,053	1,844	209	506	549	66.6	3.4	3.7	41%	45%	Advanced Intermediate
15C	1,727	1,659	67	147	162	61.2	0.9	1.0	46%	51%	Advanced Intermediate
15D	2,216	1,466	750	1,690	1,859	58.7	9.9	10.9	44%	62%	Expert
15E	2,162	1,296	866	2,033	2,235	63.8	13.0	14.3	43%	77%	Expert
15F	2,213	1,297	916	2,223	2,428	64.5	14.3	15.6	41%	59%	Expert

Mt. Mackenzie Mountain Master Plan

Table IV-31

Terrain Specifications – Phase 2

Map Ref.	Top Elev. (m.)	Bottom Elev. (m.)	Vertical Drop (m.)	Plan Length (m.)	Slope Length (m.)	Avg. Width (m.)	Plan Area (ha.)	Slope Area (ha.)	Avg. Grade (%)	Max. Grade (%)	Ability Level
15G	2,216	1,770	447	1,633	1,715	62.0	10.1	10.6	27%	53%	Advanced Intermediate
15H	1,943	1,882	61	194	205	61.5	1.2	1.3	31%	34%	Advanced Intermediate
18A	2,306	1,872	433	1,188	1,283	55.8	6.6	7.2	36%	61%	Expert
18B	1,853	1,849	5	186	187	32.8	0.6	0.6	3%	3%	Expert
18C	2,266	1,796	470	1,343	1,442	57.5	7.7	8.3	35%	66%	Expert
18D	2,316	1,804	512	1,315	1,425	39.5	5.2	5.6	39%	58%	Expert
18E	2,247	1,800	447	1,180	1,278	50.7	6.0	6.5	38%	61%	Expert
18F	2,041	1,945	96	251	270	40.4	1.0	1.1	38%	41%	Expert
18G	1,794	1,658	136	371	398	35.0	1.3	1.4	37%	49%	Advanced Intermediate
19A	2,190	1,804	386	1,492	1,580	84.2	12.6	13.3	26%	52%	Advanced Intermediate
19B	1,914	1,806	109	668	683	36.6	2.4	2.5	16%	31%	Advanced Intermediate
20A	2,195	1,616	579	1,937	2,047	50.7	9.8	10.4	30%	44%	Intermediate
24A	789	781	8	117	118	80.3	0.9	0.9	7%	10%	Beginner
Total:					59,958		284.6	299.5			

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-32

Terrain Capacity – Phase 2

Ability Level	Trail Area (ha.)	Skier/Rider Capacity (Skiers)
Beginner	0.9	19
Novice	77.1	1,389
Low Intermediate	21.0	294
Intermediate	80.2	802
Adv. Intermediate	50.1	351
Expert	70.1	280
Total:	299.5	3,134

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-33

Skier Capacity Distribution by Ability Levels – Phase 2

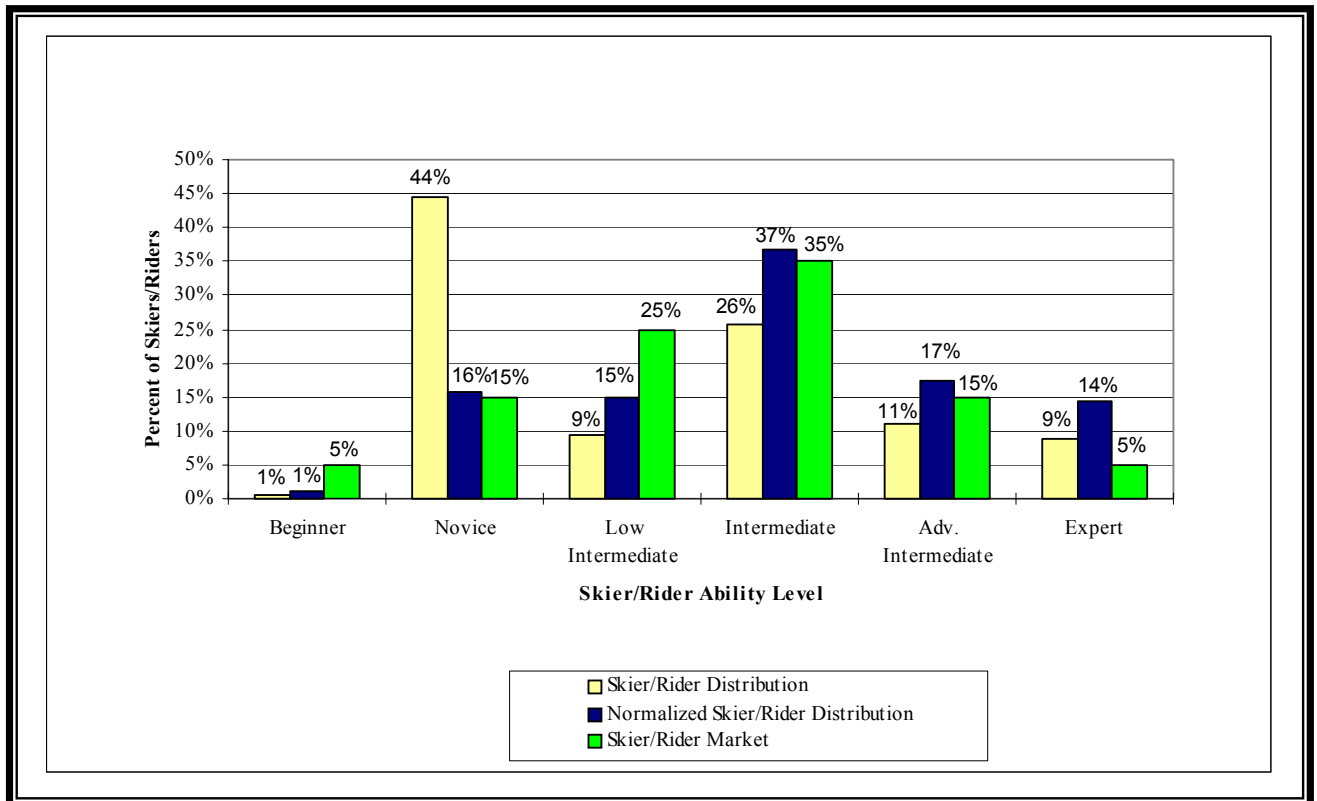
Ability Level	Skier Capacity (skiers)	Skier Distribution (%)	Normalized Capacity (skiers)	Normalized Skier Distribution (%)	Skier Market Distribution (%)	Distribution per CASP Guidelines (%)
Beginner	47	1%	47	1%	5%	2 – 6%
Novice	3,472	44%	766	16%	15%	11 – 15%
Low Intermediate	735	9%	735	15%	25%	18 – 22%
Intermediate	2,004	26%	1,803	37%	35%	33 – 37%
Adv. Intermediate	852	11%	852	17%	15%	18 – 22%
Expert	701	9%	701	14%	5%	8 – 12%
Total:	7,811	100%	4,904	100%	100%	

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Chart IV-3

Terrain Distribution by Ability Levels – Phase 2



Mt. Mackenzie Mountain Master Plan

Table IV-34

Calculation of CCC – Phase 2

Map Ref.	Slope Length (m.)	Vert. Rise (m.)	Hourly Capacity (persons/hr.)	Oper. Hours (hrs.)	Up-Mtn. Access Role (%)	Misloading Lift Stop. (%)	Adjusted Hourly Capacity (persons/hr.)	VTM/Day (000)	Weighted Vertical Demand (m./day)	CCC (Skiers)
3	961	267	3,000	7.00	75	5	600	1,120	2,742	410
6	1,765	591	2,800	7.00	10	10	2,240	9,271	4,205	2,200
11	662	143	1,800	6.50	5	15	1,440	1,342	2,500	540
12	1,311	399	2,800	6.80	5	5	2,520	6,829	3,379	2,020
15	2,330	921	2,800	6.80	50	10	1,120	7,012	8,521	820
18	1,414	529	2,400	6.25	0	5	2,280	7,537	9,947	760
19	1,193	397	1,500	6.00	0	5	1,425	3,392	7,934	430
24	120	9	500	6.00	0	5	475	26	1,000	30
25	1,093	451	2,400	6.00	100	0	-	0	0	-
Total:	9,757		17,600				12,100	36,529		7,210

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-35

Disbursement of the Skier Population – Phase 2

		Disbursement of Skier/Rider Population			
Lift Number	Daily Capacity (CCC)	Support Fac./Milling (Skiers)	Lift Lines (Skiers)	On Lift (Skiers)	SAOT (Skiers On Trails)
3	410	103	5	32	270
6	2,200	550	560	216	874
11	540	135	48	130	227
12	2,020	505	546	181	788
15	820	205	79	143	393
18	760	190	114	176	280
19	430	108	12	186	124
24	30	8	0	13	9
Total:	7,210	1,804	1,364	1,077	2,965

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

**Table IV-36
Snowmaking – Phase 2**

Map Ref	Plan Length (m)	Slope Length (m.)	Avg. Width (m)	Slope Area (hectares)	Skier/Rider Ability Level
2A	625	639	15.0	1.0	Low Intermediate
2B	2,107	2,133	25.0	5.3	Novice
2C	221	232	20.0	0.5	Intermediate
3A	1,559	1,577	20.0	3.2	Novice
5A	6,992	7,078	15.0	10.6	Novice
5C	1,183	1,190	10.0	1.2	Novice
6C	1,494	1,590	45.0	7.2	Intermediate
6E	1,693	1,789	45.0	8.1	Intermediate
6G	1,280	1,354	45.0	6.1	Intermediate
6H	481	493	20.0	1.0	Low Intermediate
6J	689	696	15.0	1.0	Novice
7A	1,296	1,368	58.8	8.0	Intermediate
24A	117	118	80.3	0.9	Beginner
Total		20,259		54.0	

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan
Table IV-37
Space Use Recommendations (Phase 2)

Service Function	Recommended Ranges													
	Lower Village		Upper Village		South Base		Mid-mountain Day Lodge		Mountain Top Restaurant		Montana Creek Restaurant		Resort Total	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Ticket Sales/Guest Services	118	144	51	62	-	-	-	-	-	-	-	-	169	206
Public Lockers	350	428	150	183	-	-	-	-	-	-	-	-	500	612
Rentals/Repair	416	530	178	227	-	-	-	-	-	-	-	-	595	757
Retail Sales	243	297	95	117	-	-	43	52	-	-	-	-	381	466
Bar/lounge	432	527	144	176	-	-	-	-	-	-	-	-	575	703
Adult Ski School	190	232	27	33	-	-	54	66	-	-	-	-	271	332
Kid's Ski School	380	464	54	66	-	-	109	133	-	-	-	-	543	663
Restaurant Seating	122	149	1511	1847	-	-	1036	1266	-	-	-	-	2,669	3,262
Kitchen/Scramble	47	58	589	720	-	-	404	493	-	-	-	-	1,040	1,271
Rest rooms	27	33	334	408	-	-	229	280	-	-	-	-	589	720
Ski Patrol	66	81	53	65	-	-	27	32	119	146	-	-	265	324
Administration	343	419	38	47	-	-	-	-	-	-	-	-	381	466
Employee Lockers/Lounge	137	168	15	19	-	-	-	-	-	-	-	-	153	186
Mechanical	78	117	87	131	-	-	51	63	3	4	-	-	220	314
Storage	129	194	146	218	-	-	86	105	5	7	-	-	366	524
Circulation/Waste	310	466	350	524	-	-	205	251	13	16	-	-	878	1,257
TOTAL SQUARE METRES	3389	4308	3822	4841	-	-	2243	2742	141	172	-	-	9,595	12,063

Source: SE GROUP

Notes:

1. Upper Village and Lower Village ski patrol space includes first aid
2. Mountain Top restaurant ski patrol space = patrol headquarters. Also includes patrol stations at top of lifts 19 and 20
3. Mid-mountain Day Lodge ski patrol space = first aid space and duty station at top of Lift 14

Mt. Mackenzie Mountain Master Plan

Table IV-38

Seating Requirements – Phase 2

	Lower Village	Upper Village	Mid-mountain Lodge	Mountain Top Lodge	Montana Creek Restaurant	Total Resort
Lunchtime Capacity (CCC)	379	4,694	3,219	-	-	8,292
Average Seat Turnover	3	3.5	3.5	-	-	
Required Seats	126	1,341	920	-	-	2,387

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-39

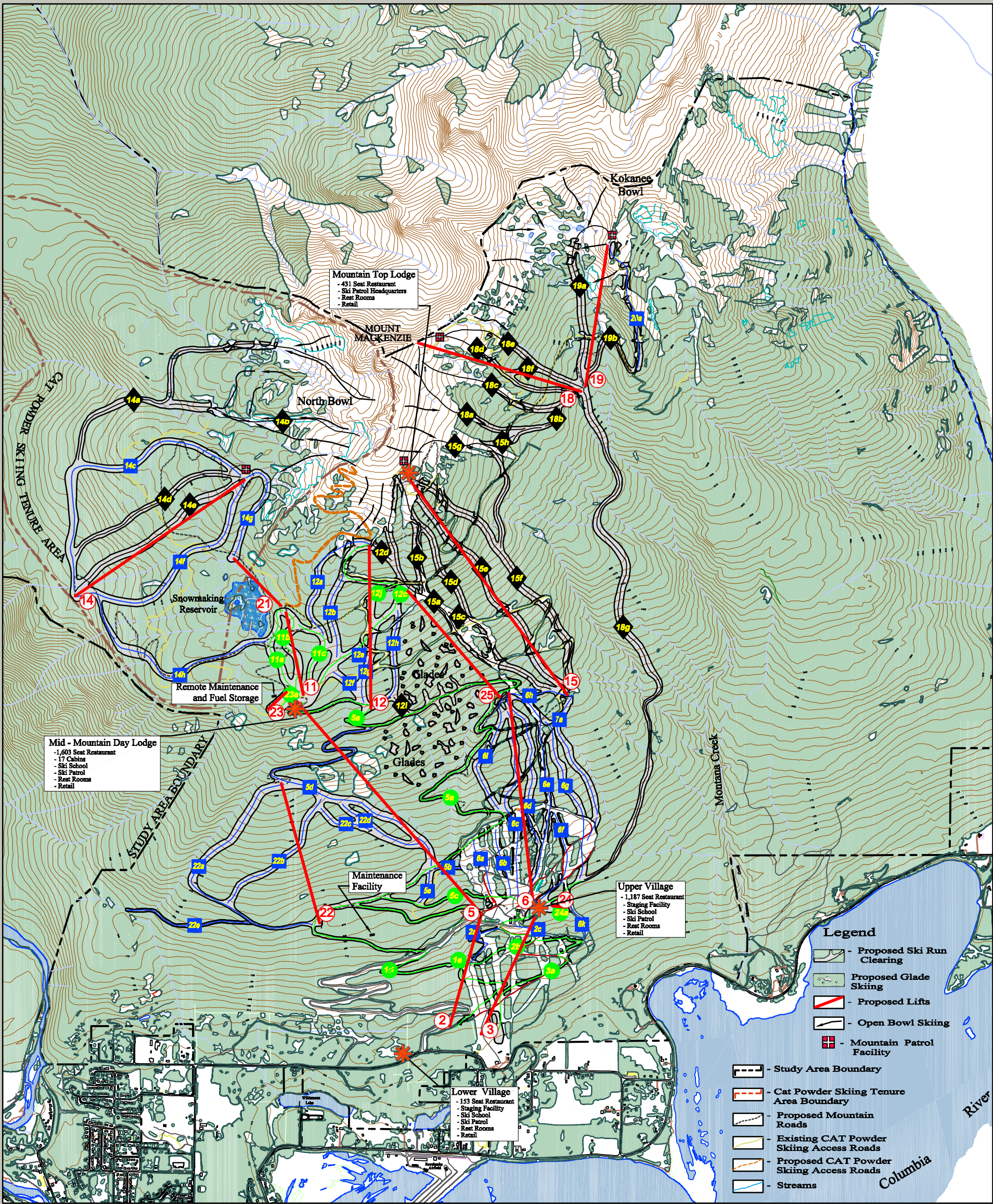
Parking Requirements Summary – Phase 2

	Multiplier	Total
CCC		7,210
# of guests arriving from off-site	70%	5,047
# of guests arriving by car	60%	3,028
# of guests arriving via off-site bus service	40%	2,019
# of employees ⁴ arriving by car	40%	230
Required guest car parking spaces	3.00	1,010
Required employee car parking spaces	3.00	77

Source: SE GROUP

⁴ It is estimated that Mt. Mackenzie's mountain facilities will have 577 employees (8% of the CCC, as per industry standards).

PHASE 3



PHASE 3 MOUNTAIN PLAN
Figure IV-7

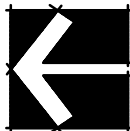
Mt. Mackenzie Mountain Master Plan

December, 2003

PREPARED FOR:
REVELSTOKE ALPINE
VILLAGE, INC.



0 30 60 120m
Scale = 1:30,000m
25 m Contour Interval



Mt. Mackenzie Mountain Master Plan

Table IV-40

Lift Specifications – Phase 3

Map Reference	Lift Type	Top Elev. (m.)	Bot. Elev. (m.)	Vert. Rise (m.)	Horiz. Length (m.)	Slope Length (m.)	Avg. Grade (%)	Hourly Capacity (persons/hr)
2	Gondola	790	530	260	900	950	29%	2,800
3	Cabriolet	780	513	267	910	961	29%	3,000
5	Gondola	1,687	790	897	2,170	2,373	41%	2,800
6	DC6	1,374	783	591	1,652	1,765	36%	2,800
11	C3	1,834	1,691	143	638	662	22%	1,800
12	DC4	1,992	1,593	399	1,239	1,311	32%	2,800
14	DC4	1,961	1,487	473	1,565	1,650	30%	2,400
15	DC6	2,216	1,296	921	2,113	2,330	44%	2,800
18	DC4	2,325	1,796	529	1,293	1,414	41%	2,400
19	C4	2,198	1,801	397	1,080	1,193	37%	1,500
21	C3	1,829	1,766	63	506	513	12%	1,800
22	DC4	1,374	874	500	1,102	1,225	45%	2,400
23	C3	1,700	1,679	21	187	189	11%	1,000
24	Surface	790	781	9	120	120	8%	500
25	C4	1,825	1,374	451	996	1,093	45%	2,400

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-41

Terrain Specifications Summary – Phase 3

Ability Level	Trail Area (ha.)	Terrain Breakdown
Beginner	3.2	1%
Novice	77.1	18%
Low Intermediate	55.1	13%
Intermediate	122.1	28%
Adv. Intermediate	98.1	23%
Expert	73.5	17%
Total:	429.2	100%

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-42

Terrain Specifications – Phase 3

Map Ref.	Top Elev. (m.)	Bottom Elev. (m.)	Vertical Drop (m.)	Plan Length (m.)	Slope Length (m.)	Avg. Width (m.)	Plan Area (ha.)	Slope Area (ha.)	Avg. Grade (%)	Max. Grade (%)	Ability Level
1D	903	526	377	3,173	3,203	27.5	8.7	8.8	12%	18%	Novice
1E	665	652	13	112	113	21.9	0.2	0.2	12%	15%	Novice
2A	767	655	112	625	639	30.8	1.9	2.0	18%	25%	Low Intermediate
2B	795	530	265	2,107	2,133	36.0	7.6	7.7	13%	25%	Novice
2C	780	721	59	221	232	47.5	1.1	1.1	27%	35%	Intermediate
3A	715	505	209	1,559	1,577	38.0	5.9	6.0	13%	21%	Novice
5A	1,690	800	890	6,992	7,078	30.9	21.6	21.9	13%	25%	Novice
5B	969	946	23	201	203	23.0	0.5	0.5	11%	11%	Intermediate
5C	916	800	116	1,183	1,190	26.7	3.2	3.2	10%	12%	Novice
5D	1,545	979	565	2,866	2,950	44.7	12.8	13.2	20%	42%	Low Intermediate
5E	971	868	103	398	412	37.7	1.5	1.6	26%	30%	Low Intermediate
6A	1,015	839	175	434	472	94.4	4.1	4.5	40%	45%	Intermediate
6B	1,036	822	214	522	567	65.9	3.4	3.7	41%	44%	Intermediate
6C	1,344	817	527	1,494	1,590	60.6	9.1	9.6	35%	44%	Intermediate
6D	1,376	959	417	1,248	1,326	58.8	7.3	7.8	33%	43%	Intermediate
6E	1,359	803	556	1,693	1,789	61.4	10.4	11.0	33%	45%	Intermediate
6F	1,040	803	237	778	817	46.5	3.6	3.8	30%	45%	Intermediate
6G	1,268	842	426	1,280	1,354	60.8	7.8	8.2	33%	44%	Intermediate
6H	1,376	1,294	81	481	493	31.2	1.5	1.5	17%	28%	Low Intermediate
6I	1,376	1,090	286	954	1,008	53.5	5.1	5.4	30%	49%	Intermediate
6J	874	800	74	689	696	26.0	1.8	1.8	11%	20%	Novice
6K	807	675	132	378	404	40.0	1.5	1.6	35%	45%	Intermediate
7A	1,295	882	412	1,296	1,368	58.8	7.6	8.0	32%	49%	Intermediate
11A	1,830	1,705	125	737	755	60.2	4.4	4.5	17%	25%	Novice
11B	1,835	1,695	140	837	848	73.4	6.1	6.1	19%	24%	Novice
11C	1,814	1,690	124	711	722	53.9	3.8	3.9	13%	16%	Novice
12A	1,995	1,694	301	1,528	1,571	37.2	5.7	5.8	20%	35%	Low Intermediate
12B	1,929	1,730	199	658	689	65.8	4.3	4.5	30%	35%	Low Intermediate
12C	1,992	1,696	297	1,872	1,903	59.1	11.1	11.3	16%	24%	Novice
12D	1,998	1,955	43	177	183	65.4	1.2	1.2	25%	28%	Advanced Intermediate
12E	1,748	1,736	12	57	59	41.5	0.2	0.2	21%	26%	Low Intermediate
12F	1,700	1,642	57	224	232	66.5	1.5	1.5	26%	29%	Low Intermediate
12G	1,772	1,611	161	534	558	67.5	3.6	3.8	30%	34%	Low Intermediate
12H	1,812	1,597	215	825	859	52.8	4.4	4.5	26%	41%	Intermediate
12I	1,595	1,515	81	164	184	43.6	0.7	0.8	49%	50%	Advanced Intermediate
12J	1,848	1,787	61	360	366	48.4	1.7	1.8	17%	22%	Novice
14A	2,166	1,668	498	2,967	3,072	55.5	16.5	17.1	17%	47%	Advanced Intermediate
14B	2,164	1,752	412	1,506	1,590	85.9	12.9	13.6	27%	45%	Advanced Intermediate
14C	1,951	1,494	457	2,358	2,420	57.8	13.6	14.0	19%	43%	Intermediate
14D	1,956	1,519	438	1,519	1,592	43.0	6.5	6.8	29%	51%	Advanced Intermediate
14E	1,959	1,494	464	1,570	1,651	63.2	9.9	10.4	30%	48%	Advanced Intermediate
14F	1,962	1,489	472	1,801	1,877	58.2	10.5	10.9	26%	45%	Intermediate

Mt. Mackenzie Mountain Master Plan

Table IV-42

Terrain Specifications – Phase 3

Map Ref.	Top Elev. (m.)	Bottom Elev. (m.)	Vertical Drop (m.)	Plan Length (m.)	Slope Length (m.)	Avg. Width (m.)	Plan Area (ha.)	Slope Area (ha.)	Avg. Grade (%)	Max. Grade (%)	Ability Level
14G	1,958	1,768	190	838	864	59.5	5.0	5.1	23%	34%	Low Intermediate
14H	1,794	1,510	285	1,917	1,948	47.2	9.0	9.2	15%	31%	Low Intermediate
15A	2,219	1,319	900	2,312	2,501	57.6	13.3	14.4	39%	55%	Advanced Intermediate
15B	2,053	1,844	209	506	549	66.6	3.4	3.7	41%	45%	Advanced Intermediate
15C	1,727	1,659	67	147	162	61.2	0.9	1.0	46%	51%	Advanced Intermediate
15D	2,216	1,466	750	1,690	1,859	58.7	9.9	10.9	44%	62%	Expert
15E	2,162	1,296	866	2,033	2,235	63.8	13.0	14.3	43%	77%	Expert
15F	2,213	1,297	916	2,223	2,428	64.5	14.3	15.6	41%	59%	Expert
15G	2,216	1,770	447	1,633	1,715	62.0	10.1	10.6	27%	53%	Advanced Intermediate
15H	1,943	1,882	61	194	205	61.5	1.2	1.3	31%	34%	Advanced Intermediate
18A	2,306	1,872	433	1,188	1,283	55.8	6.6	7.2	36%	61%	Expert
18B	1,853	1,849	5	186	187	32.8	0.6	0.6	3%	3%	Expert
18C	2,266	1,796	470	1,343	1,442	57.5	7.7	8.3	35%	66%	Expert
18D	2,316	1,804	512	1,315	1,425	39.5	5.2	5.6	39%	58%	Expert
18E	2,247	1,800	447	1,180	1,278	50.7	6.0	6.5	38%	61%	Expert
18F	2,041	1,945	96	251	270	40.4	1.0	1.1	38%	41%	Expert
18G	1,794	1,658	136	371	398	35.0	1.3	1.4	37%	49%	Advanced Intermediate
19A	2,190	1,804	386	1,492	1,580	84.2	12.6	13.3	26%	52%	Advanced Intermediate
19B	1,914	1,806	109	668	683	36.6	2.4	2.5	16%	31%	Advanced Intermediate
20A	2,195	1,616	579	1,937	2,047	50.7	9.8	10.4	30%	44%	Intermediate
22A	1,374	875	499	2,066	2,146	48.9	10.1	10.5	24%	48%	Intermediate
22B	1,280	965	315	1,121	1,169	55.5	6.2	6.5	28%	41%	Intermediate
22C	1,262	1,121	141	565	584	43.3	2.4	2.5	25%	33%	Low Intermediate
22D	1,244	1,061	183	676	701	58.2	3.9	4.1	27%	32%	Low Intermediate
22E	984	799	185	547	587	57.7	3.2	3.4	34%	56%	Expert
23A	1,701	1,678	22	217	219	103.2	2.2	2.3	10%	11%	Beginner
24A	789	781	8	117	118	80.3	0.9	0.9	7%	10%	Beginner
Total:					83,330		409.5	429.2			

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-43

Terrain Capacity – Phase 3

Ability Level	Trail Area (ha.)	Skier/Rider Capacity (Skiers)
Beginner	3.2	64
Novice	77.1	1,389
Low Intermediate	55.1	772
Intermediate	122.1	1,221
Adv. Intermediate	98.1	687
Expert	73.5	294
Total:	429.2	4,426

Source: SE GROUP

Mt. Mackenzie Mountain Master

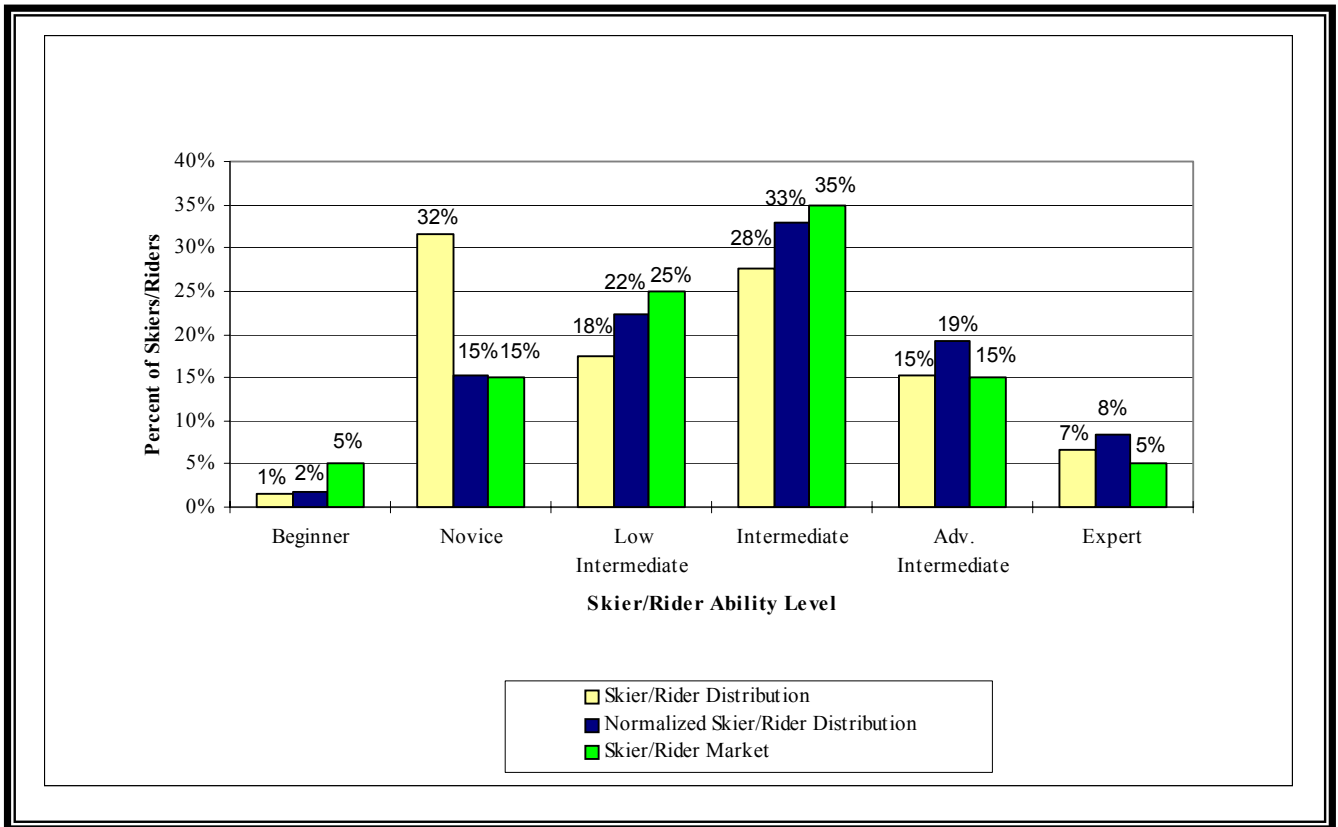
Table IV-44

Skier Capacity Distribution by Ability Levels – Phase 3

Ability Level	Skier Capacity (skiers)	Skier Distribution (%)	Normalized Capacity (skiers)	Normalized Skier Distribution (%)	Skier Market Distribution (%)	Distribution per CASP Guidelines (%)
Beginner	160	1%	161	2%	5%	2 – 6%
Novice	3,472	32%	1,331	15%	15%	11 – 15%
Low Intermediate	1,930	18%	1,930	22%	25%	18 – 22%
Intermediate	3,051	28%	2,850	33%	35%	33 – 37%
Adv. Intermediate	1,668	15%	1,668	19%	15%	18 – 22%
Expert	735	7%	735	8%	5%	8 – 12%
Total:	11,016	100%	8,675	100%	100%	

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan
Chart IV-4
Terrain Distribution by Ability Levels –Phase 3



Mt. Mackenzie Mountain Master Plan

Table IV-45

Calculation of CCC – Phase 3

Map Ref.	Slope Length (m.)	Vert. Rise (m.)	Hourly Capacity (persons/hr.)	Oper. Hours (hrs.)	Up-Mtn. Access Role (%)	Misloading Lift Stop. (%)	Adjusted Hourly Capacity (persons/hr.)	VTM/Day (000)	Weighted Vertical Demand (m./day)	CCC (Skiers)
2	950	260	2,800	7.00	100	0	-	0	0	-
3	961	267	3,000	7.00	75	5	600	1,120	2,742	410
5	2,373	897	2,800	7.00	75	20	140	879	3,195	280
6	1,765	591	2,800	7.00	10	10	2,240	9,271	4,205	2,200
11	662	143	1,800	6.50	5	15	1,440	1,342	2,500	540
12	1,311	399	2,800	6.80	5	5	2,520	6,829	3,379	2,020
14	1,650	473	2,400	6.00	0	5	2,280	6,473	5,857	1,110
15	2,330	921	2,800	6.80	50	10	1,120	7,012	8,521	820
18	1,414	529	2,400	6.25	0	5	2,280	7,537	9,947	760
19	1,193	397	1,500	6.00	0	5	1,425	3,392	7,934	430
21	513	63	1,800	6.50	100	0	-	0	0	-
22	1,225	500	2,400	6.80	15	5	1,920	6,527	4,423	1,480
23	189	21	1,000	6.00	0	10	900	116	1,000	120
24	120	9	500	6.00	0	5	475	26	1,000	30
25	1,093	451	2,400	6.00	100	0	-	0	0	-
Total:	16,657		30,800				17,340	50,524		10,200

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-46

Disbursement of the Skier Population – Phase 3

Lift Number	Daily Capacity (CCC)	Disbursement of Skier/Rider Population			
		Support Fac./Milling (Skiers)	Lift Lines (Skiers)	On Lift (Skiers)	SAOT (Skiers On Trails)
3	410	103	5	32	270
5	280	70	35	18	157
6	2,200	550	560	216	874
11	540	135	48	130	227
12	2,020	505	546	181	788
14	1,110	278	190	206	436
15	820	205	79	143	393
18	760	190	114	176	280
19	430	108	12	186	124
22	1,480	370	480	128	502
23	120	30	15	23	52
24	30	8	0	13	9
Total:	10,200	2,552	2,084	1,452	4,112

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

**Table IV-47
Snowmaking – Phase 3**

Map Ref	Plan Length (m)	Slope Length (m.)	Avg. Width (m)	Slope Area (hectares)	Skier/Rider Ability Level
1D	3,173	3,203	10.0	3.2	Novice
1E	112	113	10.0	0.1	Novice
2A	625	639	15.0	1.0	Low Intermediate
2B	2,107	2,133	25.0	5.3	Novice
2C	221	232	20.0	0.5	Intermediate
3A	1,559	1,577	20.0	3.2	Novice
5A	6,992	7,078	15.0	10.6	Novice
5C	1,183	1,190	10.0	1.2	Novice
5D	2,866	2,950	35.0	10.3	Low Intermediate
6C	1,494	1,590	45.0	7.2	Intermediate
6E	1,693	1,789	45.0	8.1	Intermediate
6G	1,280	1,354	45.0	6.1	Intermediate
6H	481	493	20.0	1.0	Low Intermediate
6J	689	696	15.0	1.0	Novice
7A	1,296	1,368	58.8	8.0	Intermediate
22A	2,066	2,146	45.0	9.7	Intermediate
22B	1,121	1,169	50.0	5.8	Intermediate
22E	547	587	57.7	3.4	Expert
24A	117	118	80.3	0.9	Beginner
		30,427		86.6	

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan
Table IV-48
Space Use Recommendations (Phase 3)

Service Function	Recommended Ranges													
	Lower Village		Upper Village		South Base		Mid-mountain Day Lodge		Mountain Top Restaurant		Montana Creek Restaurant		Resort Total	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Ticket Sales/Guest Services	143	175	96	117	-	-	-	-	-	-	-	-	239	292
Public Lockers	425	519	283	346	-	-	-	-	-	-	-	-	708	865
Rentals/Repair	505	643	337	428	-	-	-	-	-	-	-	-	842	1,071
Retail Sales	321	392	162	198	-	-	19	23	19	23	-	-	539	659
Bar/lounge	570	696	244	298	-	-	-	-	-	-	-	-	814	995
Adult Ski School	249	305	58	70	-	-	77	94	-	-	-	-	384	469
Kid's Ski School	499	610	115	141	-	-	154	188	-	-	-	-	768	938
Restaurant Seating	148	181	1,337	1,635	-	-	1,806	2,207	485	593	-	-	3,776	4,615
Kitchen/Scramble	58	70	521	637	-	-	703	860	189	231	-	-	1,471	1,798
Rest rooms	33	40	295	361	-	-	399	487	107	131	-	-	834	1,019
Ski Patrol	94	115	75	92	-	-	38	46	169	206	-	-	375	459
Administration	485	593	54	66	-	-	-	-	-	-	-	-	539	659
Employee Lockers/Lounge	194	237	22	26	-	-	-	-	-	-	-	-	216	264
Mechanical	101	151	97	146	-	-	86	105	26	32	-	-	311	435
Storage	168	252	162	243	-	-	144	176	44	53	-	-	518	725
Circulation/Waste	402	604	389	583	-	-	345	433	105	128	-	-	1,243	1,739
TOTAL SQUARE METRES	4,394	5,583	4,246	5,386	-	-	3,769	4,607	1,144	1,398	-	-	13,575	17,002

Source: SE GROUP

Notes:

1. Upper Village and Lower Village ski patrol includes first aid
2. Mid-mountain Day Lodge ski patrol = first aid and duty station at top of lift 14
3. Mountain Top restaurant ski patrol = duty stations at top of lifts 19 and 20

Mt. Mackenzie Mountain Master Plan

Table IV-49

Seating Requirements – Phase 3

	Lower Village	Upper Village	Mid-mountain Lodge	Mountain Top Lodge	Montana Creek Restaurant	Total Resort
Lunchtime Capacity (CCC)	459	4,155	5,609	1,508	-	11,730
Average Seat Turnover	3	3.5	3.5	3.5	-	
Required Seats	153	1,187	1,603	431	-	3,373

Source: SE GROUP

Mt. Mackenzie Mountain Master Plan

Table IV-50

Parking Requirements Summary – Phase 3

	Multiplier	Total
CCC + other guests	15%	11,730
# of guests arriving from off-site	50%	5,860
# of guests arriving by car	55%	3,223
# of guests arriving via off-site bus service	45%	2,637
# of employees ⁵ arriving by car	40%	326
Required guest car parking spaces	3.00	1,074
Required employee car parking spaces	3.00	109

Source: SE GROUP

⁵ It is estimated that Mt. Mackenzie's mountain facilities will have 816 employees (8% of the CCC, as per industry standards).

V. OPERATIONAL PLANS ASSOCIATED WITH CAT POWDER SKIING, INC. PRIOR RIGHTS

A. INTRODUCTION

CAT Powder Skiing, Inc. (CPS) holds prior rights for use of certain areas within the proposed resort CRA for operation of its snowcat skiing program. CPS's prior rights are outlined in the following agreements between CPS and the City of Revelstoke, and between CPS and the Province of British Columbia:

Mount Mackenzie and Mount Cartier-Amended Commercial Back Country Recreation (CBR) Tenure for Cat Skiing Purposes between the City of Revelstoke ("City") and CAT Powder Skiing Inc. ("CPS")
Dated February 11, 1998

CAT Powder Skiing Inc. 402816 License of Occupation - Commercial Recreation between the Province of British Columbia and CAT Powder Skiing Inc.
Dated November 1, 1998 and Amended/Modified September 30th 1999 and December 4, 2001

CAT Powder Skiing Inc. 4410680 License of Occupation - Commercial Recreation between the Province of British Columbia and CAT Powder Skiing Inc.
Dated December 1, 1998

Mount Mackenzie Ski Facility License Agreement between CAT Powder Skiing Inc. and the City of Revelstoke
Dated November 25, 1999

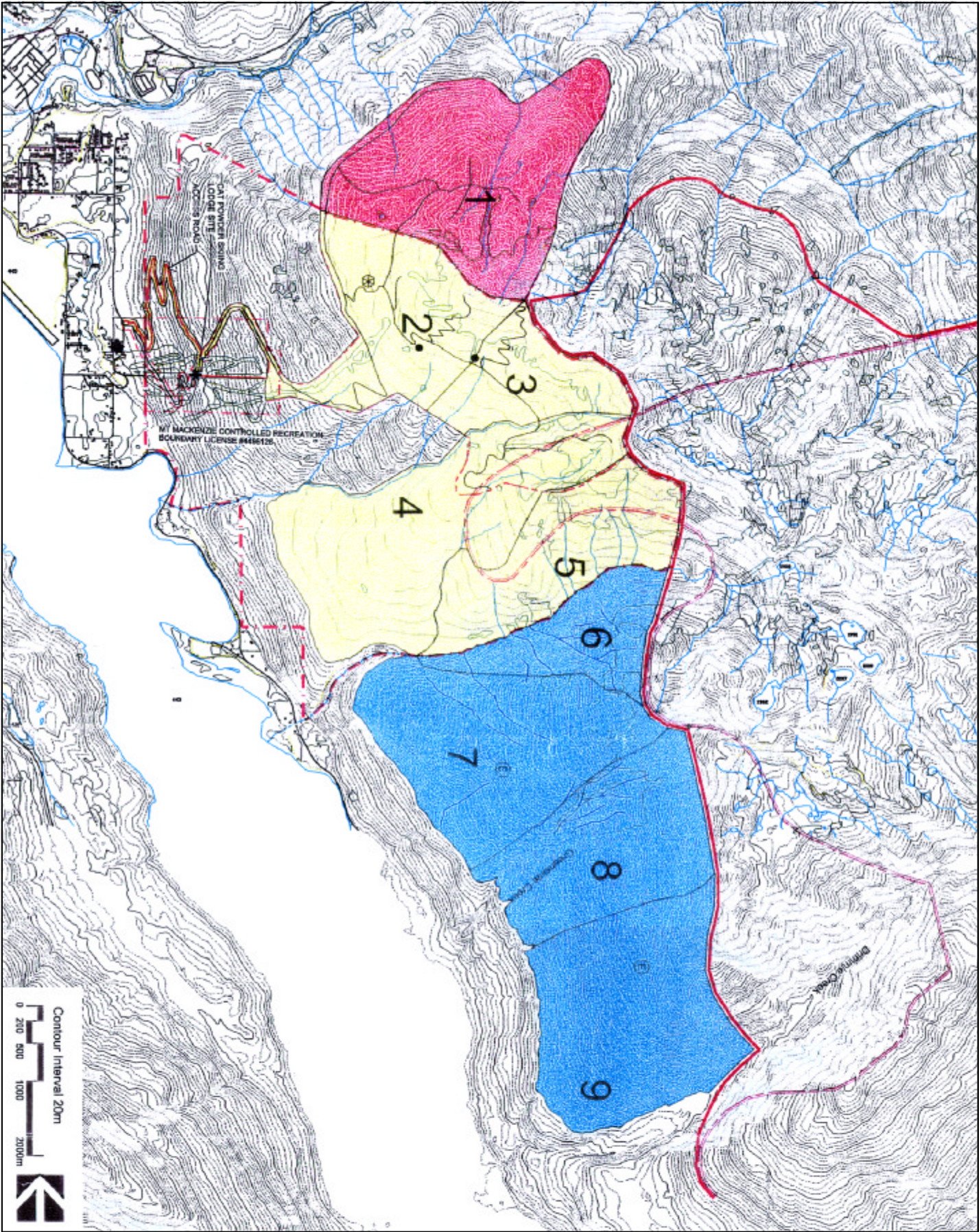
Land and Water B.C. has confirmed that these agreements sufficiently address the issues of prior rights between the three parties. All of these agreements acknowledge the expectation for development of an alpine ski resort on Mt. Mackenzie and include provisions for integration of CPS and the resort operation at such time as the resort is developed. To generalize these agreements, CPS has the right to continue operation of its snowcat skiing program within Zones 2, 3, 4 and 5 of its tenure area until each portion of those areas is required by the Alpine Operator for lift-serviced skiing. Zone 1 of the CPS tenure area (the "North Bowl") is to be excluded from the alpine ski tenure area unless a specific agreement is made between CPS and the Alpine Operator. Specifically, the February 11, 1998 agreement between the City and CPS, in Section 2.8, states "The City and CPS acknowledge that the ski area master plan may consider the

phasing of lift-serviced skiing. In order to integrate that development with relocation of CPS' activities as contemplated by the rest of this agreement, CPS' activities are to continue within the tenure area granted to the Alpine Operator until each portion of that area is required by the Alpine Operator for lift-serviced skiing."

Furthermore, the November 25, 1999 agreement between the City and CPS provides for assignment of the CPS Lease of its 5-acre parcel (where CPS base facilities currently exist) to the City and/or the resort operator provided the following conditions are fulfilled (by the City or the resort operator):

1. The City must provide notice as provided for in Section 12.4 (*of this agreement*); and
2. The City must provide the following to CPS:
 - a) A lease of or title to land for the construction of a 50 room lodge and support facilities (in this article, "Replacement Lodge") with road access of a Class 2 Provincial Standard, which replacement lodge must be within 500 metres of a ski lift or with road access to a snowcat maintenance and storage depot (in this article "Depot");
 - b) A site for the Depot within 500 metres of a ski lift or road access from the Replacement Lodge and with snow cat road access from the Depot to the CPS Tenured Area;
 - c) Water, power and sewage services to the Replacement Lodge and Depot, of a standard comparable to water, power and sewage services constructed by CPS under this agreement;
 - d) Compensation for the replacement cost of constructing or relocating the Replacement Lodge and Depot and for any capital improvements made by CPS to the portions of the Ski Facility located on the area licensed to the City under the License of Occupation; and
 - e) Lump sum compensation, in an amount negotiated by the parties, for loss of business during the relocation of CPS' operations to the Replacement Lodge, provided that if the parties are unable to agree on the amount of compensation, the matter shall be referred to arbitration pursuant to Article 15.

In accordance with the intent of the four prior rights agreements listed above, the following operational plans have been developed to satisfy the prior rights of CPS.



CAT POWDER SKIING

Revelstoke, BC

Cat Powder Sking Replacement Tenure Area

November 1998

Legend

(A) Existing Cat Powder Sking Tenure Area License #401293

(C) Cat Powder Sking Replacement Tenure Area

(B) Excluded from Alpine Ski Area Development

(D) Included in Alpine Ski Development Area

(E) Cat Powder Amended Tenure Area

(F) Existing Selkirk Tangles Tenure Area License #4496113

(G) Amended Selkirk Tangles Tenure Area

(H) Existing Mount Mackenzie Controlled Recreation Boundary License # 4496128

(I) Mount Mackenzie Modified Agreement Area

(J) Existing On-mountain Staging Area Fuel Cache

(K) Existing Weather Station

(L) Existing Emergency Cache

(M) Proposed Emergency Cache

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Mt. Mackenzie Mountain Master Plan

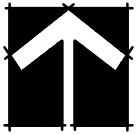
December, 2003

PREPARED FOR:

REVELSTOKE ALPINE
VILLAGE, INC.



Scale = Not to Scale



B. OPERATIONAL PLANS

1. Operating Scenarios

The following is a description of the possible operating scenarios for integrating the CPS snowcat operations with the resort development.

Scenario 1

Under Scenario 1, the integration of CPS with the alpine resort operation would occur just as provided for in the agreements with the City of Revelstoke and the Province. In summary, snowcat skiing on Mt. Mackenzie would eventually be limited to the North Bowl only, and the master plan build out would not include lifts 13, 14, and 21 (lifts that are proposed for construction in the North Bowl). The integration of CPS with the alpine resort operation would be accomplished in two stages and would presumably correspond with the phasing of the resort development.

The first phase of resort development, which is projected to occur over a five-year timeframe, would result in a slight reduction in area available for snowcat skiing by CPS in its Zone 2 tenure area (an estimated reduction of less than 50 hectares, or less than 5 percent). This reduction in snowcat skiing terrain would occur two to three years following the beginning of construction. Otherwise, the CPS snowcat operation would function significantly the same way as it does today.

The second phase of resort development, which is projected to span the five years following Phase 1, would bisect CPS's access route between the North Bowl and Kokanee Bowl and would introduce lift service to the south-facing alpine areas currently utilized by CPS (Zones 2 and 3). Accordingly, in the second or third year of Phase 2 development of the resort, CPS snowcat skiing would be limited to within the North Bowl, or Zone 1 of the CPS tenure area and would no longer be available in Zones 2, 3, 4 and 5.

Phase 3 of the resort development would be altered to delay indefinitely the construction of lifts 13, 14 and 21, and CPS snowcat operations would continue as in Phase 2.

Scenario 2

The second operating scenario is one in which the Alpine Operator would buy out the North Bowl portion of the CPS Tenure (Zone 1) and CPS would move its operation entirely to Mt. Cartier (zones 6, 7, 8 and 9). In this case, the existing CPS base facilities would be replaced by the City of Revelstoke and/or the Alpine Operator as per the agreement with the City of Revelstoke. Under this scenario the Alpine Operator would have the option of terminating snowcat skiing on Mt. Mackenzie, the resort would be developed as proposed, and there would not be a need to integrate future resort operations with CPS.

If the Alpine Operator bought out CPS prior to the initiation of Phase 1 development, there would be no need to ever integrate resort operations with CPS (i.e., there would not be a time when both snowcat skiing and resort operations were occurring simultaneously). If CPS were bought out in later development phases, the integration between CPS and the resort operation in phases 1 and 2 would be identical to operating scenario 1. The Alpine Operator would be obligated to buy out the CPS operation prior to installation of lifts 13, 14, and 21 in Phase 3, which is projected to occur at least 10 years following the start of development.

According to this phasing schedule, CPS operations on Mt. Mackenzie could continue for ten or more years after initiation of the resort development. Afterwards, the CPS snowcat skiing operation would be relocated to its replacement tenure area on Mt. Cartier and terms of the prior rights agreements would go into effect.

2. Integration of CPS Operations and Resort Operations

The following operational plans would be implemented if the CPS operation is **not** acquired by the Alpine Operator.

The proposed development of the Upper Village displaces the CPS base facilities (day lodge, maintenance building and parking lots) within its long-term lease area (Lease Agreement 402957). In accordance with the City agreement, the City/Alpine Operator would fulfill the five obligations listed above for replacement of the CPS facilities and the CPS lease would be assigned to the City/Alpine Operator for inclusion in the resort development area.

The Phase 1 ski runs proposed in the current Master Plan above the 800-metre contour cross the main snowcat access road to the upper mountain snowcat skiing terrain. This road is used in winter for access to and from the upper mountain cat-skiing areas and in the summer by CPS for

trail and road maintenance. This road will be available to CPS for summer use, unless a new, better road is built for resort construction and maintenance, in which case CPS would be able to use the new road for its summer trail maintenance. In either event, CPS would be required to coordinate with resort operations regarding use of the road in order to avoid conflicts.

During the winter, CPS snowcats will be allowed to use this road (or a new road) for transporting skiers to and from the upper snowcat tenure area. However, use of this road by CPS will be limited to hours when the ski lifts are not running and skiers are not on the hill (e.g., before 8:30AM and after 5:00PM). For CPS skiers who arrive after the last snowcat travels up the mountain in the morning, they will be allowed to make one ride on a resort lift to meet the snowcat on the upper mountain. For CPS guests who desire to leave before 5:00PM, they will be allowed to ski down one of the resort ski trails. In the event of an emergency that causes the need to drive a CPS snowcat up or down the road during operating hours, this will be allowed with the appropriate precautionary measures (e.g., trail closure, proper warning signals/sirens on the snowcat, adequate signage, ski patrol or snowmobile escort of the CPS snowcat, etc.).

Once the snowcats have reached the snowcat skiing terrain on the upper mountain, they will **not** be allowed to travel on opened, resort operated ski runs. The proposed Phase 1 runs do not conflict with the scaled-back snowcat skiing operations described above. To allow snowcat access to both the upper drop-off for the North Bowl area, as well as terrain in Zones 2, 3, 4 and 5 without crossing resort operated ski runs, a new snowcat access road will be developed that avoids Phase 1 ski trails, as illustrated in Figure IV-1 (the proposed snowcat access road is located near the Lift 13 alignment). During Phase 1, snowcats will gain access to Zones 2 – 5 by climbing the new road segment near Lift 13, traversing to the existing snowcat access road near the top section of Lift 15 and descending to pick-up points to the southeast.

After Phase 1, and shortly following the start of Phase 2 development, CPS snowcat skiing on Mt. Mackenzie will be limited to the North Bowl. At that time, access to the upper North Bowl drop-off will be gained via the proposed snowcat access road, and the continued operation of CPS snowcat skiing on Mt. Mackenzie will be configured to prevent conflicts with the ongoing resort development.

Construction of lifts 13, 14, and 21 will be predicated upon an agreement being reached between the Alpine Operator and CPS that would lead to a termination of the snowcat skiing tenure in the North Bowl (Zone 1).

The termination of the snowcat tenure areas on Mt. Mackenzie (other than the North Bowl) is provided for in the prior rights agreements listed above. In this case, it is projected that the CPS snowcat skiing operation would be relocated to its replacement tenure area on Mt. Cartier.

3. Off-Piste Skiing/Boundary Management

Due to the proximity of CPS snowcat skiing terrain adjacent to the resort boundary, it will be necessary to manage for the prevention of resort guests from traveling outside of the CRA boundary for “off-piste” skiing within the tenure areas of CPS (and Selkirk Tangiers), thus tracking the fresh powder that guests of Selkirk and CPS have paid a high price to enjoy.

An operational objective of the project is to establish a means to prevent unauthorized travel of skiers outside of the resort boundary and into the preserved powder snow that lies within the tenure areas for snowcat skiing or helicopter skiing adjacent to the resort CRA boundary. The tenure areas for CPS and Selkirk Tangiers will be marked “out of bounds” for resort skiers. Skiers who are caught in or returning from out of bounds areas will be prosecuted in accordance with resort regulations and regional laws for backcountry skiing. To control unauthorized skiing outside of the CRA, ski patrol duty stations will be positioned along the ridge between the CRA and CPS/Selkirk tenure areas. The patrol duty stations will be positioned so that the entire length of the ridge is visible. At any location where lifts deposit guests directly at the ridge, a duty station will be located at the lift terminal to manage the boundary. Snowmobile access to a majority of the ridgeline will facilitate the ski patrol’s ability to manage unauthorized off-piste skiing outside of the CRA.

VI. RESORT COMPETITIVE ANALYSIS

A. INTRODUCTION

1. Background

In conjunction with the preparation of the Mountain Master Plan, SE GROUP has been retained by the project proponent to complete a resort competitive analysis for the Mt. Mackenzie proposal. A previous Market Assessment was completed for the project by Economic Research Associates (ERA) in December 1999. This study examined demographic and overall skier visit trends in the U.S., Canada as well as trends in British Columbia. The ERA analysis also quantified the available skier market in North America, interviewed European tour operators regarding existing and future destination trips to British Columbia and the Revelstoke area, and projected potential skier visitation at Mt. Mackenzie for the first thirteen years of the operation. Since the preparation of the Market Assessment by ERA, a number of conditions and factors have changed regarding the skier market and project definition/phasing.

Overall, British Columbia continues to be a leading force in skier visitation growth across Canada, growing faster than any other region in North America during the last decade. (National Ski Areas Association and Canada West Ski Areas Association) With Vancouver hosting the 2010 Winter Olympics, combined with the goal of the Provincial Government to double tourism in the next eight years through the new Heartland's Economic Strategy, the future is very bright for continued expansion of the ski industry in British Columbia, especially in the more undeveloped eastern part of the province. Additionally, the U.S. market has witnessed record skier visitation in two of the last three ski seasons, an indication that the lifestyle associated with skiing and winter sports is in a growth phase.

In concert with these positive market trends, the Mt. Mackenzie proposal has been revised to include a larger buildout of ski facilities and bed base while complying with the Commercial Alpine Ski Policy. Table VI-1 depicts the changes in ski area capacity through a comparison of the previous and current project phasing plan.

Mt. Mackenzie Mountain Master Plan
Table VI-1
Comparison of Proposed Skier Capacity
(1999 Proposal vs. 2003 Proposal)

	Phase I	Phase II	Phase III	Phase IV
Buildout (years)	5	10	15	25
1999 Proposed Capacity	3,300	6,600	9,500	-
1999 Skier Visit Projections (ERA)	81,070	-	501,087	-
2003 Proposed Capacity	4,810	7,220	10,210	17,050

While the ultimate project buildout under the 2003 proposal includes Phase IV, the proposed capacity under Phases I, II and III of both the 1999 and 2003 proposals are very similar. As a result, this Resort Competitive Analysis assumes that skier visitation projections from the previous Economic Research Associates study will apply through Phase III of the 2003 plan. The range of skier visit growth is shown in Table VI-1, estimating approximately 81,000 skier visits in the first year of operation and growing to about 500,000 visits during the fifteen year projection period. To put this in perspective, the proposed Tamarack Resort in Idaho (construction commenced in 2003) is projecting 379,000 skier visits in year 15 of operations, based upon a Comfortable Carrying Capacity of 7,200 skiers (SE GROUP, 2000). By comparison, Beaver Creek, CO and Deer Valley, UT achieved 550,000 and 450,000 skier visits, respectively, after 15 years of operation (Colorado Ski Country USA and Ski Utah). As currently proposed, the buildout of Phase IV of the Mt. Mackenzie project is projected to occur over a ten year period. Similar to any development project of this nature, the actual timing of improvements (supply) will coincide with actual visitation (demand). Consequently, the actual pace of development will be tied to the prevailing conditions over the project lifecycle.

2. Purpose for Resort Competitive Analysis

The Resort Competitive Analysis has been prepared to evaluate the potential competitive effect on other existing ski resorts within the eastern portion of British Columbia resulting from the development of the 2003 Mt. Mackenzie proposal. To determine what effect Mt. Mackenzie may have on other existing ski resorts, in the future, it is important to review and evaluate a number of key market indicators and variables. Accordingly, this study seeks to provide qualitative and quantitative information at a macro and micro level through evaluating broad skier market trends, identifying competitive factors at other resorts, providing data from other comparable situations and projecting potential impacts on skier visits at nearby competing

resorts. As noted previously, the Resort Competitive Analysis tiers to and updates information contained in the Market Assessment (1999) prepared by ERA.

B. SKIER VISIT TRENDS

The following section provides a review of historic visitation from the U.S., Canada, British Columbia and other provinces, regions and states. In all cases, industry experience shows that visitation trends are better measured over a longer-term, as year to year annual visitation comparisons can vary significantly due to weather, economics, world events and other regional variables. Historically, weather patterns have been the greatest influence on visitation, as the amount and quality of snow conditions is a primary force in driving higher levels of visitation.

1. United States Visitation

As noted in the recent Commentary – “The American Ski Industry – Alive, Well and Even Growing”, issued by the National Ski Areas Association (NSAA, 2003), current trends suggest that skiing is now in a rebound mode, breaking all time visitation records in 2000/2001 (57.3 million) and again in 2002/2003 (57.6 million). In fact, the last three ski seasons have produced the highest consecutive years of attendance in the history of the industry. These strong results suggest that the industry may have elevated its performance range to a new, higher level. Whereas in prior years skier visits varied from 46 million in a poor season to 54 million in a good season, the performance levels under what most would agree were challenging conditions (i.e., world events such as 9/11 and the outbreak of war) appear to have improved the past three seasons. The strong performance demonstrates the resiliency of the industry nationally to handle a variety of adverse conditions which in previous years may have had more serious outcomes, as well as an improved capability to capitalize on favorable snow conditions when they arise.

Overall, these gains follow the NSAA “Growth Model” campaign which was initiated in the fall of 2000. While each resort has its own unique niche and market, the underlying message is that demographics are changing and the industry needs to listen and respond. Certainly, one important aspect of future growth is focused on the rate of “trial and conversion” of skiers/boarders to life-long participants, not to mention the retention of existing skiers/boarders. This is top of mind in all sectors of the ski industry and has resulted in operation and facility improvements/changes to resorts throughout the country. During the past nine ski seasons (94/95-02/03), the US has seen an overall increase in skier visits of 9%, as shown in Chart VI-1.

The report indicates that “even a modest level of national market growth results in large increases in skier visits. A one percent per year national growth rate requires the equivalent of a new ski area the size of Winter Park, Colorado every two years.”⁶

Clearly, recent evidence shows renewed interest and growth in an industry that has witnessed national-level stagnation for many years. Future skier demand must be accommodated through the expansion of existing facilities and the development of new resorts.

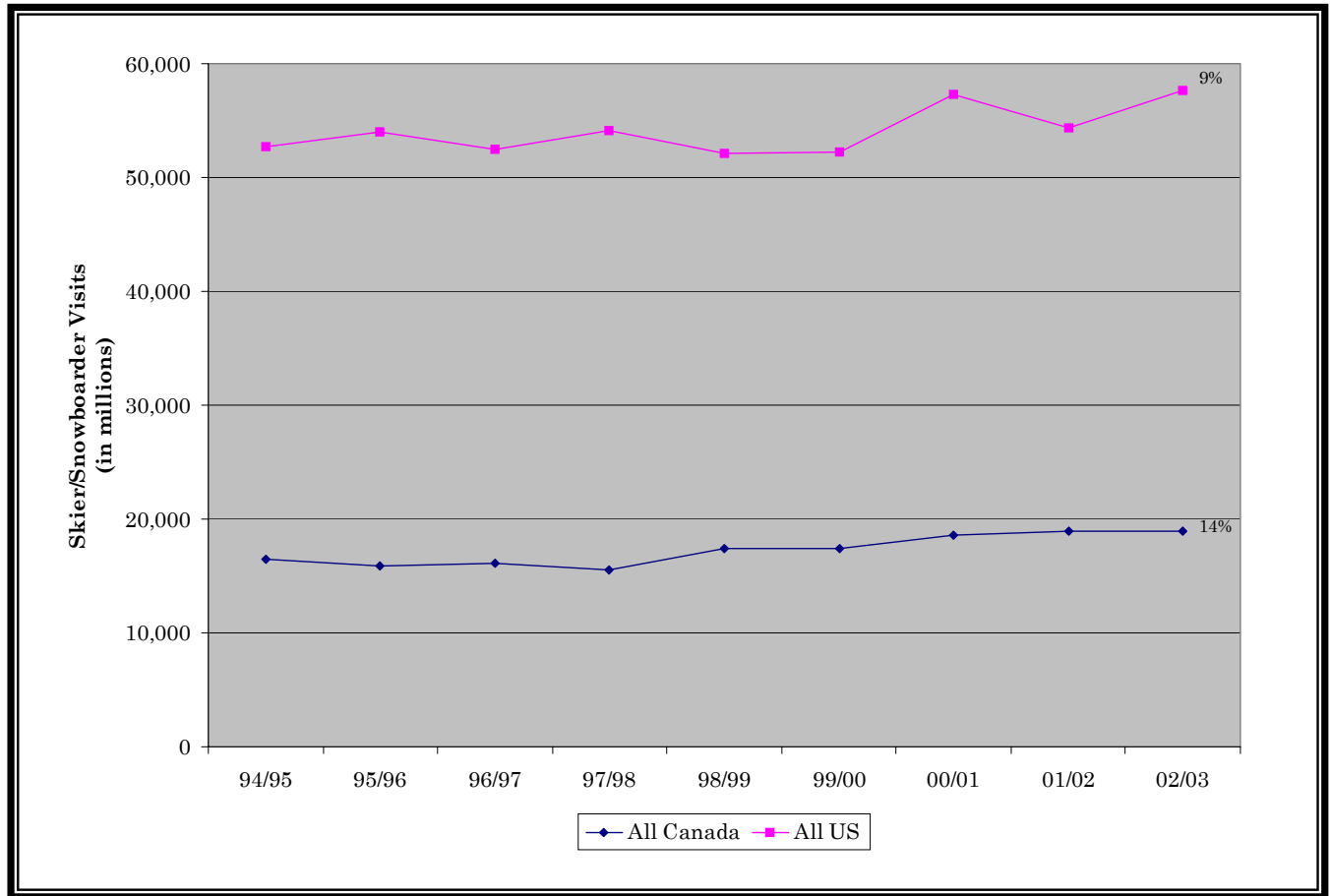
2. Canadian Visitation

As shown in Chart VI-1, Canada has seen an overall increase in visitation of 14% for the past nine ski seasons. During this period, British Columbia witnessed a 16% increase, slightly higher than Alberta (13%), as shown in Chart VI-2. This comes at a time when the number of Americans who are hitting the slopes in Canada is growing. In fact, 1998 marked the first time that Americans made more overnight trips to ski in Canada than Canadians traveled to the U.S. for skiing.⁷ Recognizing the opportunities associated with changing demographics and lifestyle preferences throughout North America, the Canadian ski industry has widely adopted the NSAA “Model for Growth”. As a result, the Canadian Ski Council is in the process of fostering future growth through improving the rate of “trial and conversion” for new entrants, as well as ways to retain existing participants. This program, whether adopted at a national, regional or localized (ski area) level, has shown great promise for growing the lifestyle of skiing/riding.

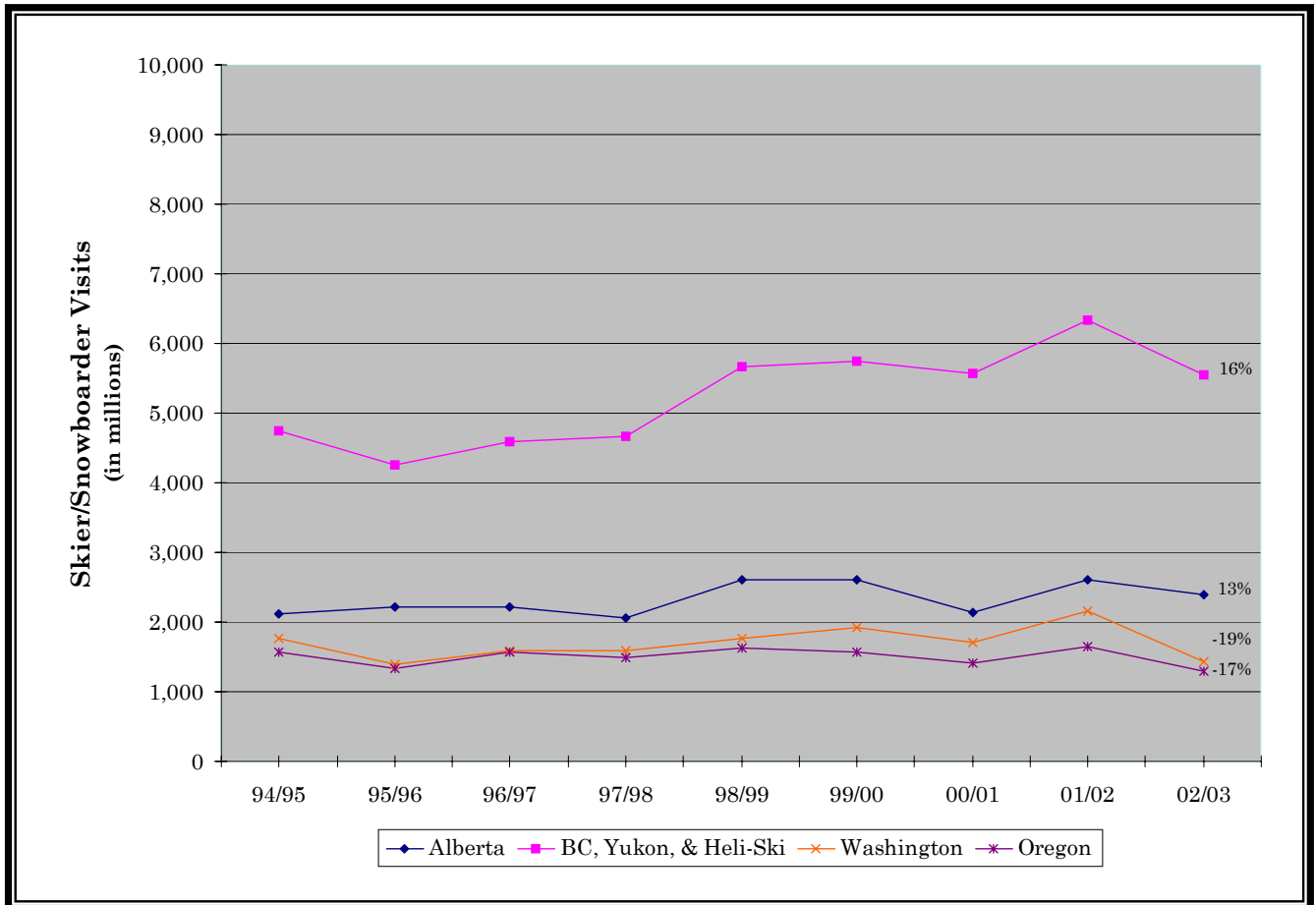
⁶ BBC Research and Consulting, 2003

⁷ Statistics Canada Catalogue 66-201

Mt. Mackenzie Mountain Master Plan
Chart VI-1
Alpine Skier/Snowboarder Visits (000's)
1994/95 – 2002/03



Mt. Mackenzie Mountain Master Plan
Chart VI-2
Alpine Skier/Snowboarder Visits (000's)
1994/95 – 2002/03



According to the recent Travel Activities and Motivational Survey, entitled “Interest in Downhill Skiing and Snowboarding”, July 2001, Canadians are 43% more likely to be classified as “Downhill and Snowboarding Enthusiasts” than Americans, and 27% more likely to be classified as having a moderate interest in downhill skiing and snowboarding than Americans. The research study also noted that Canadian participation in downhill skiing and snowboarding is more prevalent in Alberta, Quebec and British Columbia compared to other provinces. Additionally, British Columbia showed the highest percentage (11%) of population 18 years and over that is enthusiastic about skiing and snowboarding. This study indicates that there is a large and growing population of active skiers in British Columbia and neighboring Alberta.

A more recent study entitled “U.S. Alpine Ski Tourists – A Special Analysis of the Travel Activities and Motivation Survey” (2003), prepared for the Canadian Tourism Commission, profiles Americans who have taken ski trips to Canada. The study also presents an estimate of the likely market profile in 2025 with the intent of providing tourism planners with critical information about the products and services that may be required to attract future tourists from the U.S. Results of the study are summarized below:

- 21.4 million American adults over 18 years of age are classified as Alpine Ski Tourists, of which 4.6 million have recently traveled to Canada for skiing (in the past two years).
- Canadian resorts draw heavily from U.S. border states but U.S. Alpine Tourists are more apt to live in Tier III states – those most distant from the U.S./Canada border. Specifically, of the 4.6 million U.S. Alpine Tourists visiting Canada, 26% originated in the border states, 32% from Tier II states (15 states below the border states) and 43% from Tier III states.
- The Pacific Northwest is appreciably over-represented, with 27% of the alpine ski market. Washington State alone accounts for 1-in-10 skier visits to Canada. California represents 16% of the Alpine Ski Tourist market for Canada.
- Of the activities used to define Alpine Ski Tourists, downhill skiing had a 90% participation rate, ski packages for getaways and longer holidays (28%), snowboarding (17%) and heli-skiing (2%). Cross-country skiing and snowmobiling were two of the most popular “other” activities at 22% and 14%, respectively.
- U.S. Alpine Ski Tourists are very active recreational participants. Other outdoor activities included wildlife viewing (51%), hiking/backpacking (41%), cycling (37%), fresh water fishing (31%), motor boating (30%), white water rafting (22%), rock climbing (10%).

- By 2025, the population of Americans 18 years of age or older will grow from 200.4 million (2000) to 254.3 million, a 27% increase. While growing in absolute numbers, the structure of the population will change, with a decreased growth rate of people between 18-54 years and an increase of people 55 and above.
- Factoring demographic shifts, the total U.S. Alpine Ski Tourist market is predicted to grow from 21.4 million in 2000 to 25.7 million by 2025. The segment of the U.S. Alpine Ski Tourist that takes trips to Canada is predicted to increase from 4.6 million in 2000 to 5.7 million in 2025.
- The Pacific States (Washington, Oregon and California), a very important market for British Columbia, will have an increase in population from 30-44 million. Since alpine skiers traveling to Canada are heavily concentrated in the Pacific region, projected growth for this part of the U.S. should benefit Canada's alpine ski market and especially British Columbia, in the medium to long-term.

3. British Columbia Visitation

Over the past two decades, skier visitation has grown dramatically in British Columbia, from approximately 2.6 million (1983/84) to 5.5 million (2002/03) visits. In fact, British Columbia hit an all time record of 6.2 million visits during the 2001/02 ski season. Table VI-2 shows the increase in visitation in five year increments, taking average visitation for each five year period. Using the average visitation adjusts for good/poor snow years as well as other social and economic factors that influence annual visitation. Overall, the combination of expansion and upgrading of existing resorts and the development of new resorts, coupled with government sponsored tourism and resort development programs, has lead to impressive skier visitation growth, both in percentage and absolute numbers.

Mt. Mackenzie Mountain Master Plan
Table VI-2
British Columbia Skier Visit Trends: 1983-2003

5 Year Interval	Average Annual Visits	Increased Visits over prior period	Percent growth from prior period
1983-1988	2,742,339	-	-
1988-1993	3,581,284	838,945	30.6%
1993-1998	4,411,086	829,802	23.2%
1998-2003	5,689,940	1,278,854	28.9%

Source: Canada West Ski Areas Association.

¹ Includes skier visits for British Columbia and Yukon.

4. Comparison of Skier Visitation

Charts VI-1 and VI-2 illustrate the trend line for visitation growth for the U.S., Canada, Alberta, British Columbia and Washington/Oregon for the nine year period from 1994/95-2002/03. As shown during this period, growth of visitation in the U.S. has been 9%, 13% for Alberta, 14% for Canada, and 16% for B.C., -17% for Oregon and -19% for Washington. However, it should be noted that British Columbia, Washington and Oregon received record visitation during the 2001/02 ski season of 6.2, 2.1 and 1.6 million skier visits, respectively. These records were unfortunately followed by poor snow conditions in 2002/03.

To fully comprehend the impressive growth of the ski industry in British Columbia in recent years, it is important to compare the performance in British Columbia with other areas in the region as well as other large destination markets such as Colorado. Table VI-3 compares the skier visit growth in absolute numbers and percent change for the ten year period from 1992/93 to 2001/02.

Mt. Mackenzie Mountain Master Plan
Table VI-3
Change in Annual Skier Visits: 1992/93 to 2001/02¹

Area	Absolute Change	Percent Change
British Columbia	2,283,528	58%
Alberta	868,410	50%
Washington	376,829	21%
Oregon	194,216	13%
Colorado	34,841	<1%
¹ This ten year period was utilized as the 2001/02 season best represents current visitation demand in the Pacific Northwest during a year with good snow conditions.		

When comparing the absolute growth of British Columbia visitation with the other areas noted in Table VI-3, it is evident that these large increases are largely attributable to the continued development of the province as a ski destination. According to Statistics Canada, as of the 2001/02 ski season, British Columbia accounted for 45.3% of all foreign skier visits into Canada, with Alberta ranking second at 28.3%. Since the 1996/97 season, foreign visits to B.C. have almost doubled from 1,443,924 to 2,874,073 in 2001/02. The British Columbia share of foreign visitors has also increased from 37.3% in 1996/97 to 45.3% in 2001/02. According to BC Stats (Feb. 2001), 56% of all overnight visits made by American skiers to Canada were to resorts in British Columbia. This is an impressive figure when considering U.S. visits to the provinces of Quebec, Ontario and Alberta. Alberta shows similar results on a percentage basis, however, absolute growth of British Columbia skier visitation is over 2.5 times that of Alberta.

Conversely, the numbers also illustrate that the mature Colorado market has seen no growth as other destination markets in North America have developed. It is also important to note that Washington state exports a significant number of skier visits throughout British Columbia while it continues to grown on its own.

Table VI-4 shows skier visits for British Columbia, Alberta, Washington and Oregon, individually and in the aggregate.

Mt. Mackenzie Mountain Master Plan
Table VI-4
Visitation and Market Share Comparison

Province/State	1992/93	Market Share	2001/02	Market Share
British Columbia	3,969,241	44%	6,252,769	49%
Alberta	1,731,084	19%	2,599,494	21%
Washington	1,774,715	20%	2,151,544	17%
Oregon	1,462,142	16%	1,656,358	13%
Total	8,937,182		12,660,165	

Source: Canada West Ski Areas Association and Pacific Northwest Ski Areas Association

Between 1992/93 to 2001/02 overall growth of visitation in these markets was 42%, increasing from 8,937,182 to 12,660,165 visits. British Columbia captured 61% of the overall growth while increasing market share from 44 to 49%. These facts demonstrate that British Columbia is definitely becoming more and more recognized as an important ski destination that competes favorably with other North American regions.

5. British Columbia as a Ski Destination

Throughout the 1990s and beyond, British Columbia resorts have continued to make substantial investments in year-round facilities and real estate. The most recent “1999/2000 Ski Season Review”, published by British Columbia Assets and Land Corporation, indicated mountain resorts invested just over \$52 million, compared to just under \$100 million in the 1998/99 period. As the ski areas continue to invest in ski-related projects and develop non-ski amenities as well, both skiers and non-skiers will be attracted to the region and the industry economy will continue to expand. The further development of British Columbia as a destination ski market is fully supported by the Provincial government. Previous projects such as the Commercial Alpine Ski Policy and Mountain Resort Association Act have been implemented to assist ski areas in gaining a greater share of the destination ski market.

Hosting of the 2010 Winter Olympic Games in Vancouver is another investment that will yield tremendous worldwide visibility to British Columbia skiing and general tourism opportunities. Such an event will provide added visibility and continued long-term opportunities for British Columbia as a ski destination.

Recently, the British Columbia government initiated the Heartlands Economic Strategy (2003) with a focus on revitalizing the economy of rural and northern communities that are the heart of the province's economic strength through the development of strategies that will open up the heartland of the province and make sure that industries such as forestry, agriculture, tourism, energy and fishing continue to provide jobs and a future in communities throughout British Columbia.

In the tourism sector, the vision is "to develop new tourism opportunities and meet our target of doubling British Columbia tourism by 2010." This will be accomplished by increasing marketing efforts in nearby regions, such as Washington and California, as well as contributing \$1.2 million to regional tourism organizations to specifically market Heartlands destinations. Additionally, in order to further promote British Columbia's World-Class-All-Season Resorts, the province has formed a British Columbia Task Force to, 1) work with resort operators, communities and First Nations to promote B.C. as a world-class resort destination, 2) increase jobs and opportunities at British Columbia resorts, including ski destinations and 3) help ensure every region gets maximum benefit from hosting the 2010 Winter Olympic Games.

One specific transportation infrastructure investment that was initially identified will provide improved vehicular access to Mt. Mackenzie from the Calgary area (upgrading the Trans-Canada Highway through the Kicking Horse Canyon).

Based upon the target of the Heartlands Economic Strategy to double tourism by 2010, it is important to put this in context with visitation from other states and provinces. Table VI-5 compares skier visits to population. In the case of Colorado, skier visitation exceeds population by a factor of 2.52, an amount that is noteworthy for "the center of U.S. skiing". Utah, another destination market, but with fewer resorts, has a ratio of 1.24. British Columbia shows a healthy 1.60 ratio which points to its increasing dominance in the destination skier market. Conversely, those areas that do not have a destination component, such as Washington, Oregon and California, show ratios of .36, .48 and .21 respectively. Certainly, resident populations in British Columbia, Oregon and Washington have been shown to have a similar propensity to ski.

Achieving the Heartland Economic Strategy of doubling British Columbia tourism by 2010, would likely place British Columbia in a similar position as Colorado, with a ratio of around 2.5 based upon 12 million skier visits and a projected population of approximately 4.8 million. In summary, British Columbia is poised to accommodate such growth as the resource and infrastructure base, as well as government sponsored tourism opportunities, are presently in place.

Mt. Mackenzie Mountain Master Plan
Table VI-5
Comparison of Skier Visits to Population

State/Province	Population ¹	Skier Visits ²	Ratio
Utah	2,269,789	2,806,819	1.24
Colorado	4,417,714	11,146,131	2.52
British Columbia	3,907,738	6,252,769	1.60
Alberta	2,974,807	2,599,494	.87
Washington	5,987,973	2,151,544	.36
Oregon	3,472,867	1,656,358	.48
Montana	904,433	1,198,763	1.33
California	34,501,130	7,341,481	.21
Source: U.S. Forest Service, Colorado Ski Country USA, Ski Utah, Canada West Ski Areas Association and Pacific Northwest Ski Areas Association			
¹ Census Data based on 2001.			
² Skier visits based on 2001/02			

One of the most important components of the Canadian Alpine Ski Policy is the provision for developing real estate bed units in proportion to planned ski area development and expansion through the Master Planning process. At a time when the demand for second-homes has been at an all-time high, and will continue at such a pace for the next decade, British Columbia resorts have been able to develop residential properties to serve the market need. These bed-units have created loyal customers and provide hot-beds for destination visitors. Real estate at British Columbia resorts has also become an attractive investment opportunity for many residents of the U.S. due to the benefit of the strong dollar. Additionally, Washington and Oregon do not have any ski resort/real estate investment opportunities due to restrictions of use on Federal Land, thereby creating additional pressure for Washington and Oregon residents to look to British Columbia for ski area real estate investment opportunities.

C. COMPETITIVE ANALYSIS

1. Introduction

There are numerous factors and variables which ultimately affect the performance and success of Mt. Mackenzie and its direct competitors. For each resort, competitive factors include access, total vertical rise, terrain distribution, quality of snow conditions, lift and facility infrastructure location, selection and quality of lodging, quality of guest services provided, community character, pricing, complementary recreational amenities, marketing, and other related features. Mt. Mackenzie will compete for skier visits within the local, regional and destination markets, as noted below.

2. Local Market

The existing Mt. Mackenzie ski area caters primarily to local skiers and generates about 15,000–20,000 skier visits annually. Since the next closest ski areas are Kicking Horse in Golden (1 ¾ hours) and Silver Star in Vernon (2 hours), Mt. Mackenzie is extremely important to local skiers. The proposed development of Mt. Mackenzie will continue to attract local residents and visitation will increase over time based upon the growth and development of the Revelstoke community. This will occur as a result of new residents moving into the area to work and live in the resort community. Currently, due to the limited facilities at Mt. Mackenzie, some residents of Revelstoke travel to ski at other ski facilities such as Silver Star or Kicking Horse. With the development of Mt. Mackenzie, it is projected that resorts such as Kicking Horse and Silver Star would realize a nominal reduction in skier visits (less than 1%), as residents of Revelstoke would be more prone to ski at the Mt. Mackenzie resort.

3. Regional Market

Calgary-Vancouver

Regional ski areas and resorts typically draw skiers from within a 5-hour driving radius or approximately 250 miles. Market research indicates that most people are willing to drive long distances if the amount of time spent getting to their destination is small in relationship to the length of their stay. For this reason, skiers within the regional market typically travel to regional ski areas for long weekends or a three or four-day visit. In order to attract these visitors, regional areas must provide on-site lodging or be located near existing overnight accommodations.

Examples of regional ski resorts serving the Vancouver market include Sun Peaks, Silver Star, Apex and Big White. From the Calgary market, British Columbia regional areas include Fernie, Panorama, Kicking Horse, and Kimberly.

From a regional market perspective, numerous intervening opportunities exist to the west and east of Mt. Mackenzie. As a result, British Columbia resorts such as Sun Peaks, Silver Star, Big White, Kicking Horse and Panorama will continue to compete with one another for this market segment. While a nominal number of visitors may bypass the existing resorts, the majority of regional visitors will view Mt. Mackenzie as too remote and distant from the regional market. Accordingly, in a continually growing market, the development of Mt. Mackenzie is not projected to materially impact the growth of regional skier visits at the existing resorts.

Eastern B.C. – Western Alberta

The eastern portion of lower British Columbia is divided between the Thompson-Okanogan and B.C. Rockies region. At a macro scale, all the resorts in the eastern part of the province stand to benefit from the continued support for tourism development by the provincial government, especially as part of the new Heartlands Economic Strategy.

The Calgary area boasts a large and active skier population that makes day and overnight trips to resorts located in the Rocky Mountains, eastern B.C., northern Montana and elsewhere. The Banff-Lake Louise resorts of Alberta, located in Banff National Park, are key intercept opportunities for skiers from the east. These resorts include Lake Louise, Sunshine Village, Marmot Basin and Mount Norquay. Fortress Mountain and Nakiska are also popular areas close to Calgary. These two resorts are located outside of Banff National Park.

The Rockies and their attractions, including ski resorts, have gained world-wide recognition for their beauty, high quality ski environment and numerous recreational opportunities. However, the resorts located in Banff National Park are constrained in terms of development opportunities and amenities due to Parks Canada development and operational policies and guidelines. While the ski area operators have continually challenged Parks Canada's policies, development restrictions will continue to be enforced in the National Park. Recently, the Alberta Economic Development produced a report entitled "The Economic Impact of Downhill Skiing at Alberta's Rocky Mountain Ski Resorts", (Price Waterhouse Coopers, February 2000). The intent of this report was to demonstrate to Parks Canada the economic contribution made by these resorts.

According to the report, of the 1.66 million skiers visiting the Alberta Rocky Mountain ski resorts during the 1998/99 season, 50% originated from Alberta, 23% from overseas, 7% from the U.S. and the remaining 20% from other Canadian provinces. Destination visits to these resorts now represents 35% or more of the total skier visits, up from 21% in the 1990/91 ski season. Clearly, this area has continued to grow as a popular destination, however, the Parks Canada policies are presenting an upper limit which will likely constrain future visitation by the destination market.

The study concludes that many of the other Canadian ski resorts have been able to make significant upgrades and expansions that are on the cutting edge of the competitive ski resort industry, adding new lifts, accommodations and town centres to satisfy the demands of skiers. Conversely, Alberta Rocky Mountain ski resorts have been hindered in their ability to develop and expand by restrictive government policies, thereby limiting their potential in this increasingly competitive marketplace.

Based upon the development restrictions placed on these important Rocky Mountain resorts, coupled with general population growth of the Calgary area and further increases in destination visitors, it is apparent that within the next decade, both local residents and destination visitors will seek other opportunities. Clearly, resorts in the British Columbia Rockies area such as Kicking Horse, Panorama, Kimberly, Fernie and Mt. Mackenzie will benefit from this situation in the long-term.

4. Regional/Destination Market

A destination resort is one that can attract skiers for mid-week vacations and longer duration visits. While proximity to a large population base is beneficial, the most important factor for a destination resort is accessibility, either by air, automobile or combination. In the case of the Pacific Northwest Region, many of the ski areas throughout British Columbia serve the regional/destination market. Residents from Washington, Oregon, Idaho, Montana, British Columbia and Alberta travel to resorts such as Whistler, Sun Peaks, Mt. Washington, Panorama, Big White, and Fernie, for vacations and holidays that typically extend 5-7 days. Outside of traveling to Canada, Washington and Oregon residents frequently drive to distant regional/destination resorts such as Sun Valley, Mt. Bachelor, and Schweitzer, for longer visits.

Mt. Mackenzie will provide another option for the drive-to regional/destination visitor, although these visitors will have to travel one or more hours beyond the existing resorts, placing Mt. Mackenzie in a locational disadvantage. Some of the remote location/access constraints may be compensated by resort features such as vertical rise, ski facility design, village complex, selection of lodging, proximity to Revelstoke, and other recreational offerings. However, the ultimate degree of “competitiveness” in this situation will be dependent upon the pace of development at Mt. Mackenzie as well as new features offered at existing resorts.

Based upon the historical growth of skier visitation in British Columbia, coupled with new strategies to double tourism and skiing in the province (i.e. Heartlands Economic Strategy), 100,000 skier visits generated from within the regional destination market at Mt. Mackenzie would potentially cause a .08-1.0% reduction in skier visits at competing resorts in the initial years (2-5). Depending upon each resort’s ability to undertake improvements and expansion in order to cater to current market demand, some competitive operators could witness greater reductions in visitation or continued visitation growth. Individual resort effects will be market driven in a market that has exhibited strong growth potential.

Mt. Mackenzie will rely on the destination fly-in market, with the majority of visitors accessing the area through the Kelowna International Airport with car rentals, shuttle and bus service to the Revelstoke area. This type of access is similar to Telluride, Colorado where the majority of visitors access the area from Grand Junction, Colorado (2.5 hours) or Montrose, Colorado (1.5 hours). A small portion of guests fly into the Telluride Airport, although it has a limited commercial aviation schedule. At a remote resort such as Telluride, over 70% of the visitors fly into the area. Trends have shown that more people rely on air transportation to reach unique resorts.

Another example of a situation similar to Mt. Mackenzie is the proposed Tamarack Resort in Idaho. Tamarack is currently under construction and includes a ski facility with a Comfortable Carrying Capacity of 7,200 skiers, an 18-hole Robert Trent Jones II golf course, a mountain village and residential properties, all nestled between a 3,000 foot vertical mountain and a large lake. The resort is being marketed in the Pacific Northwest as a drive to regional/destination similar to Sun Valley, as well as a destination in the national spotlight. Flight access will be through Boise which is 2.5 hours from the resort. As the first new destination resort in the U.S. for many years, Tamarack is enjoying early success with real estate pre-sales and purchase commitments.

The current cat skiing operation on Mt. Mackenzie attracts visitors from outside the area. According to the “Revelstoke Area Recreation Inventory” prepared for the Revelstoke Community Futures Development Corporation (Future Legacy Consulting Group, July 2000), 51% of the snowcat guests are Canadian (Alberta and B.C.), with 41% coming from the U.S. and 7% from international locations. With several operations, heli-skiing is also a popular recreational pursuit in the Revelstoke area. Canadian Mountain Holidays has five separate operations in the area and Selkirk Tangiers Heli-Skiing also has a large operation in the area. Approximately, 70% of participants are from the U.S., 20% from Europe/Asia and 10% from Canada. Revelstoke has become the “center” for heli-skiing in Canada and is already well known throughout the U.S. and European community. The existing reputation of the area will help to quickly establish Mt. Mackenzie as a new destination resort.

Based upon the Recreational Inventory, the Revelstoke area has an abundance of other recreational activities that attract visitors from throughout North America and other more distant locations. In combination, the history of skiing and overall reputation of the Revelstoke area as a tourist area will highlight the destination qualities that are so important in attracting new visitors to the eastern portion of British Columbia. Additionally, as existing resorts continue to upgrade and expand, and new resorts like Mt. Mackenzie are developed, British Columbia and especially the eastern portion of the province, will further benefit from market synergy. Typically, market synergy is created when complementary ski experiences are offered in close proximity, leading to benefits for all proximate resorts. In a market study for the proposed Pelican Butte resort in Klamath Falls, Oregon (Sno.engineering, 1990), ski area operators surveyed felt that having multiple ski areas was, if anything, beneficial since each tends to target a certain submarket of skiers. This is evident in other markets as well, including the Colorado, Utah, and Lake Tahoe areas, where resorts benefit from market synergy while catering to unique niches.

National and regional skier surveys also indicate that skiers seek variety, and therefore, travel to various destinations during the ski season or during a vacation when the areas are in close proximity. In the case of the Colorado destination market, 40% of people surveyed are first time visitors to any number of popular resorts (RRC, 2003), indicating that stimulating a continuous supply of new visitors is very important for destination ski resorts. While the majority of visitors (over 80%) have skied in Colorado before, this finding speaks to the tendency of skiers to enjoy visiting new places and “skiing around” at various different ski areas.

During the last decade, significant skier visit growth has occurred at destination resorts that have undergone major mountain expansion plans in conjunction with the development of real estate. In the Colorado skier market, which has remained relatively flat for the last ten years, Beaver Creek has enjoyed substantial growth in conjunction with mountain expansion and real estate development. As shown in Table VI-6, Beaver Creek has increased skier visits by 42% over the last decade. The resort has benefited from its proximity to Vail, as well as the development of the Eagle County Airport, including direct flights from major cities.

Mt. Mackenzie Mountain Master Plan

Table VI-6

Skier Visitation Growth at Select Western Destination Resorts

Resort	1993/94	2002/03	Percent Change
Beaver Creek, CO	504,516	718,000	42%
Telluride, CO	300,388	375,000	25%
Jackson Hole, WY	272,954	373,528	37%
Canyons, UT	108,000	260,000	141%

Source: U.S. Forest Service, Colorado Ski Country USA and Ski Utah

Similar to the Beaver Creek example, the Canyons, located in Park City, Utah has benefited from market synergy created from its Salt Lake/Park City neighbors (Deer Valley, Park City Mountain Resort, Snowbird, Alta, Brighton and Solitude). Based upon a significant mountain and real estate expansion, the Canyons has witnessed a growth rate of 141% over the past decade, transforming itself from a small local area to a major destination resort.

Jackson Hole and Telluride are two destination resorts that have similarities to Mt. Mackenzie. Both Jackson Hole and Telluride have benefited from their “far and away” remoteness, physical/environmental characteristics, and unique community character. During the last decade, these resorts have undertaken tremendous mountain improvements and expansion as well as undergoing large real estate development projects. Despite the remoteness of these areas, both Jackson Hole and Telluride have witnessed visitation growth rates of 37% and 25%, respectively. Unlike the examples of Beaver Creek and the Canyons, Jackson Hole and Telluride have not benefited from market synergy. In order to cater to the destination market, these and other stand-alone resorts, in conjunction with local communities, have subsidized enplanements to nearby airports in order to attract new visitors. These programs have been a major component in the long-term success of more isolated resorts.

The eventual success of Mt. Mackenzie in the destination marketplace will be focused on attracting new skiers from the broader destination marketplace, including Canada, the U.S., Europe and Asia. This will be achieved by benefiting from the future market synergy created by all British Columbia/Alberta resorts, building on the existing visibility of Revelstoke as a destination unto itself, continued growing demand for skiing and visiting four-season resorts, developing partnerships with the airline and other transportation carriers, and marketing the unique aspects of the resort. Clearly, as demonstrated in the case of Jackson Hole and Telluride, remoteness, when coupled with superlative natural beauty, can become a major asset in the formula for success. Simply stated, Mt. Mackenzie is unlike any other four-season resort development in British Columbia. Accordingly, skier visitation growth at Mt. Mackenzie will not occur at the expense of surrounding ski areas, as the proposed resort will tap into a much greater target market. In fact, the presence of a major new resort in eastern British Columbia will more likely become a stimulant to further growth by all the surrounding areas.

D. SUMMARY

The British Columbia ski industry has experienced impressive growth in the last two decades, sponsored by provincial tourism programs, the Commercial Alpine Ski Policy, private investment and growing market demand. In fact, skier visitation to British Columbia has grown faster than any other area or region of North America and is reminiscent of the growth that Colorado experienced in the 70's and 80's. This report has identified numerous positive indicators related to future growth trends at the international, national, regional and local levels. These positive findings, coupled with ongoing developments specific to skiing in British Columbia (i.e. hosting the 2010 Winter Olympic Games and the continued support for growing tourism through the new Heartlands Economic Strategy), will lead to further growth of resort development and skier visitation in the next 10-15 years.

From the competitive perspective, this study has illustrated that Mt. Mackenzie will draw skiers from the local, regional and destination markets. The analysis shows that the development of Mt. Mackenzie would cause a nominal reduction in skier visits (less than 1%) at nearby resorts such as Silver Star and Kicking Horse, as local residents would no longer travel to other larger areas. In the regional market, the remote location of Mt. Mackenzie, combined with numerous intervening opportunities, will deter many skiers from traveling beyond the existing resorts that serve Vancouver and Calgary. As a result, it is not expected that Mt. Mackenzie will impact the continued growth of regional skier visits at the existing resorts which continue to compete for a

share of the market. In the broader regional/destination market, the analysis shows that competition from Mt. Mackenzie could potentially cause a .08-1.0% reduction in skier visits at competing resorts in the initial years of operation (2-5 years), all dependent upon what other operators do to grow the market and the specific niche that each area focuses on. Examination of the destination market reveals that there is ample opportunity to develop a unique destination niche that is attractive to visitors throughout North American and overseas.

Based upon current British Columbia visitation of 6.2 million skiers, the initial year of operation (80,000 visits) would represent 1.3% of the total skier market. This is a nominal share in an expanding market. Based upon visitation projections of 500,000 for Mt. Mackenzie after 15 years of operation and growth of the British Columbia market to 12,000,000 skier visits, the resort would represent about 4.2% of the total market. In summary, the growing market that is characteristic of British Columbia, now and in the future, should be able to absorb the development of a new resort without any negative effect on other resorts that will share from the benefits of the marketplace.

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