All Season Resort Guidelines

Chapter II:
Mountain Resorts

Prepared for:
Mountain Resorts Branch
Integrated Resource Operations Divison,
Ministry of Forests, Lands and Natural Resource Operations

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Section 11.7 only of this document was amended November 2009. Any references to the Ministry of Tourism, Sport and the Arts (MTSA) or the Tourism and Resort Development Division within the document are from the original document dated March 2006. References to the Ministry of Tourism, Culture and the Arts (MTCA) from the November 2009 amendment now refer to the Ministry of Forests, Lands and Natural Resource Operations, Mountain Resorts Branch.

Foreword

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Brent Harley and Associates Inc. – The Resort Planning Group wishes to thank the members of the review committee who provided valuable insight and effort in establishing the All Season Resort Guidelines. By building on the committee's wealth of experiences, these guidelines are designed to further optimise British Columbia's potential as a world-class tourism destination.

We also wish to thank Michel Beaudry of Michel Beaudry Communications for his writing skills, resort insights, and his content and "fresh eyes" contributions.

Land and Water BC, the Crown Corporation in charge of disposing of Crown land within the Province of British Columbia has been dismantled. The newly created Tourism and Resort Development Division within the Ministry of Tourism, Sport and the Arts will now be the single point of contact for resort development. This will result in a more streamlined approvals process.

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II.1 BACKGROUND

II.1.1 Alpine Skiing Based Mountain Resorts

For nearly half a century, mountain tourism and ski area development have been synonymous in British Columbia. And during that time, the province's reputation among skiers and snowboarders has soared. Whether Whistler or Sun Peaks, Big White, Fernie or Kicking Horse, BC's mountain resorts are now emerging as some of the most exciting in the world.

Much of that success can be attributed to BC's Commercial Alpine Ski Policy (CASP), a groundbreaking piece of legislation introduced in the late 1970's. Designed to provide direction both for ski area development proponents and government representatives, CASP, and the subsequently written Ski Area Guidelines, played a vital leadership role in the province's development as a purveyor of world-class winter downhill sports and facilities.

While lift-based skiing and snowboarding will continue to dominate the mountain resort business – at least for the foreseeable future -- the 21st century is revealing a whole new range of opportunities and challenges for the prospective resort developer. For today's mountain visitors are searching for resort experiences that offer a much broader spectrum of high-country activities than in the past. And once they've found a resort they like, they want to return to it year-round. Across the province, former "ski areas" are now successfully transforming themselves into four-season destinations where hiking, mountain biking, wildlife viewing and golfing attract as steady a clientele in the summer as skiing does in the winter.

Mountain play is the operative phrase now. All-season mountain play. From the Lower Mainland to the Rockies, from Osoyoos to Mackenzie, BC is blessed with a network of alpine playgrounds that has few equivalents on the planet. Which means that those resort developers who know how to harness the province's potential for year-round mountain fun are likely to be rewarded for their efforts.

As in the past, the structure of the new Guidelines adhere to the requirements defined within the updated Commercial Alpine Skiing Policy. Moving in stages from the Vision to the Concept to the Master Plan, the Guidelines provide a detailed analysis of the Policy's objectives and stipulations at each step of the resort development process. In a move to make the process more accessible to a wider range of resort proponents, these new Guidelines offer a more graduated approval system, where the requirements become increasingly more complex and demanding as the proponent moves through the approval stages.

RED RESORT

TODAY'S MOUNTAIN VISITOR IS SEARCHING FOR A RESORT EXPERIENCE THAT OFFERS A BROAD SPECTRUM OF HIGH-COUNTRY ACTIVITIES.

Big White

These Guidelines are intended for use by developers and government staff, to assist in the process of planning and evaluating all-seasons resort proposals and expansions on Crown land.

II.1.2 Alternative Mountain Resort Models

It wasn't that long ago that the mountain resort business was all about summer traffic. Whether to hike, climb, paint, or write – or simply to bask in the clean fresh air of the high country – the Victorians who "invented" mountain tourism (at least in its modern incarnation) had no intention of travelling to the Alps during the winter months. For them, the mountains were a greatly appreciated refuge from the summer heat and pollution of England's Industrial Revolution.

Much has changed since then. But in an interesting twist on the old déjà-vu scenario, 21st century visitors are quickly rediscovering the mountains' unique charms during the summer months. And while it's true that the conventional lift-serviced winter resort model in BC is in no danger of being overtaken by other-season development anytime soon, it is increasingly apparent that there are significant opportunities for creating alternative models with a summer theme as dominant focus.

BC has all that's required to become a leader in all-season mountain resort development. Given the province's natural attributes – its abundant lakes and beaches, its forested slopes, and relatively accessible peaks – one can easily envision a thriving summer mountain resort business here in years to come. However, to be successful, these resorts require a different approach to planning and capacity determination. In an effort to address some of these new issues, the updated Guidelines have provided for a new bed-unit calculation (see Section II.7.2) for mountain resort models that differs from the traditional alpine skiing model.

NOTE: While developers of mountain resorts without lift-serviced access to the high country need not concern themselves with those sections of the Guidelines that deal with uphill transportation and ski trails, they are still subject to the rules that regulate base area development (as per CASP and the Guidelines).

II.1.3 Commercial Alpine Skiing Policy

Mountain resorts operate on both Crown land and private land in British Columbia. The Tourism and Resort Development (TRD) Division of the Ministry of Tourism, Sport and the Arts (MTSA) administers crown land operations. TRD is responsible for implementing the Commercial Alpine Skiing Policy (CASP) and managing mountain resort tenures.

The approval process for mountain development (Commercial Alpine Skiing Policy Review, Environmental Assessment, and Community Planning) is to be overseen by the Executive Director of TRD. During the initial stages of their planning, parties interested in mountain resort expansion or development of new areas are encouraged to contact the Tourism and Resort Development Division in Kamloops for preliminary discussions.

Crown land, under the jurisdiction of TRD, can be made available for community and commercial mountain

development governed by the Commercial Alpine Skiing Policy (CASP). As stated in that policy:

> "The provision of Crown land for alpine skiing facilities is intended to support the provincial goal of expansion of employment, revenue and recreational opportunities. Further, the strategic objectives of CASP are:
>
> - To provide for orderly, rational development and use of Crown land for commercial alpine ski purposes;
> - To minimize environmental conflicts and encourage continued compatible resource use on Crown lands; and,
> - To provide a fair return to the Crown for the use of public land."

II.1.4 Purpose of the Mountain Resort Guidelines

In support of the above, the Mountain Resort Guidelines document was designed to encourage and foster well-balanced, environmentally sensitive mountain resort development that responds to the needs and expectations of the marketplace while having a positive social and economic impact on the community, region and province.

In addition, the Mountain Resort Guidelines should:

- Act as a public document to complement the Commercial Alpine Skiing Policy, for use by the province, regional districts and local governments;
- Act as a guide to prospective mountain resort developers on both public and private lands, establishing criteria for the creation of their proposals as well as a process from which to approach development;
- Provide evaluation criteria for Mountain Resort Expressions of Interest (EOI) and Development Proposals, that enable methodical review without stifling creativity and new approaches to development;
- Provide a methodology for consideration of mountain activities (skiing, snowboarding, backcountry touring, Nordic skiing, snowshoeing, tubing, etc.) on Crown land where it is deemed in the public interest and meets the requirements of all provincial agencies;
- Ensure that these activities are the highest and best use of the subject area;
- Ensure that the development is environmentally sustainable and economically viable;
- Provide a process for the creation and evaluation of Mountain Resort Master Plans, and;
- Assist in the development of new and expanded resort facilities within the province while recognizing that the

province's existing resorts constitute the foundation of British Columbia's newfound success in destination tourism and should also be carefully nurtured.

II.1.5 The Approval Processes

II.1.5.1 Overview

BC's All Season Resort Policy (the umbrella document for the CASP) states:

"The … Guidelines are to be used in conjunction with this [ASR] Policy. These Guidelines are intended for use by developers and government staff, to assist in the process of planning and evaluating all seasons resort proposals and expansions on Crown land."

Under the Ministry of Lands, Parks and Housing Act, the Commercial Alpine Skiing Policy was designed to evaluate and regulate development of mountain resorts on Crown land. Structured to work in tandem with the updated CASP, the new Guidelines should act as a baseline reference to assist with planning and approval for all stages of the process. **(For more details on the approval process please consult Chapter I: Introduction)**

II.1.6 Capacity, Balance and Impact

To initiate the development process, proponents must develop and share their mountain resort vision. This means providing a description of the desired character, size, type and scale of the project they propose to build. While defining the development's goals and objectives, this vision will also act as a baseline to determine the capacity of a particular site to support the proposed project. Capacities come in many forms:

- Environmental capacity of the study area to support any development;
- Comfortable Carrying Capacity (CCC) in terms of alpine skiing facilities (as well as additional feature facilities) for all resort visitors per day;
- Balanced Resort Capacity (BRC) in terms of overall visitor numbers based on both on-mountain and base area facilities and services;
- Seasonal Capacity in terms of all visitors per season;
- Annual Capacity in terms of all visitors per year;
- Base area capacity to meet the needs and expectations of mountain resort visitors;
- Highway capacity to deliver customers to the resort;
- Infrastructure capacity to accommodate the demand for water, sewer; and power,
- Market capacity to support the resort;
- Off-season development capacity to enable year round use of the resort.

Once the various capacities of a prospective mountain resort development have all been brought into balance, the physical limits to growth have been defined.

The challenge is to bring these capacities into a balance with one another.

For example, a particular project may have a large capacity to support alpine skiing, Nordic skiing, backcountry touring and/or snowshoeing. However, if there is insufficient capacity in the base area to provide for the necessary staging facilities, parking and infrastructure, there is no point in proceeding with a design for a plan that maximizes the on-mountain development potential.

Conversely, if a site has excellent potential for base area and resort residential development, with a capacity that far exceeds the number of users the mountain's facilities will ever be able to comfortably accommodate, the BRC of the mountain facilities must be the determining factor in defining the amount of acceptable development for the base area.

Likewise, the planning and design of "other-season" attractions at the same resort should always be done to establish the same overall balance between the attractions and the base or staging facilities. All effort should be made to effect efficient development that avoids duplication and single-season use.

Once the various capacities of a prospective mountain resort development have all been brought into balance, the physical limits to growth have been defined. This then becomes the baseline for the establishment of a phased development process that, in turn, enables the determination of the resort's capacity to support the development in light of distances to market and competition. Subsequently, the economic feasibility of the mountain resort development can be calculated.

Grouse Mountain

II.1.7 Types of Mountain Resorts

Former Ski Area Guidelines listed six types of resorts. In an effort to simplify the new Guidelines, the number of Mountain Resort Types has been reduced to three. These are:

1. Community Mountain Resorts
2. Regional Mountain Resorts
3. Destination Mountain Resorts

The basic features and facilities that might be expected at each type of area are outlined below.

II.1.7.1 Community Mountain Resort

Typically, a Community Resort has the following criteria or features:

- Serves the local population.
- Focused on weekend use and local needs.
- No overnight accommodation.

Two current examples of community mountain resorts are Clearwater Ski Club in Clearwater and Harper Mountain near Kamloops. Development of lodging or a "cabin community" would trigger the master planning process outlined in this document. Developments of this type need to be tied to a larger vision in order to avoid potential problems from haphazard expansion.

NOTE: Although technically not resorts (because of the lack of on-site accommodation) community areas are still governed by the same CASP driven development process as are their regional and destination counterparts. They play a vital role as "feeder areas" to their larger cousins and given the right circumstances may be expanded to reflect true resort capabilities.

II.1.7.2 Regional Mountain Resort

The Regional Mountain Resort has the following criteria or features:

- Serves both local and regional populations.
- Is entirely focused on regional use and local needs.
- Has a limited number of beds, the majority of which are privately owned, low-key developments (i.e. cabins and cottages as compared to hotels and second homes).

Two current examples of regional mountain resorts are Mt. Baldy, near Osoyoos, and Hemlock Valley near Chilliwack. Regional Mountain Resorts are subject to the same Master Planning process outlined in the Guidelines, although to a smaller degree and scale when compared to destination resorts.

NOTE: Depending on circumstances -- size and scale of the potential attractions; changes to regional population bases; variations in the tourism marketplace -- a Regional Resort might show potential for Destination Mountain Resort status. In that case, additional development on the mountain and in the base area may be warranted at some point in the future.

II.1.7.3 Destination Mountain Resort

The Destination Mountain resort has the following criteria or features:

- Serves local, regional and destination enthusiasts with an emphasis on catering to destination needs and services.
- Offers a unique and truly special mountain experience.
- Provides a wide range of tourist facilities, given that their guests are usually there for a total resort experience where lift-serviced skiing and snowboarding (although still the cornerstone activities) are no longer the only attractions.
- International airport within a two to three hour drive.
- Significant bed base in close proximity to lifts and trails at the resort, including publicly available commercial beds (approximately 40-60 percent in close proximity to the ski lifts and trails and other resort amenities), private bed subdivisions (approximately 30-

50 percent), and resident-restricted employee housing (approximately 10-20 percent).

As of 2005, Whistler/Blackcomb, Big White, Sun Peaks, and Fernie Alpine (and to a slightly lesser degree Silver Star, Kimberley Alpine, Mt. Washington, Red Mountain) are examples of Destination Mountain Resorts in B.C.

II.1.7.4 Other Types of Mountain Resorts

Proposals that do not fall exactly within one of the above three classifications should still be submitted for consideration. These could include specialized concepts for mountain resort developments that have, as yet, been unanticipated and untried in this province.

Remote, low-density developments serviced both by ski lifts, snowcats, and/or helicopters may be assessed as mountain resorts under both the Commercial Alpine Skiing Policy and the Commercial Recreation Policy.

An example of an "out-of-category" mountain resort project is Mike Wiegele Helicopter Skiing's Saddle Mountain Resort development.

II.2 Mountain Resort Planning: The Vision Stage (Expression of Interest)

II.2.1 Introduction

The first stage of mountain resort planning requires proponents to define their "vision" of the projected development. In general terms, they should be able to answer the following:

- Where is the planned development?
- What is the intended focus of the resort?
- Does it have four season attributes?
- Does it get sufficient snow to support winter facilities and sports?
- What type of mountain resort will it be?
- Is there a market for the resort?
- Is it accessible?
- Who will benefit from the mountain resort development?

Silver Star Mountain Resort

II.2.2 Preliminary Project Overview

A conceptual overview of the proposed project should be communicated to the Province prior to undertaking any significant work.

As dialogue progresses, the amount of detailed information required will increase. Therefore, the goal of these initial discussions is to determine whether or not there are any immediate and obvious reasons that the study area should not be considered for mountain resort development. If all early indications are positive, then the applicant is

Example of BC TRIM Study Area Mapping

invited to submit an Expression of Interest.

II.2.3 Expression of Interest

As per the Commercial Alpine Skiing Policy (CASP), an Expression of Interest (EOI) to develop a mountain resort on Crown land should be submitted to Tourism and Resort Development Division for consideration. The Expression of Interest should effectively describe the applicant's Vision for the proposed project. The following describes the type of content that defines the Vision and would be expected in the EOI.

II.2.3.1 Project Introduction

At this early stage of planning, all aspects of the project should be described in a fashion that demonstrates a solid knowledge of the site and its application to the intended use. The preliminary overview should introduce the Province to the proposed development and should answer such questions as:

- What is the vision for the proposed resort?
- Where is the project located?
- What does the proponent wish to do there?
- What is the basic size and scale of the project?
- How does it fit into the region/the province as a development project?
- Who is the proponent?

II.2.3.2 Goals and Objectives

The Project Goals and Objectives should describe, in progressively greater detail, the prospective developer's plans for the proposed resort. Included in "Goals and Objectives" should be a discussion on the scale, size and type of mountain resort along with a preliminary idea of market niche and environmental impact.

II.2.3.3 Study Area Mapping

In order to properly evaluate the development potential of a prospective mountain resort site, topographic, planimetric and cadastral mapping of the study area must be utilized. The more detailed and accurate the mapping, the more representative the plans will be to reality.

At the very least, BCGS topographic mapping at a scale of 1:20,000 with a 20 meter contour interval should be utilized. Although such mapping is very coarse in detail, it is of sufficient quality to complete all preliminary inventory, analysis and planning. Given that this mapping is readily available for all of British Columbia, it is a relatively easy and inexpensive way for proponents to explore and communicate the preliminary aspects of their mountain resort development vision.

It should be noted that although slightly more expensive, this same mapping is available in digital format of BC TRIM mapping (see http://www.landdata.gov.bc.ca/ or http://srmwww.gov.bc.ca/gis/trimcont/), thus enabling preliminary studies

to be easily and accurately completed utilizing computer analysis.

II.2.3.4 Preliminary Site Inventory and Analysis

Once the mapping is in place, a preliminary site inventory and analysis must be completed to illustrate and define the following (see section II.3.8.1 and II.3.8.2):

- Delineate study area;
- Delineate proposed Controlled Recreation Area (CRA)

Although each CRA is resort specific, it should include all of the mountain and base area terrain necessary to establish and achieve the resort vision. At this preliminary stage, the CRA should also encompass appropriate environmental protection areas and visual buffer zones.

However, it should be noted that the lands being proposed for the CRA will be subject to in-depth, inter-agency and First Nations review. The larger the CRA, the more complex the approvals.

- Delineate legal boundaries;
- Delineate and describe existing use;
- Delineate and describe adjacent land use;
- Research existing tenures, land claims and proposed uses with the applicable Ministry;
- Review accessibility. A prospective mountain resort development should have reasonably good road access to the staging point;

NOTE: All development and improvements of access roads must ultimately be designed to meet public winter use standards and is the responsibility of the proponent.

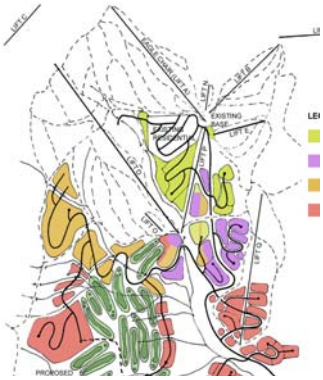
- Slope Analysis by skier skill classification breakdown;
- Elevation Analysis;
- Aspect Analysis;
- Fall Line Analysis;
- Skiing Potential Analysis;
- Climate/Snowpack Analysis (to prove that skiing is possible both with natural snow and augmented with man-made snow for at least 120 days a year.)

Note: Ski Resort Development Rule #1: Never build a ski resort where there is no snow.

- Base Area Potential Analysis;
- Preliminary Environmental commentary, and possible environmental constraints;

and:

- First Nations site specific issues (if available).



Preliminary Concept – Mt Baldy

II.2.3.5 Opportunities and Constraints Plan

The Opportunities and Constraints Plan summarizes all of the development issues as they relate to the study area's potential to support the resort vision, goals and objectives.

II.2.3.6 Preliminary Concept

Moving logically from the Opportunities and Constraints Plan, a Preliminary Concept, describing the prospective mountain resort development, should be delineated on base maps.

This concept (or concepts), should relate directly to the resort type defined in the first section. A discussion on the size and scale of the development should include an indication of the site's capability to support all on-mountain activities (i.e. alpine skiing, Nordic skiing, snowshoeing, tubing, etc.). The capacity of the attractions should match the capacity of the base area to act as a staging complement to those activities. The objective here is to provide an order of magnitude for the number of visitors the proposed development can accommodate per day, in balanced and well-integrated fashion.

Note: Further, an initial commentary regarding the ability to provide the resort with necessary infrastructure (water, sewer and power) should be included here.

Finally, if there are similar resorts that can be cited as examples of what the developer envisions, it is recommended that pictures, facts and figures from those resorts be used to help support the proponents' description of the concept.

II.2.3.7 Preliminary Market Commentary

A preliminary discussion of market forces should be completed to address the following:

- Who will the target market be (for both winter and summer use)?
- Where is the market located for the proposed mountain resort?
- What portion of the market will be comprised of day use?
- What portion of the market will be destination oriented?
- Who is the competition?

This should be in the form of a basic commentary, not a detailed market analysis.

II.2.4 Review and Referral

Once submitted, the Expression of Interest will be reviewed by the Province and then referred to other agencies, First Nations and local government. Typically, such a review will take 30 to 60 days to complete. If the project is determined to be unworkable at this time, the applicant will be so advised, and discouraged from continuing with that particular concept. However, if the review is positive, TRD Division will undertake the following:

1. Obtain status clearance (i.e. determine any conflicts with other tenure-holders, confirm ownership of land and any prior rights on the land, etc.);

2. Designate the area under Section 13 of the Land Act as a Designated Use Area, subject to regular 5-year review;

3. Appraise the land value and improvements (if any),

4. Request the Ministry of Energy, Mines and Petroleum Resources to establish a Staking Reserve over the proposed Controlled Recreation Area.

This will effectively remove the land from consideration for purposes other than mountain resort development while an Expression of Interest is under review.

II.2.5 Additional Expressions of Interest

Following a positive review, the Province may advertise for additional Expressions of Interest and to solicit public comments as part of the All Season Resort Policy. The notification to the public will be released in the region of the intended application. A wider release will be made if the apparent size of the project and proposed market warrants it. Over the course of the next 30 days, other parties will be given the opportunity to submit additional EOI's.

II.2.6 Preliminary Evaluation of Expressions of Interest

▶ Government Decision Point in the Process

The Province will administer all Expressions of Interest. An evaluation will be completed and a decision will be made to approve one of the submissions. MTSA and the TRD Division reserves the right to request additional information or studies that would usually be required in the Concept Stage in order to accurately evaluate multiple EOI's. A single submission will be selected at this point by TRD and the successful proponent will be invited to submit a **Formal Proposal** to generate a mountain resort development concept. The expected content of a Mountain Resort Development Proposal is described in Section II.3 of the Mountain Resort Guidelines.

Artists Rendering of Fernie Alpine Village

II.3 Mountain Resort Planning: The Concept Stage (The Proposal)

II.3.1 Introduction

The Concept Stage of Mountain Resort Planning takes the preliminary concepts developed in the Vision Stage to a much higher level of detail. The following describes the basic content expected from submissions responding to a formal proposal call to develop a mountain resort (regardless of the size, scale or type).

II.3.2 Request for a Proposal

The formal proposal holds:

- The issues pertaining to the project's ability to satisfactorily adhere to the physical, environmental, social and economic realities that define a successful mountain resort development.
- Development concepts for the mountain and base area lands;
- Phased development and implementation concepts;
- A discussion of the environmental impacts created by the development concept, and remedial measures;
- A discussion of the economic and social impacts, land use issues and proposed methods for resolution of conflicts;
- A preliminary servicing infrastructure (power sewer and water) feasibility plan;
- A preliminary economic proforma (cash flow projections and development cost estimates);
- A market analysis;
- A summary of ownership and management structure in a detailed prospectus;
- Evidence of the applicant's financial capability to complete the master planning and approval process.

II.3.3 Project Overview

The overall project intent should be described, touching on the basics that will be found within the submission.

II.3.4 Project Vision, Goals and Objectives

The preliminary vision, goals and objectives outlined in the Expression of Interest should be refined to include more specific details, recognizing the opportunities and constraints identified in the preliminary reviews.

II.3.5 Site Mapping

In order to properly analyse the study area, the proponent must utilize appropriate topographic mapping. At this stage, a 20-metre contour interval map base will still suffice.

NOTE: If the project proceeds to the Resort Master Plan Stage, topographic mapping of the mountain and the base area will be required with a 5 metre contour interval and a 1 metre contour interval respectively.

II.3.6 Site Inventory

The site inventory is the collation of all information about the entire study area and the adjacent lands. Tied directly to the site mapping, the existing physical character of the land, its current use, and its zoned or proposed use should be fully described and illustrated. The site inventory must illustrate built structures, historic sites, roads, vegetation, streams, water bodies, power lines, etc. In addition, all property and legal boundaries must be

attached to the site mapping. Finally, all existing use tenures for the study area and adjacent lands should be researched and mapped.

II.3.7 Environmental Inventory

The environmental inventory is intended to illustrate the study area's biophysical attributes as a means of defining development opportunities and constraints. Tied directly to the site mapping and coinciding with the site inventory, this should include both a graphic and verbal discussion that identifies, quantifies, and delineates the specific existing environmental components and impact issues that will affect potential future use. The environmental inventory should provide commentary on (but not be restricted to) the following:

- Water features (rivers, creeks, lakes, ponds, wetlands) and associated riparian areas and setbacks
- Vegetation (rare and endangered species)
- Wildlife (rare and endangered species, habitat areas, wildlife corridors etc.)
- Geotechnical (generalized considerations)
- Scenic and Natural Features.

II.3.8 Site Analysis

All of the data assembled during the Site and Environmental Inventories should be applied to a detailed analysis that relates directly to the development's vision, goals and objectives. The analysis should be broken into two basic components:

1. The Mountain Development Analysis – focused on the skiing and/or the mountain facilities development component.

2. The Base/Village Development Analysis – focused on the staging area and/or base / village area component

NOTE: Because the mountain and its attributes define the attraction, the mountain development analysis should lead to the identification and definition of the base area to be analysed. Remember: the base area always complements the mountain's layout and attractions, not the reverse.

II.3.8.1 Mountain Development Analysis

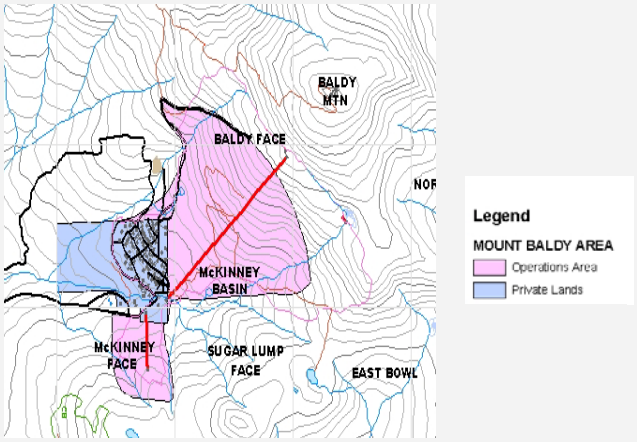
The objective of the Mountain Development Analysis is to identify the full potential of the entire study area to accommodate the development of a resort such that the best activities mix -- including winter use (skiing, snowboarding, Nordic skiing, backcountry touring, tubing, etc) and summer use (mountain biking, hiking, wildlife viewing etc) -- will be established while also recognizing the need to ensure that sufficient land is preserved for support facilities (arrival roads, visitor drop-off zones, parking, base lodges, village development, etc.). The analyses, to be completed on an appropriate map base, should include the following:

1. Existing Conditions
2. Elevation Analysis
3. Slope Analysis
4. Fall line Analysis
5. Aspect Analysis
6. Climate Analysis
7. Existing Environmental Conditions
8. Development Regulations
9. Adjacent Land Use
10. Mountain Opportunities and Constraints Plan

These are described in detail on the following pages.

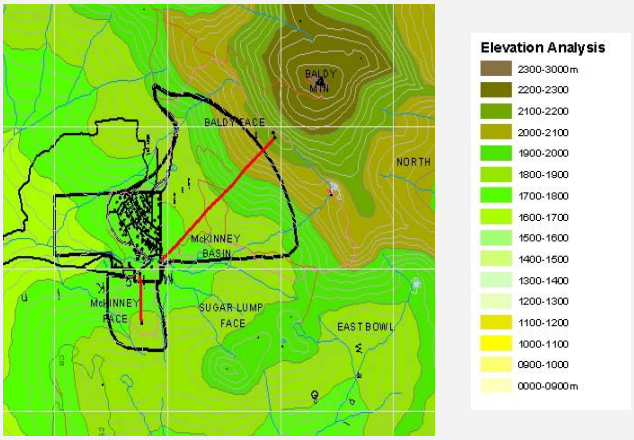
1. Existing Conditions:

A delineation of all planimetric features and cadastral information of the study area and adjacent lands



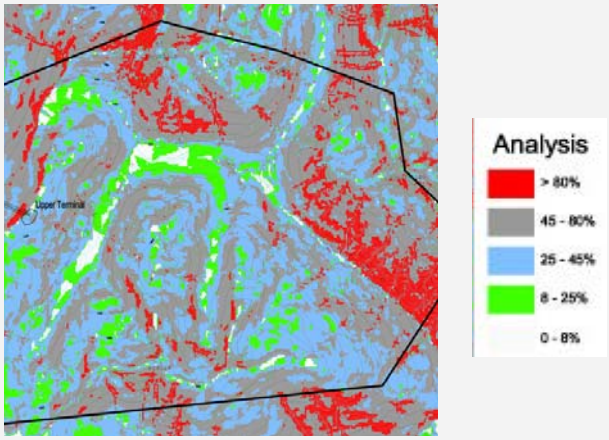
2. Elevation Analysis:

An illustration of the relative elevations within the Study Area, identifying potential land parcels of similar heights and the general flows of the land connecting those parcels.



3. Slope Analysis:

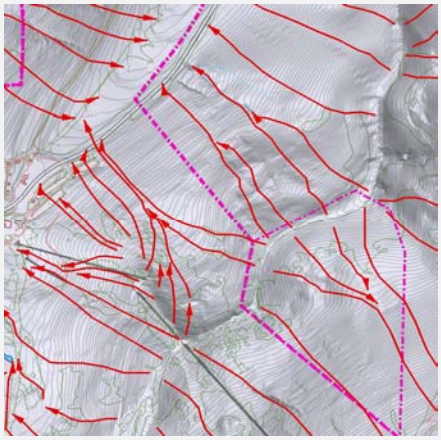
An evaluation of the topography of the Study Area in terms of the limits of the basic skier/snowboarder skill classifications (beginner, intermediate and expert) and of the site's ability to accommodate ski facility development. The following breakdown generally applies:



0 - 8%	Too flat for skiing/good for base area development
8 - 25%	Beginner/Novice
25 - 45%	Intermediate
45 - 80%	Advanced/Expert
80 -100%	Extreme Skiing / Areas of considerable hazard
+100%	Too steep for normal skiing/potential avalanche

4. Fall-Line Analysis:

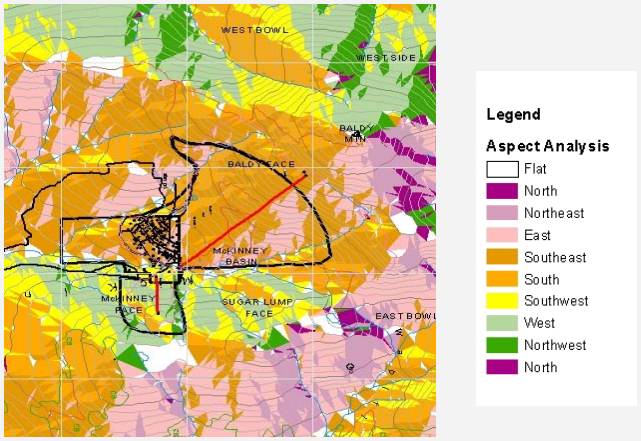
An evaluation of the mountain terrain in terms of the natural fall-line. The fall-line is the path an object takes as it moves down a slope perpendicular to the contour lines. Fall-line skiing provides for the natural flow of skiers of all ability levels, from the top of the mountain to the base areas. Consistency of fall-line provides the best recreational skiing experience with the least amount of environmental disruption due to minimal earth-moving requirements during ski trail construction.



→ **Flow Lines**

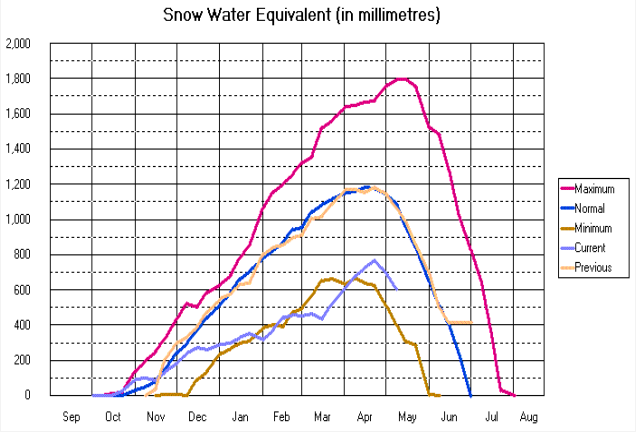
5. Aspect Analysis:

The slopes of the Study Area should be inventoried, in terms of their orientation to the directions of the compass and their sun/shade relationship to the surrounding landscape. This will define areas of the mountain and the base lands that can be rated as ideal for development (avoiding areas that are too "hot" for reliable snow retention on ski trails or too "cold" for the comfortable outdoor participation of activities in the base areas).



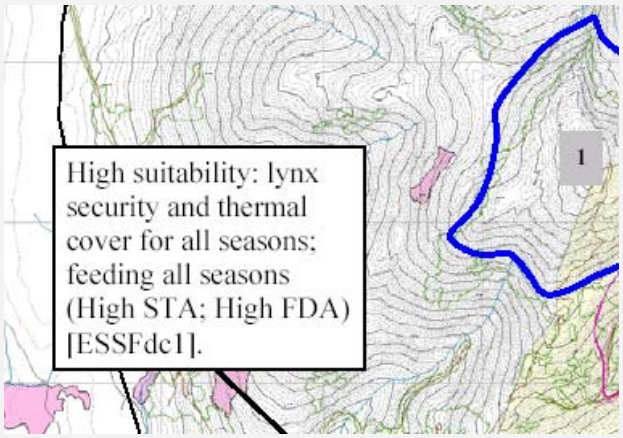
6. Climate Analysis:

Climatologic information of the site (temperature profiles, wind direction, wind strength, total precipitation, snowpack, percentage of clear days, etc.) must be analyzed with an eye to its impact on mountain resort development.



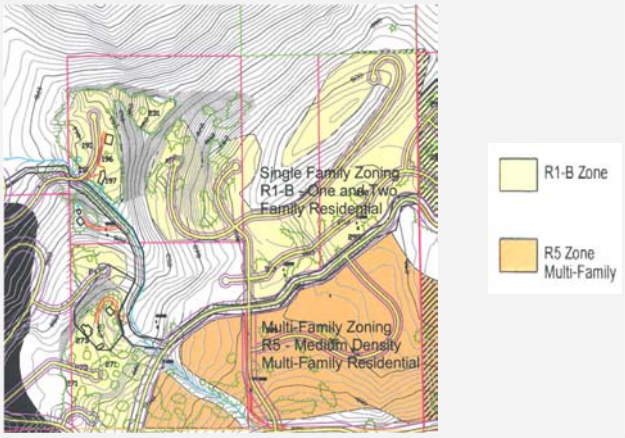
7. Existing Environmental Conditions:

An evaluation of the environmental conditions of the site, as they relate to the potential for mountain resort development. The purpose of this is to illustrate any environmental attributes that should be incorporated into the detailed "attractions-planning" of the resort. Conversely, any environmental constraints that may alienate or restrict the development of the resort need to be identified as well.



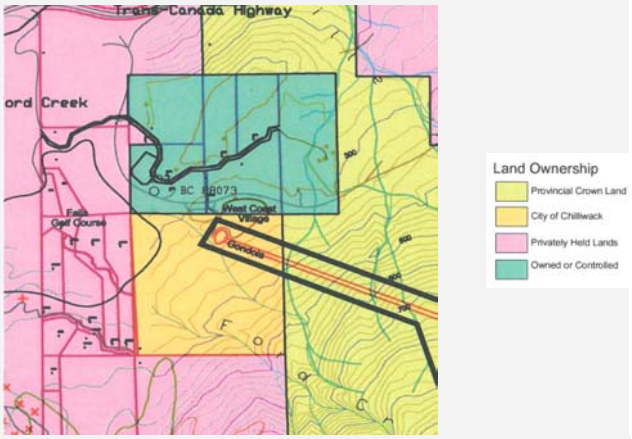
8. Development Regulations:

A review (and if applicable a delineation on a Study Area Map), of all development jurisdictions (i.e. Crown land, local government, regional district) and approving bodies whose regulations will come into play (i.e. zoning, setbacks, environmental assessments, etc.).



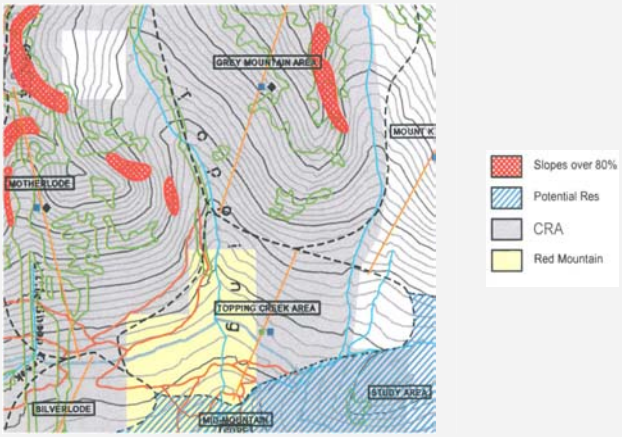
9. Adjacent Land Use:

Adjacent land use, existing and proposed, must be analyzed in order to assess its compatibility with the proposed resort development. This will help identify and potentially mitigate any problems that may negatively impact the resort's development approval, implementation and ultimate success.



10. Mountain Opportunities and Constraints Plan:

Once complete, all of the key points of each of the analyses should be summarized and presented as a Plan that responds to, and reflects, the project's goals and objectives. This will delineate the gross areas compatible with mountain resort development and base area/village development. It should act as the basis for determining the Base Lands Development Area and the Mountain Development Program.



II.3.8.2 Base / Village Development Analysis

The completed Mountain Development Analysis should clearly identify areas that appear to be compatible with base area development. Subsequently, these areas should be analysed in greater detail to ensure that they are of a size and scale necessary to support the potential development of on-mountain facilities. Utilizing an appropriate map base, the Base/Village Development Analysis should illustrate the capability of the proposed base lands to establish a functional balance with its on-mountain facilities (lifts, trails, etc). It must also provide clear directions on the ability of the lands to accommodate the project's specific development goals and objectives (i.e. village development, residential subdivision, golf course development, year round attractions, etc.)

The base lands analyses should include:

1. Existing Conditions
2. Base Lands Slope Analysis
3. Existing Environmental Conditions
4. Development Regulations
5. Base Lands Opportunities and Constraints Plan

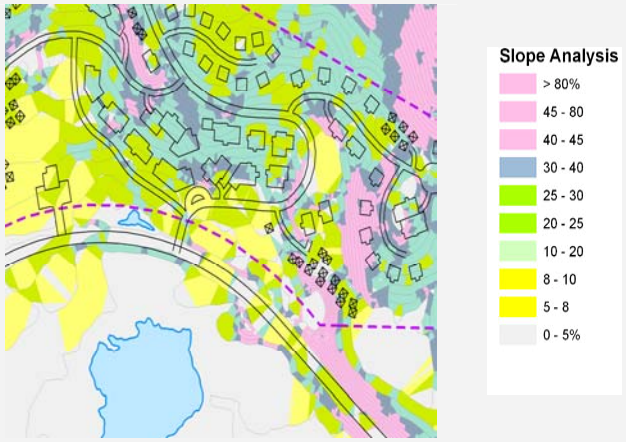
These are described in more detail on the following pages.

1. Existing Conditions:

A delineation of all planimetric features and cadastral information of the study area and adjacent lands.

2. Base Lands Slope Analysis:

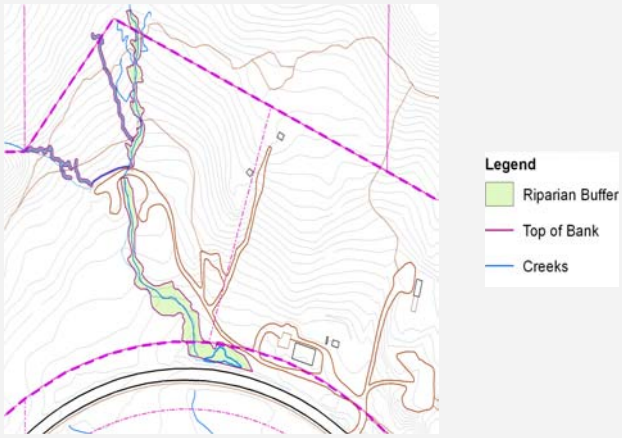
An evaluation of the base lands topography in terms of slope gradient, which determines its ability to support base area facilities, village development, auxiliary facilities, and residential development. Typically, the slope gradients for base area development are broken into categories up to a maximum of 40% slope as follows:



0 - 10%	Capable of accommodating all types of base area development with limited grading. Typically identifying parking potential as well as lands that may be wet and environmentally sensitive to development.
10 - 20%	Lands that will require some grading to accommodate development. Upper limits to base area/village development.
20 - 30%	Upper limits to multifamily development with grading.
30 - 40%	Upper limits to conventional single-family development.
40%+	Generally too steep for development. However, dependent on reasonable access and geotechnical considerations, some development possible.

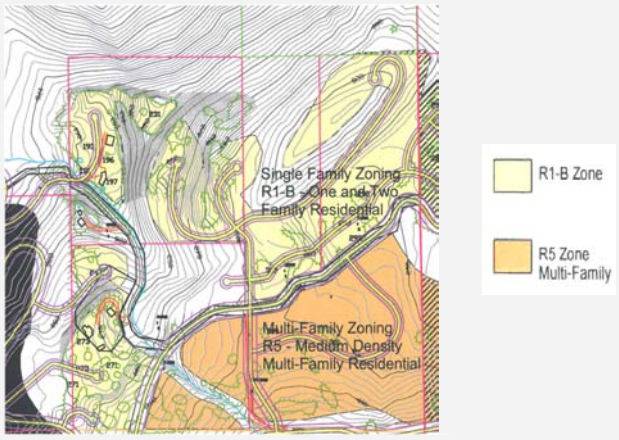
3. Existing Environmental Conditions:

A description of environmental features in the base lands that should be carefully taken into account, preserved or mitigated in the development plan.



4. Development Regulations:

A review (and if applicable a delineation on a Study Area Map), of all development jurisdictions (i.e. Crown land, local government, regional district) and approving bodies whose regulations will come into play (i.e. zoning, setbacks, environmental assessments, civil engineering guidelines etc.).



5. Base Lands Opportunities and Constraints Plan:

The Base Area Analyses should be summarized and presented as an Opportunity and Constraints Plan that fully responds to the development's goals and objectives.

II.3.9 Mountain Resort Concept

The Mountain Resort Concept should be the logical product of the various analyses. Typically, the inflexible nature of a mountain determines the best configuration of ski lifts and trails. This in turn defines where the base area facilities generally must be located. As with the analyses, the Mountain Resort Concept naturally breaks into two primary components: the Mountain Concept and the Base/Village Concept.

II.4 THE MOUNTAIN CONCEPT PLAN

II.4.1 Introduction

To date, alpine skiing facilities have generally dominated as the primary attraction at mountain resorts. **As this is typically the highest density use in the mountains, this section of the Guidelines focuses on the facilities required for alpine skiing.** (Developers who aren't contemplating building lifts at their mountain resort can skip this section.)

NOTE: For the purposes of these Guidelines, "alpine skiing" refers both to downhill skiing and snowboarding.

In designing a successful alpine skiing resort, the concept plans for the mountain must carefully balance the alignment of the lifts with the trails that serve those lifts in such a way that the uphill capacity of the ski lifts matches the downhill capacity of the trails.

The Mountain Development Concept should define the following:

- Ski Lift Alignment and Terminal Sites
- Ski Trails and Slopes
- Skier Skill Classes
- Snowboarding
- Ski Trail Capacity
- Vertical Demand
- Weighted Vertical Demand
- Comfortable Carrying Capacity
- Balanced Resort Capacity

II.4.2 Ski Alignment and Terminal Site

The alignment of the ski lifts connecting the upper and lower terminal points should be identified in such a way that they take maximum advantage of the terrain. As well, they should be tied to a system of ski trails that result in a complete area interconnection. Ski lifts should be placed to serve available ski terrain in the most efficient manner, while considering the following factors:

- The downhill capacity of trails;
- The prevailing storm and wind conditions;
- Staging time;
- Repeat skiing and access requirements;
- Interconnection between other lifts and ski trails;
- Circulation and milling areas, lift line mazes and lift-loading

space requirements for lower ski lift terminals;

- Circulation and milling areas, off-loading and downloading space requirements for upper ski lift terminals;

- Gradients in the queuing areas of the lower lift terminal to achieve maximum lift loading efficiencies;

- Gradients of the off-load ramps from the upper terminal to effect a smooth transition to the pre-skiing prep area.

II.4.3 Ski Trails and Slopes

The sport of skiing has continually evolved with advancements in equipment. Such changes as the introduction of shorter shaped skis has enabled skiers to access steeper and previously un-skiable terrain. Further, the pursuit of powder snow has impacted on the design and operation of ski areas. That said, the ski trail design should focus on the following:

- The natural configuration of the land should be utilized to its greatest potential in order to support the optimum capacity of the site while creating a pleasurable skiing experience;

- The range of skiing available on-mountain, should match the mix of skiers generally found within the British Columbian marketplace. Typically the breakdown of trails should provide approximately 15%-20% of the terrain for beginner/novice skier facilities, 50% to 60% for intermediate skiers and 20% to 30% for advanced/expert skiers;

- Ski trail widths should vary depending on topographic conditions and the calibre of skiers they are intended for;

- Ski trails should be classified using the steepest 100-metre lineal section as the indicator. For example a trail may be largely within the acceptable grades for novice skiers, but a 100-metre length at gradients matching intermediate level would require that the entire trail be rated as intermediate;

- A lower classification ski trail should never be accessed by a higher classification trail (for example: first-time skiers cannot use a beginner trail if that trail can only be accessed from more advanced terrain);

- Ski trail networks must minimize cross-traffic circulation, bottlenecks and convergence zones, which might result in skier congestion and/or accidents;

- Run widths and trail location should consider wind exposure. It is preferable to have runs built at right angles to the prevailing wind;

- North, northeast and east-facing slopes generally offer the best snow conditions for skiing;

- The snow on steep, south to southwest facing sun-exposed trails will deteriorate faster, and generally be more difficult to maintain, than trails with more northerly and protected orientations;

- Skiable connections (at gradients never less than 10% slope) should be created to link the mountain's lift and trail systems, such that low intermediate skiers/snowboarders are able to comfortably circulate throughout the ski area in a timely manner;

- Consideration should be given to the use of varying densities of glading between ski trails to offer a greater range of skier experiences. Glading is strongly recommended at destination resorts;

- All ski trails and slopes must consider avalanche hazards (areas that are avalanche-prone should be avoided and/or carefully controlled) carefully controlled). Alpine skiing facilities at Community and Regional Resorts should be designed to avoid any avalanche prone areas, as the cost of control is prohibitively expensive for small operations.

II.4.4 Snowboarding

Although the sport continues to evolve, there are three basic types of snowboarding: freestyle, freeriding, and alpine. Freestyle snowboarding has been equated to skateboarding where, much like at a skateboard park, the freestyle snowboarders (now joined by freestyle skiers) will gather at specialized, on-mountain facilities such as terrain parks and halfpipes to do tricks and jumps. The freeriding and alpine snowboarders utilize the ski trails and off-piste areas of the mountain in a fashion similar to skiers. The skill class breakdown of freeriding and alpine snowboarders on the mountain equates to the same breakdown found within the skier population.

II.4.5 Ski Trail Capacity

Ski trail capacity is a function of the acceptable density of users per hectare, rated by skier-skill class. Typically, the range of acceptable densities for ski trails by skill class is as follows:

Table 1: Ski Trail Capacities

Skill Class	Acceptable Density
Beginner	35 – 75 /ha
Novice	30 – 60 /ha
Low Intermediate	20 – 40 /ha
Intermediate	15 – 30 /ha
Advanced Intermediate	10 – 20 /ha
Expert	5 – 10 /ha

Destination ↔ Day Use

A resort that caters to destination guests should strive to achieve trail densities at the lower end of the spectrum, whereas resorts catering to regional and / or local guests may expect to achieve higher trail densities recognizing that as densities increase, they are offering a progressively less acceptable skier experience.

The acceptable density of skiers on gladed trails is generally 15% to 30% of the comparable skier skill class depending on the spacing of the trees.

It should be noted that the preferred and acceptable skier/rider densities have decreased considerably in recent years (for all skill classes). The advent of shaped skis -- combined with snowboarding's relatively easy learning curve -- has enabled a larger number of skiers and riders to negotiate steeper and more adventuresome slopes sooner and with greater control than ever before. What was considered "experts-only' terrain ten years ago is now accessible to a much broader segment of the skiing population. This has resulted in faster speeds, more congestion and a greater potential for collisions. In addition, new terrain has opened up in areas that were traditionally too steep to ski or ride.

The issue of what is acceptable, what is expected, and what is desirable, should be given careful consideration. All destination skiers expect a low-density skiing experience. Resorts that wish to cater to a powder skiing experience need to keep the density even lower. Urban skiers may still be willing to put up with higher densities in exchange for the convenience created by ease of access -- but this too is changing rapidly.

Note: Ski trail capacity is determined by multiplying the total areas of a given trail by its acceptable density (as per the trail skill classification). For example an intermediate trail with an area of 10 hectares at a Destination Resort could have a capacity of about 150 skiers (10 ha x 15 skiers/ha). The ski trail capacity for the whole resort would be equal to the sum of the calculated number of skiers for each ski trail

II.4.6 Skier Skill Classes

The skier/rider population is broken down into skill classes ranging from beginner to expert. The development of ski trails should generally match the skill distribution bell curve, while taking into account the acceptable densities on the trails. In British Columbia, the breakdown looks something like this:

Beginner	2 - 6%
Novice	11 - 15%
Low Intermediate	18 - 22%
Intermediate	33 - 37%
Advanced	18 - 22%
Expert	8 - 12%

Note: A mountain's actual ski trail breakdown is normally a function of the type of resort under consideration. For example, a community hill would typically be skewed toward the lower end of the skier skill class spectrum, whereas a destination resort would favour more advanced skiers. It is important to note that in order for a resort to be successful, all classifications must be represented and the skier skill curve respected.

Whether or not an area matches the skier/rider marketplace is determined by taking the sum of all trail capacities as per their acceptable densities, calculating the ratio of skiers for each skill class, and comparing it to the perceived market breakdown. For example, Table 3 shows an area that caters to an equal amount of destination and day use visitors (middle of the range), with trails in relatively good balance.

II.4.7 Vertical Demand

Vertical demand is the amount of vertical terrain that skiers/riders can be expected to ski over the course of a day (typically a six to seven hour period). This figure is calculated separately for each skill class. The average vertical demand has been increasing for all skill levels and now approximates the ranges listed in Table 2.

Table 2: Vertical Demand

Skill Class	Range	Median
Beginner	500 - 1,000 m	750 m
Novice	1,000 - 2,000 m	1,500 m
Low Intermediate	2,000 - 3,500 m	2,750 m
Intermediate	3,500 - 5,000 m	4,250 m
Advanced Intermediate	5,000 - 7,500 m	6,250 m
Expert	7,500 - 10,000 m	8,750 m

Majority Fixed Grip Lifts ↔
Majority High Speed Lifts

Table 3: Skier Skill Classes

Ability Level	Skiable Area (Ha)	Trail Capacity	Skier Distribution	Skier Market
Beginner	3.4	187	6%	5%
Novice	12.8	576	19%	15%
Low Intermediate	20.2	606	20%	20%
Intermediate	45.5	1024	34%	35%
Advanced	33.2	498	16%	20%
Expert	20.6	154	5%	10%
Totals	**135.7**	**3045**	**100%**	**100%**

With the advent of high speed express lifts, better grooming and much easier-to-master equipment, skiers and riders are now able to satisfy their maximum expectations for skiing within shorter time periods. This results in an increasing demand for use of the base area and on-mountain facilities over the course of the day.

A destination resort, with state of the art grooming and snowmaking and a majority of high-speed lifts will have guests with vertical demands at the higher end of the spectrum.

HIGH-SPEED LIFTS, STATE OF THE ART GROOMING AND EASIER TO MASTER GEAR HAS INFLUENCED VERTICAL DEMANDS.

Conversely guests visiting, local and regional resorts with less grooming and more fixed grip lifts will have reduced expectations reflecting the lower end of the spectrum.

A resort that has an equal number of high speed and conventional fixed grip lifts would more than likely experience vertical demands in the middle of the range.

II.4.8 Weighted Vertical Demand

The weighted vertical demand of a particular lift is determined by calculating the ratio of the different ability types that the ski trails accessing that lift will service and adding up the sum of each. For example if a ski lift services 5 hectares of low intermediate terrain, 10 hectares of intermediate terrain and 7 hectares of advanced terrain, the number of skiers can be calculated and their weighted demand to utilize the ski lift determined as per Table 4.

Table 4: Weighted Vertical Demand

Ability Level	Area (Ha)	Trail Capacity	Percentage Use	Vertical Demand	Weighted Demand
Low Int.	5	150	35%	2,750	962
Intermediate	10	225	53%	4,250	2,250
Advanced	7	52	12%	6,250	750
Total	**22**	**427**	**100%**		**3,962**

II.4.9 Alpine Skiing Comfortable Carrying Capacity

Comfortable Carrying Capacity (CCC) -- as it relates to alpine skiing -- is defined as the optimum number of skiers that can utilize the alpine skiing facilities per day such that their skiing experience expectations are being met while the integrity of the site's physical and social environment is maintained.

As alpine skiing is still the dominant activity at most mountain resorts, the CCC of the alpine skiing facilities is likely to be the largest and most important figure to determine. It should be considered as a dynamic number, taking into account the actual traffic patterns of the resort throughout the day (including pre and post skiing activities). Furthermore, a variety of different issues – circulation, staging time to remote lifts and areas, multiple use-periods (i.e. night skiing), egress time from remote areas, the need for downloading -- must all be addressed when calculating the CCC.

Table 5: Alpine Skiing Uphill Comfortable Carrying Capacity

Ski Lift	Vertical (M)	Hourly Capacity (Skiers/hr)	Hours of Operation	Lift Loading Efficiency	Weighted Vertical Demand (M/Day)	CCC
Detach -able Quad	536	2400	6	95%	4,280	1,713
Fixed Triple	208	1800	6	85%	2,955	646
Fixed Double	131	1200	6	85%	1,628	492
Total						**2,851**

The CCC for each ski lift and associated ski trail system is calculated as per

the following model:

$$CCC = \frac{\text{Vertical Meters of the Lift} \times \text{Hourly Capacity of the Lift} \times \text{Hours of Operation of the Lift}}{\text{DIVIDED BY The Weighted Vertical Demand of the ski trails associated with the lift}}$$

The alpine skiing CCC is the sum of the CCC calculations for each lift and trail system.

For example, if an area has three ski lifts that operate 6 hours per day, servicing a variety of ski terrain, the alpine CCC of the ski area would be calculated as per Table 5.

The result effectively represents the "uphill capacity" of alpine skiing at the resort (2,851). This number has to be brought into balance with the "downhill capacity" of the ski trails as defined in Section II.4.10, Skiers At One Time.

II.4.10 Skiers At One Time (SAOT)

"Skiers at One Time" (SAOT) is a static view of the number of skiers/riders that an area's trails can accommodate at any given time. It is determined by multiplying the area of a given ski trail by the average slope density (as per the ski trail skill classifications and the resort type).

The Acceptable Slope Density figures represent the number of skiers actually on the ski trails. At a well balanced skiing facility, (depending on the type of ski lifts and the circulation patterns of the skiers), approximately 30% to 40% of the active skiers can be on the slopes while the remaining skiers will be riding the lifts or waiting in the lift lines. The applied ski trail densities (See Section II.4.5) take into account skiers at these various locations. As such, the sum of the densities of all of the trails represents the total SAOT of the resort.

SAOT also effectively represents the downhill capacity of the ski trails. This number, once adjusted to take into account site-specific issues of circulation, should match the uphill capacity as defined by the CCC of the ski lifts.

For example, if a ski area that catered to an equal amount of destination and day use visitors (middle of density range), had the following ski trails, the SAOT of each run and the total for the resort would be 1,816 (Table 6).

Table 6: Skiers At One Time (Downhill CCC) (SAOT)

Trail Name	Skill Classification	Skiable Area	Acceptable Densities	Skiers At One Time(SAOT)
Beginner's Ease	Beginner	3.0 ha	55 / ha	165
Intermediate Alley	Low Intermediate	34.0 ha	22.5 / ha	765
Advanced Forest	Advanced	52.5 ha	15 / ha	788
No Sense - No Feeling	Expert	13.0 ha	7.5 / ha	98
Total SAOT				**1,816**

II.4.11 Balanced Resort Capacity

In today's competitive tourism market, it is becoming increasingly necessary for resort developers to provide a variety of on-mountain activities that complement – and enhance -- the proposed area's alpine skiing product. Whether a developer plans to build Nordic ski trails, tubing hills, or self-propelled access to backcountry terrain, the capacity of each additional facility must be determined and added in a cumulative fashion to determine the total carrying capacity of the resort.

The concept of carrying capacity must incorporate and achieve a sense of balanced use of the land, without overwhelming the site's physical limitations. Likewise the perceived experience offered must be integrated into the determination of capacity. That is, the expectations of the target market must be taken into account.

Just as there are limits to growth in terms of the actual size that an attraction can reach before it compromises the environmental integrity of the site, there are points where the numbers of users or the mix of user types compromises the quality of experience that a resort offers – to its own detriment. Again, a balance must be determined and adhered to. The objective is to calculate a "balanced resort capacity".

As such, the definition of the Balanced Resort Capacity (BRC) is the optimum number of visitors that can utilize a resort's facilities per day in such a way that their recreational expectations are being met while the integrity of the site's physical and sociological environment is maintained on a year-round basis.

This number functions as the baseline figure for annual capacity potential, rates of utilization as well as all development and market projections for the resort on a seasonal basis.

Most importantly, the BRC becomes the cornerstone to defining the appropriate amount of base area facilities (built space, infrastructure, parking, bed units, etc) to be established at the resort.

NOTE: The cumulative capacity for a summer-focused mountain resort is calculated in the same way: by adding together the different capacities of each of the activities (such as golf, mountain biking, spa, tennis, etc.) The cumulative capacity of a proposed resort cannot be calculated on a multi-seasonal basis. In other words, the capacity of summer facilities cannot be added to the capacity of winter facilities to get a total…it doesn't work that way.

II.4.12 Capacity of Other Facilities and Attractions

Whether designed for summer or winter visitors, the facilities developed for specific activities at a mountain resort each have an optimum user number. The following provides a broad-line guide to some of the principal non lift-serviced skiing activities now found at major mountain resorts around the world. (This list is constantly growing and changing and should be adjusted accordingly.) The facilities listed are

divided into winter and summer specific activities.

Winter:

- Snowcat Skiing
- Heli-skiing
- Nordic trails
- Tubing
- Backcountry
- Paragliding
- Snowshoeing
- Snowmobile
- Water Park
- Spa
- Ice Skating
- Village Core (restaurants, shopping, convention facilities)

Summer:

All Day Use Facilities

- Daily Mountain top events
- Village Core (restaurants, shopping, people watching, convention facilities, etc.)
- Golf Course (eighteen hole, driving range, golf academy)
- Lift Serviced Mountain Biking
- Cross-country Mountain Biking
- Hiking
- Beach
- White-water Kayaking
- Water Park
- Spa
- Windsurfing
- Surfing
- Fishing
- Rock Climbing
- Motorized Touring
- Swimming

Short Term Use Facilities

- Site seeing / gondola
- Driving Range
- Zip Line
- Bungee Jumping
- Alpine Slide
- Rock Wall Climbing
- Trapeze
- Interpretive Centre

The capacity of each of these types of facilities has to be determined in terms of the total number of visitors over the course of the day in order to be applied to the BRC calculation.

II.4.13 BRC Calculation Example

The calculation of Balanced Resort Capacity is a function of the primary seasonal orientation of the resort development. The following illustrates examples of mountain resort developments and the associated BRC calculations.

II.4.13.1 The Ski Resort

In the case of a mountain resort primarily oriented to lift serviced alpine skiing, the uphill capacity (CCC of the ski lifts) balanced to the downhill capacity of the ski trails (SAOT adjusted to take in account site specific issues of circulation) is the capacity of the alpine skiing facilities. The addition of the capacities of other facilities utilized during the winter equates to the total BRC of the resort. This capacity must balance with the resort staging and support facilities and accommodation that are developed in the base area.

Consider a resort where the alpine skiing facilities have a CCC of 6,600 skiers per day. In addition, the same resort has the ability to attract another 250 cross-country skiers per day

Most importantly, the BRC becomes the cornerstone to defining the appropriate amount of base area facilities (built space, infrastructure, parking, bed units, etc) to be established at the resort.

because of their Nordic skiing facility. Finally, they have developed a unique water park / spa that is so special, another 250 guests come to the resort to exclusively use this facility. While there is undoubtedly some crossover use between facilities, the BRC, as the calculated cumulative total of those three primary facilities, is 7,100 resort visitors per day.

This number then becomes the foundation number to determine the appropriate amount of development in the base area in terms of space use requirements (Section II.5). Further, the BRC is of particular importance in the case of determining the appropriate number of bed units and associated overnight accommodation to be developed. Given this calculation, our prudent developer establishes enough accommodation in the form of real estate and publicly available beds to satisfy the needs of his winter visitors (as determined by the bed unit model (Section II.7).

That done, the developer, wanting to establish a year-round presence, wishes to create a series of summer oriented facilities. However, as much sense as this makes in terms of establishing and maintaining a balanced year round presence, the strategy of developing more real estate to pay for the facilities is only warranted if the "*summer*" BRC exceeds the "*winter*" BRC.

In this case, the likelihood of this occurring is remote. In an effort to determine if it were possible, our developer liberally added up all of the perceived summer opportunities that the resort could conceivably offer. The potential cumulative capacity of the summer facilities included 300 golfers; 300 water park / spa goers; 600 lift-serviced mountain bikers; 550 cross-country mountain bikers; 150 rock climbers; 2,000 shoppers/restaurant goers; 100 windsurfers; 200 beach goers; 50 kayakers; 250 hikers; 200 Zip liners; 200 motorized tourers; 100 fishers; and, 600 short term facilities patrons totalling 5,700 guests per day. This was still 1,400 shy of matching the "*winter*" BRC. As such, there is no justification to establish more real estate.

Understanding this, our developer proceeds to develop the planned summer facilities, in order to fill the accommodation that is already in place. As time goes on, new summer activities are searched out and added ultimately adding the other 1,400 summer guests to bring the resort into perfect balance.

At first glance this seems like a fairly extreme example but it reinforces the

Ideally, the winter BRC will equal the summer BRC

Table 7: BRC Example

Summer Use	CCC	Winter Use	CCC
Golf	300	Lift Serviced Skiing	6,600
Spa / Water Park	300	Nordic Skiing	250
Mountain Biking (lift accessed)	600	Spa	250
Mountain Biking	550		
Rock Climbing	150		
Convention	100		
Zip Line	200		
Shopping	2,000		
Motorized Tourers	200		
Fishers	100		
Hikers	250		
Beach Goers	200		
Windsurfers	100		
Kayakers	50		
Short Term Facilities	600		
Total	5,700	Total	7,100
BRC = 7,100			

need to understand that there are limits to growth and that a balanced approach must be embraced to ensure that the quality of the resort is not compromised by over development.

Table 7 illustrates the example of BRC in tabular form where alpine skiing in winter is the primary activity associated with the resort.

II.4.13.2 The "Non-Ski Area" Mountain Resort

The BRC of a mountain resort that is focused on activities and facilities other than lift serviced skiing is the cumulative total of the facility capacities. Unlike the dense land use that lift serviced ski resorts are able to justify, the non-ski area mountain resort will be a relatively low-density development. As an example, a high-end mountain resort that is focused on a variety of backcountry mountain facilities and programmed activities, combined with a mix of retreat facilities and sport facilities could include the following with its associated "summer" daily capacities: 50 heli-hikers; 50 spa patrons; 50 cross-country mountain bikers; 50 convention attendees, and; 100 golfers.

Table 8: Non-Ski BRC Example

Summer		Winter	
Use	CCC	Use	CCC
Golf	100	Heli Skiing	100
Spa	50	Convention / Retreat	50
Heli Hiking	50	Nordic / Backcountry / Snowshoeing	50
Mountain Biking	50	Spa	100
Convention / Retreat	50		
Total	300		300
BRC=300			

This then would bring the total BRC to 300 guests per day. In the winter, say the resort replaces the golf and heli-hiking with 100 heli-skiers; and mountain biking is replaced with 50 Nordic skiing / backcountry / snowshoeing guests. It maintains the 50 convention and retreat guests as well as the 50 spa guests. Like the summer, the winter BRC is 300 guests per day. The resort has achieved year round balance. This balanced all-season resort could then develop a complementary amount of support, staging and accommodation to round out its offering.

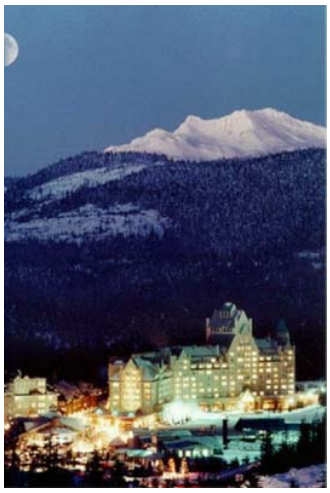
Table 8 outlines a resort where the primary activity is not alpine skiing in winter.

NOTE: As a simple comparison of mountain capacities, an all-season resort that has a lift serviced capacity of 25,000 skiers per day would need the equivalent of 20 eighteen hole golf courses in the summer to be in balance.

II.5 THE BASE/VILLAGE DEVELOPMENT CONCEPT

II.5.1 Introduction

Regardless of its type, a mountain resort's base area should be designed to cater to the needs of all visitors/skiers/snowboarders throughout the day from the time of their arrival to their point of departure. All facilities in the base (buildings, parking, maintenance, infrastructure, etc.) should be designed in balance with the BRC of the mountain facilities. Within the context of the



Blackcomb Base

type of mountain resort developed, careful consideration must be given to the base area design and layout as it relates to the following:

- Integration with the mountain
- Relationship to the ski lifts and trails (ski to/ski from)
- Relationship to staging locations of other activities
- Relationship to existing communities
- Skier walking distance
- Additional facilities
- Additional guests
- Space use requirements
- Parking capacity
- Staging capacity
- Overnight accommodation capacity
- Employee housing capacity
- Balance of facilities
- Infrastructure (water, sewer, power and roads) capacity.

II.5.2 Base Area Development by Type of Mountain Resort

II.5.2.1 Community Mountain Resort

The base area of a Community Mountain Resort typically features a simple layout that includes a day lodge, maintenance area and associated parking lot. The day lodge facilities should include a restaurant/cafeteria/meeting place, rest rooms, ski patrol/first aid, tickets/administration, ski school and equipment rental. The mountain operations office, staff lockers, maintenance shop, storage areas, grooming equipment, etc. are usually housed in the maintenance building.

As per the Commercial Alpine Skiing Policy, a Community Resort is classified as a Type 1 Alpine Ski Operation and would contain no overnight accommodation.

II.5.2.2 Regional Mountain Resort

A Regional Mountain Resort typically services a larger district than its Community counterpart. The base area facilities feature a day lodge(s), associated parking lots, and maintenance facilities.

The day lodge facilities typically include restaurant/food service space, kitchen, bar/lounge, rest rooms, ski patrol/first aid, retail, tickets, administration, public lockers, day care, ski school, and equipment rental and repair.

Residential and second home/cottage accommodation may be considered for development if demand for on-mountain housing can be demonstrated. All effort should be made to establish these developments within a reasonable walking distance of the lifts and/or within easy skiing distance of the trails. Depending on the size and scale of the overnight accommodations, there may be a need to operate some limited facilities (i.e. restaurant and retail) for non-skiing times.

Maintenance facilities should house the mountain operations office, staff lockers, storage areas, grooming equipment, etc. They should be established such that they do not interfere with the skiing experience being offered and should take into

account the impact that the maintenance area might have on the residential developments – in terms of visual aesthetics and operations noise (i.e. night grooming, snowmaking, etc.)

II.5.2.3 Destination Mountain Resort

The typical base area facilities for a Destination Mountain Resort are very similar to those of a Regional Resort, differing only in the increased size and scale of the development. The expanded emphasis is on facilities catering to destination guests, a higher percentage of publicly available or, warm beds, and the inclusion of housing for residents and employees.

The day-use, base lodge facilities will often be integrated into a comprehensive village-like layout that includes built space for restaurant/food service, kitchen, bar/lounge, rest rooms, ski patrol/first aid, retail outlets, tickets, administration, public lockers, day care, ski school, and equipment rental and repair.

These facilities will normally also be designed to cater to the pre- and post-skiing activities of destination guests and residents. As such, they should include restaurants, retail, specialized guest services, seminar/convention facilities, specialized recreation facilities, as well as additional complementary facilities catering to the permanent residents such as office space, community services, government agencies, light industrial development, etc.

Overnight accommodation in a destination resort will typically feature hotels, condotels, lodges, multi-family developments (condominiums, apartments, townhouses, etc.) and single family developments but may also include other types of development (pensions, bed and breakfasts, recreation vehicle/campgrounds, hostels, etc.), as applicable. Effort should be made to establish all of the publicly available accommodation within a reasonable walking distance of the ski lifts or within skiing distance to and from the ski lifts and trails.

NOTE: This "ski to/ski from" feature is one of BC's greatest differentiators on the global mountain resort scene and should be encouraged at every turn.

Maintenance facilities should house mountain operations, staff lockers, storage areas, grooming equipment, snowmaking equipment, etc. Typically they need both road access and snow access to function efficiently. At the same time, the maintenance facilities should be established such that they do not interfere with the skiing experience being offered and should take into account the impact that they might have on the ambiance of the resort and the experience offered at overnight accommodation developments.

Blackcomb Base

Village Master Plan, Fernie

II.5.3 Relationship of Base Area to Mountain Facilities

Particular consideration must be given to the relationship of a base area to its mountain facilities. In the case of alpine skiing, skiers should be able to gravitate naturally from the village and residential base areas to the mountain facilities, allowing convenient access to any of the ski lift systems originating in the mountain staging areas. Likewise, they should easily be able to return to their points of origin.

The base area facilities of a resort act as the focal point for social and recreational activities. These facilities reinforce and complement the on-mountain skiing facilities (the primary attraction during the ski season). Recognizing this, the base area facilities need to provide a compelling image for the resort, acting as an emotional/physical touchstone for the visitor's experience.

The resort experience begins the moment the resort is within sight. The organization of the base area facilities and the design of the resort's "critical mass" determine the sense of arrival. The sense of discovery – the ease of approach, drop-off, and parking followed by the subsequent ease of access to the various services and activities -- determine the guest's initial reactions to the resort. And once established, that first impression pretty much dictates the general mood of the visit.

Base area facilities need to provide a compelling image for the resort, acting as an emotional/physical touchstone for the visitor's experience.

Note: It can't be stressed enough how important it is for the base facilities -- while providing for the desired character and aesthetics of the resort – be structured in a logical fashion so as to function conveniently throughout the duration of a visitor's visit.

The orientation of structures should be placed to take advantage of the natural attributes of the site, (framing specific vistas and views, positioning building heights and roof lines for solar access and complementing all natural features) while respecting the environment and mitigating any negative impact. Generally, service functions should be located in areas of low visibility and away from noise-sensitive uses (i.e. overnight accommodation) so as to not affect the quality of the visitor experience. Finally, the organization of the departure experience -- in terms of direction, convenience, lack of conflict, etc. -- can play a huge role in the guest's overall evaluation of the resort. After all, it's the last impression of the place visitors get to experience.

The following are the key base area design objectives critical to the success of a mountain resort:

- The total capacity of the base area village facilities must be in balance with the BRC;
- The base area facilities must take into account the on-site overnight accommodation for public, private, and staff/employee beds as well as the resultant off-hill requirements and expectations (i.e. food services, groceries,

retail outlets, recreation facilities, entertainment facilities, service station, etc);

- The base area developments must address skier/pedestrian/vehicle movement, parking, and circulation patterns. Where possible, conflicting interfaces must be eliminated;

- The base area facilities must accommodate the needs of winter use visitors in a direct relationship with the skiing and snowplay facilities, while being flexible enough to be easily converted to off-season use, thus avoiding the establishment of facilities that stand idle throughout the summer;

- An identifiable "critical mass" or focal point within the base area should be created as a means of establishing the character of the resort;

- A variety of potential, complementary, and off-season activities for base area development must be considered. This can include building (or anticipating) facilities for such recreational activities as golf, equestrian sports, tennis, cross-country skiing, mountain biking, walking, hiking, skating, swimming, etc., as well as facilities for meetings, conventions, retreats, public functions, etc;

- Visitor drop-off and pick-up zones for both cars and buses must be incorporated into the design of each base area – and must be user-friendly;

- Parking lot capacities must be in balance with the day use capacities of the mountain facilities while taking into account the destination and residential parking requirements. Ideally, all parking should be within comfortable skier walking distances or with "ski to/ski from" capability;

- Large vertical transitions should be minimized;

- Development on or around environmentally sensitive areas must be avoided and mitigating action taken where necessary;

- The issues of visual attractiveness, site-specific circulation, ease of access, site grading, solar access, facility programming, hierarchy of use, etc., must be considered at a preliminary level during this stage of the process;

- Particular consideration should be given to the relationship of the base/village area to the mountain facilities and to the way it is linked to its mountain access system.

Whistler Village

II.5.4 Relationship of Ski Lifts to Ski Trails and Skier Circulation

The location of a resort's principal lifts and their associated queuing area requirements create the initial design

parameters in the determination and placement of base area structures.

The lift locations and size of queuing areas should be the end result of a careful analysis of the ability of the mountain to accommodate a specific number of skiers, both in an uphill and downhill capacity, matched to the perceived market blend of skier skill classes (see CCC, Section II.4.9).

The circulation of skiers to and from the mountain in conjunction with lift queues and ski trails invariably define areas that must be respected and maintained. Such areas are referred to as lift loading zones. The lift loading zones should be designed with flat to 1% gradients sloping toward the lift terminal in order to maximize lift-loading efficiencies. Lift loading efficiency is a measure that accounts for the ability (or inability) of a ski lift to be fully loaded, thus raising (or reducing) the lift's effective hourly capacity.

The off-loading ramps of the upper terminal must be carefully designed to move skiers/snowboarders away from the lift in an efficient manner. Typically, off-loading ramps are designed with a 5% slope gradient.

If down-loading is necessary, grades delivering skiers to the loading side of the upper terminal must be flat in order to effect efficient access to the lift. Carefully thought-out grading plans for all lift terminals are the key to the establishment of an efficient and enjoyable lift experience for customers.

In combination with a site analysis of the base area lands -- taking into account the specific factors of slopes, view, aspect, soils, hydrology, vegetation, solar access, manmade features, etc., -- the location of ski lifts and queuing areas will often define the base area focal point. This focal point should dictate the best location for the resort's staging and support facilities.

II.5.5 Skier Walking Distance

Skier walking distance relates to the distance visitors are willing to walk from parking lots and/or overnight accommodation to access the lifts (or the hill). Radiating out from the base area focal point, or from a "ski to/ski from" ski trail, skiers will generally walk approximately 400 meters before they begin to reject the experience. This distance should be further reduced by 100 meters for every 25 meters of vertical slope, taking into account all obstacles (streams, water bodies, rock outcrops and manmade features) that will be encountered on route.

Note: The area defined by this acceptable skier walking distance is typically the most valuable land in terms of the development and operation of a mountain resort.

All effort should be made to establish parking lots and skier-staging activities within this area. If essential facilities are located beyond this area, then problems with circulation and operational efficiency rise dramatically. This in turn increases costs, ultimately resulting in reduced profits and a less than satisfactory resort experience for the visitor.

II.5.6 Additional Guests

The space use requirements are a function of the BRC of the mountain resort. In addition, the number of non-participating guests must be taken into account. As a ratio of the BRC, the additional guests can be estimated as per the following by type of resort:

Community	1.00 - 1.05
Regional	1.05 - 1.10
Destination	1.10 - 1.25

It must be noted that these numbers are not absolute, but are intended to describe the approximate range of additional guests that must be taken into account while designing facilities at the resort. The applied ratio should be a function of the project specific goals.

II.5.7 Space Use Requirements

The total amount of built space -- and the location of that space -- is a function of the actual base area plan, taking into account the efficiencies of the layout and the amount of on-mountain development. This space should include the following: restaurants, kitchen, bar/lounge, restrooms, ski school, equipment rental/repair, retail sales, ski patrol/first aid, public lockers, day care/nursery, ticket sales, administration, employee lockers, storage, mechanical, circulation/wall, etc. Typically, the amount of built space in square meters per BRC by resort type is as follows:

Community	0.4 - 0.8
Regional	0.8 - 1.0
Destination	1.5 - 1.8

Additionally, site-specific considerations must be taken into account, such as the following:

- The amount of public and private overnight accommodation on site. This directly impacts the amount of pre- and post-skiing and snowplay facilities developed to provide a complete resort experience.
- The amount of duplication of facilities required as a result of multiple base areas.
- The amount of ski to/ski from private and public overnight accommodations located in close proximity to the base area. This affects the type and amount of support facilities and parking to be provided.
- The amount of on-mountain facilities, based on the physical potential of the mountain, expected skier circulation patterns, and preferred use of the mountain throughout the day.

II.5.8 Destination Space Use Requirements

Destination guests require and expect facilities and services above and beyond that of the day use visitor. Specifically, they are looking for pre and post skiing activities. The calculation of the amount of additional space required to cater to the needs of destination guests is a function of their characteristics. These requirements will vary. The guests in public beds

CONFERENCE CENTRE, WHISTLER

are occasional visitors and will be looking for a variety of restaurants, bars, tourist retail and entertainment. Guests in private beds are frequent visitors, such as those in second homes. Their needs are more diverse and would include grocery, pharmacy, general store, liquor, video, and services. In the largest form, these calculations will also need to take into account employee and permanent residents needs. Typically, a study justifying the appropriate amount of space to be developed should be completed. The ranges of destination space requirements for the different types of resorts are as follows:

Type of Resort	In Addition To Space Use Requirements
Regional Resort	0.2 sq m to 0.4 sq m
Destination	0.4 sq m to 0.8 sq m

II.5.9 Parking

The amount of parking can be determined by adding the resort's overall BRC to its additional guests calculations. Typically, 80 to 90 percent of the total guests will arrive by private car, with the remainder arriving by bus. However, every resort is unique and its' parking needs have to be reviewed in light of area-specific circumstances.

Parking lot capacities are determined based on a calculation of 2.8 to 3.0 passengers per car and 40 passengers per bus. The amount of parking must be in balance with the day use capacities of the mountain facilities, while taking into account the amount of destination and residential parking.

Ideally, all parking lots should be located within the area defined by the acceptable skier walking distance.

The amount of day-use parking developed at the resort can be reduced based on the amount and occupancy rates of "ski to/ski from" accommodation that already have self-contained provisions for parking.

NOTE: Visitors using accommodation beyond the acceptable skier walking distance are more likely to drive to the base area than they are to walk to and from the ski trails. As such, they must be considered as day use visitors (i.e. they will use the parking and base facilities in a fashion similar to conventional day-use guests, which then adds to the amount of parking that has to be established and maintained).

II.5.10 Base Area Staging

The comfortable capacity for a single base area portal for staging purposes is limited to between 5,500 and 6,000. Simply stated, it is physically very difficult, if not impossible to surpass these numbers and maintain guest expectations and acceptable human tolerance levels. This is due to the physical space requirements for base area buildings and parking, combined with:

- The fact that most skiers arrive and begin skiing within the first 1.5 to 2 hours of the day (the initial staging period).
- The time required for skiers to circulate through the base area facilities and into the ski lift queues.

- The uphill capacities of the out-of-base ski lifts.

- The probability of skiers returning to the out-of-base lifts within the initial staging period of the day.

- The downhill capacity of the ski trails returning to the base area. This fact has a significant impact on the organization and relationship of mountain facilities with the base area.

II.5.11 Overnight Accommodation

Overnight accommodations are measured in bed units (BU's). A bed unit is defined as the accommodation required for one person to stay overnight. Bed units can be publicly available on a night-by-night basis and/or privately available on a permanent basis for second home, resort residential and employee use. The amount and type of overnight accommodations are largely dependent upon what the tourist market will support in conjunction with the BRC. Depending on the perceived attributes of a proposed mountain resort development, Regional and Destination areas can purchase base area lands for bed unit allocations from TRD as per CASP.

The amount of accommodation, in terms of the number of BU's established at any mountain resort must take into account the following:

- All existing, proposed and potential development within the surrounding region.

- The physical potential within the resort's base lands. Overnight accommodation should only be contemplated if the environmental and physical capacity of the site can support such development, and provided that most development can take place within a reasonable walking distance of the ski lifts or within skiing distance to and from the lifts and trails.

- Perceived market demand and real estate absorption rates.

- Employee housing and resident restricted requirements.

Note: The skiing component of any successful mountain resort should be economically viable in its own right, without having to depend on the potential ongoing economic support of real estate development and sales within the base lands.

With careful planning, the development of overnight accommodation -- both private and public -- can significantly add to the success of the overall resort in terms of direct economic value and the indirect value of a built-in "captured" market for the ongoing operation of the resort.

HOTEL, SUN PEAKS

II.5.12 Bed Unit Calculation Model

The Bed Unit Calculation Model, (see Section II.7) is intended to prescribe a range of bed units that would be developed for a given mountain resort development.

II.5.12.1 Regional Mountain Resort

Some residential and second home/cottage accommodation may be considered at a Regional Resort if demand for such accommodation can be demonstrated. The bed unit calculation model specifies a ratio of Bed Units to Balanced Resort Capacity. The total points recorded within the model for both present and potential development should provide an understanding of the number of bed units that may be warranted.

Upon calculation of the total number of bed units, they must then be classified as public, private or employee. Typically, a regional resort should have a bed-unit ratio breakdown that delivers 20% to 25% public beds, 65% to 70% private beds, and 5% to 10% employee or resident restricted beds.

II.5.12.2 Destination Mountain Resort

A Destination Resort is based on truly unique attractions, features and facilities. As such, it has the ability to draw visitors from long distances. That's why destination resorts have to provide a full scope of tourist facilities serving local, regional and destination visitors (but with an emphasis on catering to the latter's specific needs). This means being able to develop a significant bed base at the resort, consisting of publicly available commercial beds, private bed subdivisions, and employee / resident restricted housing.

A destination resort should have a bed unit ratio breakdown that delivers 40% to 60% public beds, 30 to 50% private beds, and 10 to 20% employee or resident restricted beds.

II.5.13 Use of the Bed Unit Calculation Model

A key component in creating a resort's unique mountain experience lies in determining the appropriate amount of accommodation development rights in the form of bed units (BU's). In the submission of their development concept to TRD staff, applicants should acknowledge that the bed unit calculation is a guide and not an absolute. The final bed unit calculation incorporated into the Master Development Agreement will take into account many factors including the physical capacity of the land, existing and committed development at the ski area base and the surrounding region, market demand and employee housing needs.

Typically, single-family units have been assigned 6 bed units; multi-family 4 bed units; and hotel rooms 2 bed units each. Initially these numbers will still apply. However, as the concept moves to more detail, the following will come into play. Specifically, the number of bed units attached applies to the following forms of accommodation and are a function

of the size and type of unit, as adapted from experience in several resort communities (Table 9):

Table 9: Bed Unit Model

Form of Accommodation	Unit Size (Sq m)	Number of Bed Units
Residential Accommodation		
Single Family Unit	100-450	4 to 8
Multiple Family Unit	0-55	2
	55-100	3
	100-350	4 to 6
Duplex Unit	100-450	4 to 8 each side
Commercial Accommodation		
Guest Rooms	0-55	2
	55-100	3
	100-200	4 to 6
Tourist Pension	N/A	10 to 20
Bed and Breakfast	N/A	6 to 10
Campground	N/A	2 to 4 a site
Dorm/Hostel Bed	10	0.5

II.5.14 Public Versus Private Overnight Accommodations

Developing the appropriate ratio of public and private overnight accommodation can have a significant impact on the success or failure of a resort project. Public accommodation comprises bed units (BU's) available to any visitor to rent on a short-term basis typically referred to as "warm beds". These "warm beds" usually comprise hotels, hostels, condotels, multifamily dwellings, pensions, club cabins and may even include single-family dwellings.

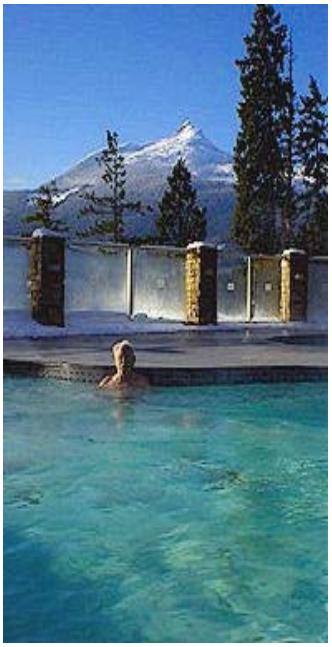
Private accommodation is made up of units solely used by the owners. They typically include single family, cabins, duplexes and multifamily units. As many of the units are only used on weekends (or even less frequently), these are referred to as cold beds.

"Warm beds" have a high degree of occupancy as compared to "cold beds". The greater the percentage of "warm beds" the more active and animated the resort. This has a very direct impact on the character and economic activity at the resort.

Determining the appropriate balance between "warm beds" and "cold beds" is a challenging exercise. The resultant ratio has a significant impact on the resort's positioning in the marketplace, the critical mass of resort retail, services and activities required and the amount of employee / resident accommodation needed to be present in a full time capacity. Most resorts try to maximize the number of available "warm beds" in order to meet the demand for nightly and weekly accommodation and fulfil infrastructure and amenity operating efficiencies, while at the same time not over saturating the market.

A resort developer can ensure "warm beds" through title restrictions and ownership mechanisms. Covenants may be registered on title of the property with either voluntary or mandatory obligations that require that the units be placed into a rental pool. The rental pool covenants are fundamental to a successful destination as they add value through increasing accommodation offerings, rental revenues for owners, and new and changing consumers for recreation amenities, shops and services. Warm beds should be developed closest to the resort core and mountain staging facilities to ensure vibrancy within the resort core. As most resorts expand

Public Accommodation, Whistler



through subsequent phases of development, the objective is to increase the percentage of publicly available beds.

Fractional and timeshare ownership is another mechanism within the real estate market that allows several individuals to own a portion of the property. These types of units typically have greater occupancy rates than privately held accommodation. As such, they too have an impact on the increasing use vibrancy of the resort.

II.5.15 "Ski to/Ski from" Accommodation

"Ski to/ski from" overnight accommodations involve BU's that are located within an acceptable skier walking distance to ski trails which access and egress the mountain's skiing facilities. The most desirable ski to/ski from developments are immediately adjacent to the ski trails, and are commonly referred to as "slope side accommodations". Real estate development beyond an acceptable skier walking distance cannot be considered a ski to/ski from opportunity.

Regardless of whether overnight accommodation is oriented to public or private use, if it is positioned such that it offers true ski to/ski from opportunities, a variety of significant design and planning issues come into play. These include the following:

- The amount of day use parking developed at the resort can be reduced based on the amount and occupancy rates of the ski to/ski from accommodation established with self-contained provisions for parking.

- Visitors using accommodation beyond the comfortable skier walking distance are more likely to drive to the base area then they are to walk or ski there. As such, they must be considered as day use visitors.

- The most valuable type of real estate development at ski resorts has proven to be ski to/ski from developments.

NOTE: One of BC's principal differentiators within the global tourism market is the preponderance of ski to/ ski from accommodation at major mountain resorts across the province. This is a trend that should be encouraged!

II.5.16 Employee / Resident Restricted Housing

A resort's employees – the local residents – are key to the character and quality of experience offered to its visitors. The "locals" are the lifeblood of the resort community, and as such, function as ambassadors for the experience. It is in the best interest of the resort to ensure that the employees live close and have access to the activities and services offered. This engagement becomes a challenge as the resort becomes more successful. Over time, seasonal and full time employees typically are less able to compete with the financial resources of investors and second homeowners finding it increasingly difficult to live within or near the resort. Unchecked, the resort becomes less and less affordable. Employees, critical to the

provision of all resort services (not just the operation of the resort) begin to move further away. Ultimately, this compromises the vibrancy and economic vitality of the resort.

Note: It is important to remember that mountain resort employees include everyone from seasonal workers (i.e. the ski bum coming to a resort for a once-in-a-lifetime experience) to permanently employed middle and senior management types (and even resort ownership). As a resort grows to greater size and prominence, this category also expands to include full time residents working at the resort in complementary support roles. In addition to hotel and food workers, guides, adventure operators and resort retail personnel, this group also includes contractors, service and infrastructure workers, police, doctors, and even teachers. For without these people, the resort cannot function in an authentic and genuine manner.

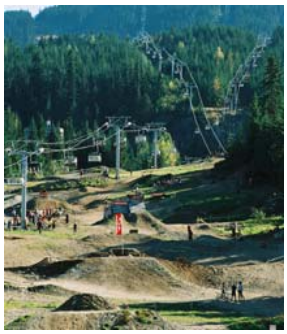
This laisse-faire approach of letting employees find their own way – encouraging (or providing them no other option) to live outside the resort area - will create a potentially divisive environment. Such competing needs negatively affect service levels, as unsatisfied and unfulfilled employees often do not meet the service expectations demanded by the resort's guests. In order to avoid "industrial tourism" – and to move towards ensuring a sustainable and successful resort, employees / residents must have the ability to live and play where they work. The sense of a local community ensures an authentic character of the place as well as enhanced four-season vitality for local businesses. Local discounts for amenities and affordable housing are key success strategies.

Employee housing may range from employer controlled dormitory units (for temporary and seasonal use) to price and resident restricted rental and fee-simple units such as condominiums, apartments and single-family homes (catering to the resort's permanent staff). To ensure inclusion, employee housing must be integrated into the resort development during at the Master Planning process considering land use and the proximity to employment centres, local services, transportation, infrastructure and community amenities. The employee housing should be effectively planned into the resort's development plans since it has direct impact on land use and infrastructure.

The employee and resident restricted accommodation should be integrated throughout the resort. They can comprise stand-alone units and developments, as well as found space in existing resort buildings and auxiliary suites. Depending on the resort's type, size, scale and location (in relation to housing stock in neighbouring communities) approximately 10% to 20% of the total bed units should be reserved for employee housing. The lands within the Master Plan and the Master Development Agreement should be secured for perpetual employee use and affordability through covenant restrictions registered on title. The mechanisms and responsibilities for administering, maintaining and enforcing the employee housing

Resident Housing

Employees must be able to live and play where they work.



Mountain Bike Park

restrictions must be determined in the planning stages of the entire resort.

NOTE: While many of the world's leading mountain resorts continue to struggle with the issue of employee housing, BC has been singularly proactive in producing new initiatives to deal with this matter. But this is not the time for either developers or government representatives to get complacent. As part of a successful 21st century mountain resort plan, the proper mechanisms must be put in place early to develop and sustain housing dedicated for employee use.

II.5.17 Year Round Development and Use

Regardless of the type of mountain resort envisioned, the Master Plan must take into account year round operations. More than ever, prospective developers need to consider their proposed facilities in light of multi-season use and the impact that these facilities will have on the physical and social environment. Generally, all effort should be made to ensure that the design of the resort is such that its lands are utilized in an efficient and well-balanced manner, year-round.

II.5.18 Balance of Facilities

In order to create a successful mountain resort experience, it is imperative that developers understand how to bring all the capacities of their facilities in balance. On the mountain, the uphill capacity of the ski lifts must be in balance with the downhill capacity of the ski trails. Furthermore, the overall capacity of the on-mountain skiing must be in balance with the ability breakdown of the skier marketplace. From this, the carrying capacity of the alpine skiing facilities is derived.

Not surprisingly, the capacity of the alpine skiing is generally the primary number to which the capacities of other "same season" facilities are added (Nordic skiing, snowshoeing, backcountry touring, tubing, heli-skiing, snowcat skiing, snowmobiling, etc.). To this is added the capacity of other same season attractions (water parks, hot springs / spas, convention facilities, etc.). The resultant **Balanced Resort Capacity** (BRC) defines the built space capacity requirements (restaurants, rest rooms, ski school, patrol, retail, administration, etc.) to service visitors' needs throughout the day, both on the mountain and in the base area (See Section II.4.12.1).

This then becomes the foundation from which to calculate the appropriate amount of accommodation to be developed, leading to an understanding of the size and scale of the resort's basic infrastructure requirements (power, sewer, and water), as well as the size and placement of the road network. Further, the amount of public parking required, which is also a direct function of the BRC, is impacted by such factors as walking distances to the core staging area(s) and placement and amount of ski to/ski from accommodation.

To establish balance of use (sustained prosperity) on a year-round basis, the amount of built space developed becomes the defining capacity for which "other season" facilities,

attractions and operational programming (festivals, events, etc.) should be designed.

II.5.19 Phased Development Concept

The implementation of the mountain resort development plan should be broken down into "phases". **Each phase of a resort's development must represent a finished and appealing product to the targeted marketplace.** Typically when a mountain resort's facilities are achieving utilization rates of 30-40%, it is time to consider expansion.

II.5.20 Implementation and Management Concept

Implementation, timing and phasing sequences are largely driven by economic considerations. As such, phasing should be, at least partially, tied to financial trigger points as defined by resort utilization thresholds. Any specifics pertaining to the implementation and management of the resort should be outlined. This section of the plan provides an opportunity to describe unique approaches to operations, timing and marketing -- all in relation to phasing.

II.5.21 Access and Traffic Impact

Access and traffic considerations are directly linked to the proposed capacity of development, and include the basic numbers of cars, buses, trains, planes and shuttles expected to make the resort function efficiently. Access to the resort should be considered on a phase-by-phase basis, consistent with each stage of the resort's development. Included in this discussion is a simple analysis of visitor volumes, travel times, peak use periods, and finally, estimates of the numbers of visitors arriving and departing the base area portals (designated by mode of transportation).

The resort development plans should respond to the following questions:

- Can this size of resort development be accessed by the existing road and highway network?
- What, if any, improvements are necessary?
- How will the resort's access (and/or road upgrades) be created by the proponent?
- What impact will each type of access have on the traffic network?

II.5.22 Infrastructure Assessment

The infrastructure facilities must be engineered to match the proposed capacity of the mountain resort. Preliminary calculations for power, sewer and water must be determined and planned for, consistent with each phase of development of the resort.

II.5.23 Environmental Assessment

The impact of the proposed development on the natural and social environment should be fully described. If the planning process has taken into account all environmentally

EACH PHASE OF A RESORT'S DEVELOPMENT MUST REPRESENT A FINISHED AND APPEALING PRODUCT TO THE TARGETED MARKETPLACE.

sensitive issues during the site inventory, environmental audit, and site analysis -- followed by a complete and accurate delineation of the development opportunities and constraints – then the resort concept should reflect minimal disruption. The proponent's discussion of environmental impact should make reference to baseline studies and impact assessments, as well as proposed mitigation and ongoing monitoring.

II.5.23.1 Environmental Assessment Act Projects

The Environmental Assessment Act states that if the size and scale of the proposed development surpasses the prescribed threshold points, the proponent will automatically be required to go through an environmental assessment review with the BC Environmental Assessment Office. The Resort Master Plan would be developed during the EA review process.

Projects subject to the Environmental Assessment Act are called "reviewable projects". For a new mountain resort to be reviewable, the resort development must be *"a commercial operation with attached commercial bed units catering to tourists that serve regional, provincial or international markets or any of them, as well as the local population"* (EAO Act). The **construction of new mountain resort** constitutes a reviewable project for the purposes of the Act if the proposed ski resort is to have 2,000 bed units or more of which at least 600 must be commercial public bed units.

THE MINISTER CAN DECLARE ANY PROJECT REVIEWABLE UNDER THE ENVIRONMENTAL ASSESSMENT ACT

The *Reviewable Projects Regulation* is available at:
(http://www.qp.gov.bc.ca/statreg/reg/E/EnvAssess/370_2002.htm)

For an existing resort to be reviewable, two tests must both be met as per the *Reviewable Projects Regulation* (BC Reg 370/2002):

Test #1

The existing facility must already meet the criteria for review of a new resort as defined in the *Reviewable Projects Regulation*, Table 15(4), Column 2:

- The facility is a ski resort development; and
- Has 2000 or more bed units bed units, of which 600 or more must be commercial public bed units.

Test #2

Where an existing resort meets Test #1, expansion of the resort would be a reviewable project if the expansion of the existing resort increases the number of bed units by 2000 or more bed units, of which 600 or more must be commercial public bed units.

This means that an existing resort, that currently has no bed units, or less than 2000 bed units, (of which less than 600 commercial bed units), could be expanded by any amount less than the 2000 (600 commercial) initially, and not be automatically subject to the environmental assessment process as a modification to a ski resort.

Once the initial expansion was completed, and if the facility were

built to a point where it exceeded the threshold in Test #1, then Test #2 would need to be applied to any further expansion to determine reviewability.

The initial expansion could still be subject to the Act if it triggers another section of the *Reviewable Projects Regulation*, or if the Minister decides to require an environmental assessment (Section 6), or if the Executive Director of the Environmental Assessment Office accepts a request from a proponent to designate the project as a reviewable project (Section 7). While a project may not trigger an EA under the resort section of the act, it is likely that any development with significant potential environmental impacts will be subject to an EA through some aspect of the act. These impacts can only be assessed through a detailed environmental review of the study area.

Eleven existing ski resorts that satisfy Test #1 were grand-parented through a Transition Regulation issued under the former Environmental Assessment Act and retain this standing under the new Act, provided that modifications to these resorts are consistent with the approved Resort Master Plans for each project.

Note: The Minister can declare any project reviewable under the Environmental Assessment Act

II.5.24 Market Analysis

The market analysis should be designed to determine the size and scale of the resort marketplace and its ability to support the proposed development. The following should be taken into account:

- Definition of the area and its characteristics -- in terms of the local market, regional market and destination market;
- Discussion of the local and regional competition,
- Discussion of impact on resort communities and neighbouring support communities;
- Evaluation of historic visitation figures at competing resorts;
- Projected visitor volumes and resort utilization on a phase-by-phase basis;
- Commentary on the ability of the market to support the proposed development in terms of market share, visitor patterns, captive rate, demographics and geographic origins;
- Projected visitation trends on a seasonal and year round basis, in terms of day use and destination visits.

II.5.25 Capital Cost Projections

An estimate of the capital costs of the proposed development on a phase-by-phase basis should be established as a baseline reference for analysis of the resort.

II.5.26 Economic Feasibility

Tied directly to the market analysis is the question of economic feasibility. This is best addressed by assessing the prospective resort's economic environment (both historic and present) and projecting these economic relationships forward, incorporating the results of the market analysis.

Once the economic relationships are established, financial tools such as breakeven analyses and cash flow or proforma operating projections should be utilized to interpret the impact of alternative operating scenarios (based on the proposed development's capacities on a phase-by-phase basis).

II.5.27 Social and Economic Impact

The predicted consequences of the proposed resort development on BC residents (on a local, regional and provincial level) should be fully discussed. Included in this discussion should be:

- A projection of the estimated number of construction and operational jobs the proposed development may create
- An examination of economic multipliers
- A description of the indirect and cumulative economic and social impacts on the community
- Estimates of the potential to complement any existing development.
- Capital investment by phase and at buildout

NOTE: Even at the concept stage, dialogue between the proponent and potentially affected parties, including First Nations, should be initiated in consultation with TRD. This offers a very effective way to identify and mitigate potential problems in advance of the formalization of the Resort Master Plan.

II.5.28 Financial Capability

Proponents must describe and demonstrate their capability to finance their project at least to the completion of approvals and the Master Development Agreement (MDA). Specific reference should be made to capital costs of development, proposed financing, operations strategy and relevant development experience.

II.5.29 Submission of Proposal

Upon submission, the Executive Director of MTSA's Tourism and Resort Development Division will coordinate a provincial interagency and local government review of the proposals.

II.5.31 Interim Agreement

Government Decision Point in the Process

Once approved to move to the next stage, the successful proponent will be offered the opportunity to sign an Interim Agreement to proceed to the Master Planning Stage of the mountain resort.

If the EA process applies, upon signing of an Interim Agreement, the proposal will move into the pre-application phase for an environmental assessment.

II.6 Mountain Resort Planning: The Master Plan Stage

(The Mountain Resort Master Plan)

II.6.1 Introduction

Once the Interim Agreement is in place, the Master Planning of the mountain resort can then be initiated. This will effectively be a further refinement to the Concept Plans and the formal proposal that were generated during the Proposal Call. As summarized in the Interim Agreement, any issues identified during the concept review, the interagency review, and public meetings, must be rectified within the Master Plan.

The final Resort Master Plan document will act as the reference point from which the Master Development Agreement (MDA) and all other approvals, permits and tenure will be based. Further, performance evaluations of operations and subsequent requests for amendments and expansion will look to the Resort Master Plan as the starting point of the review.

The Resort Master Plan should be divided into sections leading methodically through the planning process from, and including:

- a description of the project goals and objectives,
- site inventory and analysis,
- concept generation,
- the resort facilities plans,
- implementation,
- economic feasibility,
- and financial capability.

Specific elements to be contained within the Resort Master Plan are described in the following sections.

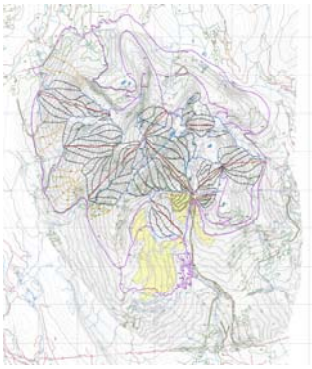
II.6.2 Executive Summary

The Resort Master Plan for the proposed project, regardless of size and scale, should be initiated with an Executive Summary, effectively and briefly describing all elements of the proposed resort development plans.

II.6.3 Project Vision Goals and Objectives

The project vision, goals and objectives should now be very focused, having been refined at each stage of the planning process. This needs to be clearly described and delineated.

If the EA Act applies, it will go into pre application stage once the interim agreement is signed with the Province



Example of Site Mapping with a Portion at a 5m Contour Interval

II.6.4 Site Mapping

For the purposes of the Resort Master Plan, detailed site mapping is required. Mountain planning should be completed utilizing topographic mapping with a 5-metre contour interval. Likewise, the areas of more detailed development in the base should be completed using mapping with a 1 metre contour interval. In addition, all planimetric features (roads, buildings, water courses, vegetation, etc.) and all cadastral information (legal lot lines, tenure boundaries, political boundaries, etc.) need to be directly associated and geo-referenced to the topographic information. Further, computer generated 3D modelling, orthophotos and even animated "fly-bys" should be considered as they have proven to be powerful communication tools, especially when introducing the project to an uninitiated audience (government officials, the public, financial institutions, First Nations, etc.).

II.6.5 Site Inventory

The information gathered during the Concept Stage will largely remain sufficient to describe the Master Plan content. If not already complete, it should be graphically illustrated and described, as this information forms the basis for determining and describing the rationale behind the plans.

II.6.6 Environmental Audit

Like the site inventory, documentation already used to describe the environmental components of the study area and its surroundings may be sufficient to act as a complement to the final plans. The exception will be a detailed review of specifics in response to any shortcomings identified in the concept review process.

II.6.7 Site Analysis

The various site analyses (slope, elevation, aspect, fall-line, Opportunities and Constraints, etc.) should be generated utilizing the detailed map base described above. The content of the analyses should be carefully documented and included in the Resort Master Plan as a description that rationally leads to the final plans.

II.6.8 The Mountain Plan

The Mountain Plan should graphically and verbally describe the location of the ski lifts and ski trails in relation to all on-mountain and base area facilities, maintenance buildings, parking lots, roads, overnight accommodation (if applicable) and any other facilities (recreation, multi-season uses, adjacent uses, etc.). The plan should be complete (having fully explored all aspects of the design potential) and should accurately portray the expected final development.

The details of the ski lifts (type of lift, alignments, terminal elevations, vertical, rated hourly capacity, slope distance, and horizontal distance) must be listed. The Comfortable Carrying Capacity, as it relates to skiing, the type of terrain, ski trails and ski lift service, should be outlined and described. Likewise, the details of the ski trails (top and bottom elevations, vertical drop, horizontal length, slope

length, maximum and average gradients, average widths, area, and skier skill class) should be listed. The ski trails should also be listed in conjunction with the ski lift used to access those trails. A downhill capacity, based on acceptable densities per hectare relative to skier/snowboarder skill class, must be stated (see Section II.4 for details).

NOTE: Additional facilities (beyond the ski lifts and trails) need to be accounted for as well since it is on this number (the Balanced Resort Capacity) that all development in the base area/village is based.

II.6.9 Base Area/Village Plan

The base area space use requirements, parking and infrastructure calculations, bed unit calculations, overnight accommodations (public, private and employee) destination space, year round use, etc., all act as the basis for detailed base area plans. As part of the Resort Master Plan, all aspects of these components must be fully explored, designed and documented.

II.6.9.1 Bed Unit Total

The total number of agreed-upon bed units becomes part of the Master Development Agreement (MDA). The Base Area/Village Plan should provide initial bed unit calculations, as outlined in Section II.7. Equally stipulated in the Agreement is the ratio of bed unit types (public, private and employee) to be allocated on a phase-by-phase basis. Bed unit allocations should also be included in the Base/Village Plan. The MDA then becomes the "source-of record" for keeping track of the bed units as they are developed over time. Development rights are also subject to land use approvals of the local jurisdictions.

II.6.10 Infrastructure and Road Network Plans

Plans delineating the preliminary engineering for the resort (water, sewer and power) as well as the primary road network right of ways must be developed, describing all aspects of the proposed servicing of the resort tied directly to the balanced capacities established in the Mountain and Base Area Plans.

II.6.11 Phased Development Plan

All aspects of the proposed development must be fully described on a phase-by-phase basis. At this point in the process, the proponent must be able to demonstrate how each phase (and even each component within a phase) is complete and self-contained -- while leading sequentially toward buildout. Too many resorts have operated in the past with obvious gaps in the resort facilities, while developers prepared for their next construction phase. This has a detrimental effect on the operation of a resort and a less-than-desired impact on the ultimate success of the project.

RED MOUNTAIN MASTER PLAN

NOTE: Each phase should be looked upon as a completed resort development where the BRC of the mountain's facilities must be balanced with the capacity of staging and support facilities as well as infrastructure developed in the base – for use on a year round basis.

II.6.12 Environmental Mitigation Plan

Regardless of the size and type of resort being planned, a full Environmental Mitigation Plan must be included within the Resort Master Plan. This will describe the actions to be taken during and after construction of all facilities. The focus here should be directed on re-establishing the original "feel" of the site following construction, as the beauty of the natural environment is one of the key attractions of mountain resort developments. The Environmental Mitigation Plan should include a landscape plan, a re-vegetation plan, construction specifications, etc.

The *Sustainable Slopes Charter* as developed and maintained by the National Ski Areas Association (NSAA) provides a good example of an environmental approach to mountain resort development and ongoing operation. (see Chapter I : Introduction, Mountain Resort References)

II.6.13 Management Plan

All specifics pertaining to the management of the resort should be outlined.

THE MASTER DEVELOPMENT AGREEMENT THEN BECOMES THE "SOURCE-OF RECORD" FOR KEEPING TRACK OF THE BED UNITS AS THEY ARE DEVELOPED OVER TIME.

II.6.14 Implementation Program

The implementation of the Mountain Resort Master Plan should be described on a phase-by-phase basis. This should include a description of how the development of the mountain facilities and the base area facilities (along with the associated accommodation) will be coordinated.

Note: Mountain resort development in BC functions on a system of "perform and reward". Based on the agreed-upon phased development of the resort (as per the MDA), the prospective developer must establish facilities on the mountain (to a predetermined BRC) before the Crown will entertain the purchase of base area lands (which are then tied to the appropriate number, type and mix of bed units).

II.6.15 Market Analysis

Any shortcomings identified in the market analysis should be addressed and researched as discussed in Section II.5.24.

II.6.16 Economic Feasibility

The economic feasibility plans discussed in Section II.5.26 should be refined to address any shortcomings or questions.

The increased detail of these plans should enable a more precise capital cost estimate, break-even analysis and cash flow / proforma operating projections.

II.6.17 Financial Capability

Proponents must describe and demonstrate their capability to develop the first phase of a financially viable mountain resort before the Province will sign the MDA. This is directly associated with the economic analysis within the Master Plan illustrating a positive cash flow. In order to ensure that the proposed development can be profitable on its own (without the support of real estate sales), specific reference must be made to the capital costs for development and access infrastructure, financing, operations strategy, and relevant development experience.

II.6.18 Public Review

During the planning process, it is the proponent's responsibility to involve the public in order to identify and resolve problems before the resort plans are implemented. The final Master Plan should fully consider the results of the public consultation. For additional public review considerations see Chapter I : Introduction.

II.6.19 First Nations

The establishment of positive relationships with First Nations is key to the successful completion of mountain resort projects in BC. All efforts should be made to consult with local First Nations representatives at the earliest possible moment in the development process. The proponent's efforts around consultation should be coordinated with those of the Province. These efforts and any agreements, memorandums of understanding, joint ventures, etc. should all be documented within the Master Plan.

II.6.20 Local Jurisdiction

The proponent should frequently consult with local government regarding the status of the Master Plan and pending provincial approvals. A strong working relationship with the proponent and municipal government is important to ensure a positive transition from the Master Plan to local land use approvals. Consideration of local jurisdictions should be incorporated into the earlier stages of the process.

II.6.21 Resort Master Plan Submission

Upon completion of all of the key elements of the final Resort Master Plan, the document should be submitted to TRD for review. At that point, TRD staff will coordinate a provincial interagency and local government review of the submission.

II.6.22 Master Development Agreement

Once the Resort Master Plan has been approved, the applicant should make any final requested refinements, outline final investors and financial capabilities, and submit the plans as a basis for the Master Development Agreement (MDA) and for all development permits.

II.6.23 Operating Agreement

Once the MDA and all permits are in place, tenures can be issued and the applicant may proceed to initiate

The Master Development Agreement will take into account many factors including the physical capacity of the land, existing and committed development at the ski area base and the surrounding region, market demand and employee housing needs.

construction and subsequently open the resort for operations.

II. 7 Bed Unit Calculation Models – Mountain Resorts

II.7.1 Alpine Skiing Bed Unit Calculation Model

The Alpine Skiing Bed Unit Calculation Model is intended to assist in determining the number of bed units that may be warranted for application to the mountain resort that is primarily driven by lift serviced alpine skiing. Based on their perceived attributes, Regional and Destination Mountain Resorts are eligible to build a specified number of bed units within their proposed base area. Based on designed site plans, bed units can be assigned to specific sites within the base area. If this is Crown land, it may be purchased from the Crown through TRD as per the Commercial Alpine Skiing Policy. Community Mountain Resorts are not eligible for bed units.

Each step in the Bed Unit Calculation Model assigns point values based on the specific existing and proposed attributes of the mountain resort under consideration in terms of its Balanced Resort Capacity (BRC). The total points determine the appropriate ratio of bed units to BRC.

II.7.1.1 Ski Terrain

The distribution of ski terrain by ability level:

Novice (10-25% slopes)	15% of terrain
Intermediate (25-45% slopes)	55% of terrain
Advanced (45-80% slopes)	30% of terrain

Points	Criterion
1	Over 35% of area either advanced or novice terrain
2	25-35% of area either advanced and/or novice terrain
3	Close to ideal slope ratio
4	Ideal slope ratio

II.7.1.2 Average Skier Density per Hectare (Ski Trail Area/CCC)

Points	Criterion
0	> 40 /ha
1	30 - 40 /ha
2	25 - 30/ha
3	20 - 25/ha
4	15 - 20/ha

II.7.1.3 Accessibility

Travel time to the skier marketplace:

Points	Criterion
0	Less than 0.5 hour
1	0.5 to 1 hour
2	1 to 1.5 hours
3	1.5 to 2 hours
4	2 to 2.5 hours
5	2.5 to 3 hours
6	Greater that 3 hours

II.7.1.4 Access Reliability

Points	Criterion
1	Highly reliable (main highway with short mountain road)
2	Somewhat unreliable (snow and avalanche closures)

II.7.1.5 Population Within 250 Kilometers

Points	Criterion
1	0 to 30,000
2	30,000 to 100,000
3	100,000 to 250,000
4	250,000 to 500,000
5	500,000+

II.7.1.6 Unique Existing Qualities Other Than Skiing

Located adjacent to the mountain resort under consideration, this may include: a major provincial or national park, hot springs, convention facilities, other significant resorts, etc.

Points	Criterion
1	Nothing unusual
2	Regional attraction
3	National attraction

II.7.1.7 All Season Facilities at the Mountain Resort

Points	Criterion
0	Limited (undeveloped with little potential)
1	Fair (some potential for recreation facilities)
2	Good (tennis courts, swimming pool, some mountain biking, etc.)
3	Very Good (18 hole golf course, formalized mountain biking, tennis, swimming pool)
4	Excellent (several 18 hole golf courses, 6 or more tennis courts, swimming pool, arena, hiking, lift serviced mountain biking, spa, beaches, water park, etc.)

II.7.1.8 Potential Length of Season

(based on natural and manmade snow)

Good to excellent snowpack for:

Points	Criterion
0	Less than 100 days
1	Less than 115 days
2	115 to 130 days
3	130 to 150 days
4	More than 150 days

II.7.1.9 Type of Snow

Points	Criterion
0	Dry less than 25% of season
1	Dry 25 to 50% of season
2	Dry 50 to 75% of season
3	Dry 75 to 90% of season
4	Dry over 90% of season

II.7.1.10 Weather Conditions

Number of hours of bright sunshine per year:

Points	Criterion
1	Less than 1,000 hours
2	1,000 to 1,500 hours
3	1,500 to 2,000 hours
4	Greater than 2,000 hours

II.7.1.11 Express Lifts

Points	Criterion
0	None
1	Less than 50% of aerial lifts
2	More than 50% of aerial lifts

II.7.1.12 Need for Employee (Resident Restricted) Housing

Generally, the total number of employees and residents at regional and destination mountain resorts represents 10-20% of the BRC, increasing with the size of the resort. If there is an established bed base that can supply this size of work force within a 15-minute drive of the resort core, then there is a reduced immediate need for employee housing on site. However, it is important for the developer to understand and acknowledge that as the resort becomes progressively more successful, what was readily available as employee and resident accommodation becomes progressively less affordable. This gradually erodes the supply of housing as the resort grows. As such, the successful resort will enable and encourage employees to live at or in close proximity to the resort. Points are awarded based on the percentage of employee housing developed at the resort.

Points	Criterion
0	0% of employee / resident restricted bed base provided for at the resort
1	25% of employee / resident restricted bed base provided for at the resort
2	50% of employee / resident restricted bed base provided for at the resort
3	75% of employee / resident restricted bed base provided for at the resort
4	100% of employee / resident restricted bed base provided for at the resort

II.7.1.13 First Nations Economic Participation in Resort Development

As part of MTCA's over-arching strategy to encourage First Nations' participation in resort developments, proponents will be awarded points in the bed unit calculation model for the level of First Nations' participation in the economic aspects of the resort. A high level of First Nations participation in the resort development is expected to result in aboriginal-focused tourism above what may be realized in a resort that focuses strictly on all season recreation activities. This is expected to result in the need for additional bed units.

Points will be awarded on the following basis: to qualify at a given point level, all of the criteria (as described in the bullets) must be satisfied.

Points	Criterion
1	• Resort provides non-economic benefits to the First Nations - providing ski passes for First Nation band members - promotion of First Nation cultural activities - promotion of First Nation economic activities
2	• First Nation businesses are given opportunity to bid on resort-related contracts • Proponent provides First Nations employment opportunities • Proponent provides First Nations training opportunities
3	• Proponent provides joint venture economic opportunities with the First Nations (ie. aspects of the resort development are done under a joint-venture arrangement) • Aboriginal ecotourism is an integral part of the resort tourism activities • Proponent provides First Nations employment opportunities • Proponent provides First Nations training opportunities
4	• First Nations equity partnership • Aboriginal ecotourism is an integral part of the resort tourism activities • Proponent provides First Nations employment opportunities • Proponent provides First Nations training opportunities

II.7.2 Potential Need and Calculation of Bed Units

Based on the Total Points Rating, as calculated with the bed unit model, the following chart indicates the ratio (percentage) of bed units to BRC.

Total Points Rating	Total % of BRC
30	80%
31	85%
32	90%
33	95%
34	100%
35	105%
36	110%
37	115%
38	120%
39	125%
40	130%
41	135%
42	140%
43	145%
44	150%
45	155%
46	160%
47	165%
48	170%
49	175%
50	180%

II.7.3 Application

As such, the number of bed units at a resort is determined by multiplying the BRC times the percentage correlating with the total points rating. For example:

attributes of the mountain resort under consideration in terms of its Balanced Resort Capacity (BRC). The total points determine the appropriate ratio of bed units to BRC.

Balanced Resort Capacity	Bed Unit Calculation Model (Ski) Point Rating	Associated Percentage	Allocated Bed Units
5,000	30	80%	4,000
5,000	34	100%	5,000
5,000	45	155%	7,750

Note: Upon completion of the total number of bed units, they must be classified as Public, Private or Resident Restricted (Employee).

II.7.4 Non-Ski Bed Unit Calculation Model

The Non-Ski Bed Unit Calculation Model is intended to assist in determining the number of bed units that may be warranted for application to the mountain resort that is primarily driven by activities that do not require uphill transportation (i.e. ski lifts). Based on the resort site plans, bed units can be assigned to development sites within the base area. If this is Crown land, it may be purchased from TRD as per CASP, which forms part of the All Season Resort Policy.

Each step in the Bed Unit Calculation Model assigns point values based on the specific existing and proposed

II.7.4.1 Recreational Activities

Type of recreational activities offered (within walking distance of the resort core):

Points	Criterion
1	Primary Core (hotel/lodge and dining)
2	Core plus single use trail system (hiking, mountain biking, horseback) and limited retreat facilities, or core plus golf course
3	Core plus multi-use hierarchy trail system, training facilities and/or health spa / wellness centre and/or golf course
4	Core plus multi-use hierarchy trail system, training facilities and health spa / wellness centre and golf course

II.7.4.2 Water Access (Within 5 Minute Walk of Resort Core)

Points	Criterion
1	Public Pool (swimming programs, training, etc)
2	Aqua Park (water slides, wave pool, lazy river) plus swimming pool
3	Lake/ocean/river beach with swimming / paddling access plus water park and / or pool
4	Lake/ocean/river beach with swimming / paddling access or boating etc. plus water park and / or pool
5	Lake/ ocean/ river paddling access and boating (windsurfing and / or water skiing / wake boarding) plus water park and / or pool

II.7.4.3 Accessibility

Travel time to the resort:

Points	Criterion
0	Less than 0.5 hour
1	0.5 to 1 hour
2	1 to 1.5 hours
3	1.5 to 2 hours
4	2 to 2.5 hours
5	2.5 to 3 hours
6	Greater that 3 hours

II.7.4.4 Access Reliability

Travel reliability to the resort:

Points	Criterion
1	Highly reliable (main highway with short mountain road)
2	Somewhat reliable (secondary roads; long unpaved backcountry sections; potential closures, ferries required etc.)

II.7.4.5 Population Within 250 Kilometers

Points	Criterion
1	0 to 30,000
2	30,000 to 100,000
3	100,000 to 250,000
4	250,000 to 500,000
5	500,000 +

II.7.4.6 Unique Existing Qualities Other Than Principal Activities

Located adjacent to the mountain resort under consideration, this may include: a major provincial or national park, hot springs, convention facilities, other significant resorts, etc.

Points	Criterion
1	Nothing unusual
2	Regional attraction
3	National attraction

II.7.4.7 All Season Facilities - the Mountain Resort

All-season experiences within 30 minutes of resort:

Points	Criterion
0	Limited (undeveloped with little potential)
1	Fair (some potential for recreation facilities)
2	Good (limited lift serviced mountain access; tennis courts, swimming pool, some mountain biking, etc.)
3	Very Good (18 hole golf course; lift serviced mountain biking; tennis and/or swimming)
4	Excellent (several 18 hole golf courses, 6 or more tennis courts, swimming pool, arena, hiking, lift serviced mountain biking, spa, beaches, water park, etc.)

II.7.4.8 Potential Length of Primary Season

Points	Criterion
0	Less than 100 days
1	Less than 115 days
2	115 to 130 days
3	130 to 150 days
4	More than 150 days

II.7.4.9 Mountain Amenities

Points	Criterion
0	Disjointed and disorganized
1	All resort facilities concentrated in the valley
2	Valley and some on-mountain facilities
3	Well planned and integrated variety of valley, on-mountain and summit facilities
4	Well planned, integrated, and programmed variety of valley, on-mountain and summit facilities

II.7.4.10 Weather Conditions

Number of hours of bright sunshine per year:

Points	Criterion
1	Less than 1,000 hours
2	1,000 to 1,500 hours
3	1,500 to 2,000 hours
4	Greater than 2,000 hours

II.7.4.11 Off-Season Mountain Access and Facilities

Points	Criterion
0	None
1	Some managed trails and related infrastructure
2	Some all-season lift access to mountain summit and slopes
3	All-season lift access to mountain summit and slopes, with small scale / limited capacity ski and snowboard programming

II.7.4.12 Need for Employee / Resident Restricted Housing

Generally, the total number of employees and residents at regional and destination mountain resorts represents 10-20% of the BRC, increasing with the size of the resort.

If there is an established bed base than can supply this size of work force within a 15-minute drive of the resort core, then there is a reduced immediate need for employee housing on site. However, it is important for the developer to understand and acknowledge that as the resort becomes progressively more successful, what was readily available as employee and resident accommodation becomes progressively less affordable. This gradually erodes the supply of housing as the resort grows. As such, the successful resort will enable and encourage employees to live at or in close proximity to the resort. Points are awarded based on the percentage of employee / resident restricted housing developed at the resort.

Points	Criterion
0	0% of employee / resident restricted bed base provided for at the resort
1	25% of employee / resident restricted bed base provided for at the resort
2	50% of employee / resident restricted bed base provided for at the resort
3	75% of employee / resident restricted bed base provided for at the resort
4	100% of employee / resident restricted bed base provided for at the resort

II.7.4.13 First Nations Economic Participation in Resort Development

As part of MTCA's over-arching strategy to encourage First Nations' participation in resort developments, proponents will be awarded points in the bed unit calculation model for the level of First Nations' participation in the economic aspects of the resort. A high level of First Nations participation in the resort development is expected to result in aboriginal-focused tourism above what may be realized in a resort that focuses strictly on all season recreation activities. This is expected to result in the need for additional bed units.

Points will be awarded on the following basis: to qualify at a given point level, all of the criteria (as described in the bullets) must be satisfied.

Points	Criterion
1	• Resort provides non-economic benefits to the First Nations - providing ski passes for First Nation band members - promotion of First Nation cultural activities - promotion of First Nation economic activities
2	• First Nation businesses are given opportunity to bid on resort-related contracts • Proponent provides First Nations employment opportunities • Proponent provides First Nations training opportunities
3	• Proponent provides joint venture economic opportunities with the First Nations (ie. aspects of the resort development are done under a joint-venture arrangement) • Aboriginal ecotourism is an integral part of the resort tourism activities • Proponent provides First Nations employment opportunities • Proponent provides First Nations training opportunities
4	• First Nations equity partnership • Aboriginal ecotourism is an integral part of the resort tourism activities • Proponent provides First Nations employment opportunities • Proponent provides First Nations training opportunities

II.7.5 Potential Need and Calculation of Bed Units

Based on the Total Points Rating, as calculated with the bed unit model, the following chart indicates the ratio (percentage) of bed units to BRC.

Total Points Rating	Total % of BRC
32	80%
33	85%
34	90%
35	95%
36	100%
37	105%
38	110%
39	115%
40	120%
41	125%
42	130%
43	135%
44	140%
45	145%
46	150%
47	155%
48	160%
49	165%
50	170%
51	175%
52	180%

II.7.6 Application

As such, the number of bed units at a mountain resort are determined by multiplying the BRC times the percentage correlating with the total points rating.

Balanced Resort Capacity	Bed Unit Calculation Model (Non-Ski) Point Rating	Associated %	Allocated Bed Units
1,500	32	80%	1,200
1,500	36	100%	1,500
1,500	47	155%	2,325

Note: Upon completion of the total number of bed units, they must be classified as Public, Private or Resident Restricted (Employee).